SIE

Securities Industry Essentials Exam

LICENSE EXAM MANUAL

3RD EDITION

Contents

SIE Exam and Industry Introduction

What Is the SIE?

The Securities Industry Essentials (SIE or Essentials) Exam, launched on October 1, 2018, is a regulatory exam required for all individuals entering the securities business. The SIE is an introductory-level exam, which requires you to demonstrate a mastery of the financial industry essentials, in other words, all of the fundamental information that candidates entering the industry should know.

Anyone who is 18 or older is eligible to sit for the SIE; association with a registered securities firm (aka a broker-dealer) is not required. This means you are permitted to take the exam either before or after being hired by a firm. This is a big change within the securities industry, as, historically, individuals were required to be employed and sponsored by a registered firm in order to take any qualification exams.

The Financial Industry Regulatory Authority (FINRA), one of the primary regulatory bodies within the industry, has made the SIE available to everyone as a means to open the door to the securities industry and inspire more individuals to enter the business. College students, MBAs, career-changers, military veterans, and anyone else interested in pursuing a job in the financial services industry can take the SIE to demonstrate his or her knowledge of the business and stand out in the crowded field of job applicants. Passing the SIE is now the first step to a successful career in the securities business.

However, passing the SIE Exam alone does not qualify you to engage in securities business. To become fully registered, you are required to pass a second, more specialized qualification exam (e.g., the Series 6, Series 7, or Series 79) based on the type of business you will engage in. Unlike the SIE, the "top off" exam can only be taken once you are associated with and sponsored by a registered securities firm.

To account for the potential time lag between passing the SIE Exam and securing a job, the SIE credential is valid for four years. Therefore, once you pass the SIE, you will have four years to become associated with a broker-dealer and pass the required top-off exam.

How the Exam Is Structured

The SIE is a 75-question, computer-based, multiple-choice exam, with each question consisting of four answer choices. The passing score on the SIE is 70%. Although your score is calculated based on 75 exam questions, you will actually complete 85 questions. The extra 10 questions are ungraded, and used by FINRA for possible inclusion in future exams. You will not know which questions are ungraded, however, as they will be randomly distributed throughout your exam. You will be given 1 hour and 45 minutes to complete the exam.

Although each exam is uniquely generated from a large question bank, all exams cover the same four major topic areas that FINRA deems essential for securities professionals to know. Questions from these four sections are randomly mixed through the exam. The table below lists the four areas, as well as the relevant chapters in this book.

Section	Description	Percentage of Exam	Number of Questions	Textbook Chapters
1	Knowledge of Capital Markets	16%	12	8–10
2	Understanding Products and Their Risks	44%	33	1–7
3	Understanding Trading, Customer Accounts, and Prohibited Activities	31%	23	8, 11, 12
4	Overview of the Regulatory Framework	9%	7	13–14
	Total	**100%**	**75**	

Before the exam clock begins, an online tutorial will familiarize you with how the system operates. The system is easy to use—no prior experience is necessary, though you can review the tutorial as much as needed before you begin the exam.

Among the features of the exam are:

- A clock display that can be turned on/off so you can track the time remaining. You may find the actual exam questions to be longer, with more extraneous information than the practice questions. As such, it is important to check the timer periodically to ensure you are on target to finish the exam.
- A confirmation box that appears each time you answer a question so you can confirm your answer before proceeding to the next question
- The ability to mark questions you wish to review later so you can easily go back to them
- The exam is designed so that the questions at the beginning and end are easier than the questions in the middle

At the end of the allowed testing time, or when you voluntarily stop your exam, your score will be calculated and a score report will be displayed. The score report will show whether you passed the exam, and you will be given a copy of this report when you leave the center.

How to Make an Exam Appointment

The SIE Exam is offered at Prometric testing centers. The cost for scheduling the exam is $60. You may either register online or call the testing center to make your appointment:

- **Prometric**

  Call (800) 578-6273 or visit www.prometric.com/finra.

Examination appointments are available Monday through Friday, with some locations offering appointments on weekends. To get your desired date, schedule your session as far in advance as possible.

If needed, you may cancel an exam appointment before the scheduled session. To avoid cancellation or rescheduling fees, candidates seeking to alter a scheduled FINRA qualification exam must do so a minimum of 10 business days in advance. Appointments cancelled or rescheduled within 10 business days will result in the assessment of one of the following fees:

Three- to Ten-Business-Day Cancellation/Reschedule Fee: Individuals who cancel or reschedule an appointment within three to 10 business days of a scheduled session will be assessed a cancellation/reschedule fee equal to approximately half the cost of the examination. At the time of rescheduling, these fees will be collected by the testing center.

Late Cancellation/Reschedule Fee (Within Two Business Days of Appointment): Individuals who cancel or reschedule an appointment within two business days of a scheduled session, or who fail to show up for an exam, will incur a fee equal to the fee of the examination.

A cancellation or rescheduling will be considered timely if effected according to the following schedule:

Appointment is scheduled for:	To avoid a late cancellation/reschedule fee (within two business days of appointment), the appointment must be cancelled or rescheduled by midnight, Eastern Time (ET), on:	To avoid a 3–10 business day cancel/reschedule fee, the appointment must be cancelled or rescheduled by midnight, Eastern Time (ET), on:
Sunday, Monday	Wednesday of the preceding week	Sunday two weeks before
Tuesday	Thursday of the preceding week	Monday two weeks before
Wednesday	Sunday of the same week	Tuesday two weeks before
Thursday	Monday of the same week	Wednesday two weeks before
Friday	Tuesday of the same week	Thursday two weeks before
Saturday	Wednesday of the same week	Friday two weeks before

On the Day of Your Exam

Plan to arrive at your exam location 30–45 minutes before your scheduled appointment time. To gain admission, you must provide a valid government-issued form of ID with your signature and your picture. Acceptable forms of ID include your driver’s license, passport, or military ID.

You will be required to sign the center’s sign-in log, agree to the rules of conduct through your signature, and provide a fingerprint.

The exam is closed-book, and you cannot bring any notes, books, or other personal items into the testing center. Any personal effects (e.g., phones, laptops, watches, etc.) must be left in a locker or another location provided by the testing center. The center’s staff will provide candidates with scratch paper—typically laminated paper with a dry-erase marker—and a basic, four-function calculator. Do not bring your own calculator with you for your exam—you will not be allowed to use it.

All materials must be returned to the testing center staff at the end of the session.

Some students find the resources provided at the testing centers to be of a poorer quality than those they used while studying for the exam. Specifically, the calculator may be quite small, with few digits available on the screen. This will require you to abbreviate numbers when doing calculations—for example, 14.7 instead of 14,700,000. It is a good idea to practice using a similarly small, four-function calculator.

Similarly, you may want to purchase a dry-erase marker and a small erasable pad to practice on, in order to simulate test conditions as closely as possible.

Knopman Marks Method

There is no real "shortcut" to preparing for the SIE Exam. There are, however, certain things you can do to make the process as efficient and effective as possible. For starters, once you begin preparing, make the exam a high priority. This means setting aside study time each day, including on weekends. For those who are working or are in class full-time during the week, it is important to block time to study in the evenings or first thing in the morning—even if it's just forty-five minutes or an hour. Limiting your preparation to weekends only is often counterproductive and inefficient, as you will forget much of what you studied if you go four or five days without reviewing the information. Finally, be sure to study in a quiet, well-lit place to maximize your productivity.

So how should you get started? To begin, we recommend completing the SIE assessment exam, which can be accessed through the "Practice Exams" link in your Training Center at www.knopman.com. This exam will help establish your baseline level of knowledge of the testable content, while providing insight into the types of questions you should focus on and the level of mastery you must reach to successfully pass the exam.

After completing the assessment exam, we recommend reading through this entire manual. Our SIE textbook has been designed to present the testable information in a streamlined, exam-focused manner. Keep in mind that **the goal of reading this textbook is general understanding, rather than retention**. We do not expect you to memorize every detail. Instead, read to gain exposure to the testable information and a bird's eye view of how the different aspects fit together. **We do not recommend taking notes while you read** (though highlighting is fine). The retention will come later when you watch our online lectures and work through the practice exams.

Note that the textbook first covers securities products and capital markets and then moves into the brokerage process and industry regulations. If you are comfortable with basic finance concepts, you might want to start by reading Chapter 11 onward and then come back to the beginning of the book.

> **Throughout this book, certain heavily tested concepts are identified as Knopman Notes with gray shading and bold text. Please be sure to pay special attention to these callouts, as they highlight important testable points.**

Although the textbook is comprehensive, it is not meant to be your only study tool. We have designed the textbook to complement our other resources, especially our on-demand video lectures and question bank. Our online study resources can be accessed in your Training Center at www.knopman.com.

After completing the textbook reading, start watching our video lectures. When watching the online lectures, take detailed notes by hand (this results in better retention and recollection than typing). These classes focus on the most heavily tested and difficult concepts on the exam.

After finishing the textbook and watching our online lectures, the focus then becomes completing full practice exams on all of the material. As you complete these exams, use only new questions from the question bank to ensure that you are grasping and mastering the concepts, rather than memorizing practice questions from before. It is also important to read the answer and rationale for each practice question so you can understand why you got the question right or wrong. Repetition and careful review of the questions is essential to mastering the material. If you keep getting questions from a certain area wrong, return to the textbook and online lectures referenced in the question's explanation.

Prior to the actual exam, your goal should be to consistently pass the last few practice exams to ensure you are in a strong position and can walk into the exam with confidence.

Although the practice questions in these materials are similar to the questions you will see on the exam, they are not exact replicas. You may even see questions on your exam that cover information you don't feel prepared for. Don't lose confidence—if you have prepared well, you will meet the minimum passing criteria in spite of not knowing the answers to some questions. Confidence is key.

> ***Knopman Note:*** **For additional information on how to prepare, please review the Action Plan in your Training Center.**

It is important to recognize that everyone learns differently. As such, what helped your colleague or friend or spouse prepare for this exam may be different than what works for you. Please do not hesitate to contact us if you would like to discuss a study strategy or plan.

Finally, our materials are constantly being updated to reflect new content and rule changes. Please contact us before your examination to ensure you are aware of any updated content.

We hope that you find our materials useful and encourage you to contact us at material@knopman.com or (212) 626-6899 should you have any questions throughout the study process. Good luck!

> ***Knopman Note:*** **Many additional supplements are available in your Training Center. Be sure to log in and spend significant time reviewing these supplements.**

Financial Industry Introduction

While the essential aspects of the securities business will be discussed throughout this textbook, it is important that you have a foundational knowledge of all major players within the industry—both the regulators of the industry as well as market participants.

Regulatory Entities and Agencies

The securities markets contain trillions of dollars of invested cash. Because so much is at stake, the financial industry is very heavily regulated in order to maintain the integrity and fairness of the financial system. This regulation may be handled by both government and non-government entities. This section will introduce the key regulators that SIE candidates need to be familiar with.

- **The Securities and Exchange Commission (SEC)**—You can think of the SEC as the "top watchdog" of the securities industry. It is the government agency primarily responsible for enforcing federal securities laws, such as the Securities Act of 1933, which regulates new issues of securities, and the Securities Exchange Act of 1934, which regulates the secondary marketplace, including securities trading and exchanges.
- **Self-regulatory organizations (SROs)**—Organizations that are delegated authority by the SEC to handle some of the day-to-day regulation and oversight of the securities business. The three main SROs that are covered on this exam are:
  - **Chicago Board Options Exchange (CBOE)**—The world's largest options exchange, which is also tasked with regulating the options marketplace and options trading
  - **Financial Industry Regulatory Authority (FINRA)**—Focuses on protecting investors through the registration and regulation of brokerage firms and their employees. FINRA is the entity that requires qualification exams, including the SIE.
  - **Municipal Securities Rulemaking Board (MSRB)**—Responsible for regulating the municipal securities industry and all securities firms and professionals involved in the trading, underwriting, sales, and advising of municipal securities
- **Treasury Department**—A federal-government department that is primarily responsible for managing the finances (revenues and expenses) of the US government. The Treasury includes a number of bureaus that are designed to carry out specific operations. The three essential bureaus that are covered on the SIE Exam are:
  - **Internal Revenue Service (IRS)**—Responsible for collecting tax revenue and administering tax laws
  - **Financial Crimes Enforcement Network (FinCEN)**—Works with banks and other financial institutions to prevent financial crimes, such as money laundering
  - **Office of Foreign Assets Control (OFAC)**—Maintains a list of persons, entities, and countries that the US is prohibited from doing business with. Examples include terrorists and countries for which the US has sanctions, such as North Korea
- **Federal Reserve (the Fed)**—The central bank in the US, responsible for determining the amount of money in circulation to influence economic growth,

inflation, unemployment, and currency exchange rates. The Fed has three main tools to achieve its goals, all of which will be discussed in detail: 1) open market transactions, 2) the discount rate, and 3) reserve requirements.

- **Securities Investor Protection Corporation (SIPC)**—A not-for-profit corporation that protects customer brokerage accounts in the event that a broker-dealer goes bankrupt.
- **Federal Deposit Insurance Corporation (FDIC)**—A US government corporation that insures customer bank deposits. Note that the SIPC protects brokerage accounts (stocks, bonds, mutual funds, etc.), while the FDIC protects bank accounts (savings and checking accounts).
- **State regulators (NASAA)**—In addition to federal regulation, each state has securities laws in place designed to protect the investing public. NASAA, which is the North American Securities Administrators Association, is the advisory body of state securities regulators that creates many of these laws and state-registration requirements. These state regulations are often referred to as **blue sky laws**.

Market Participants

In addition to the regulators that keep a watchful eye on the securities industry, it is important to know about the various market participants involved in securities transactions and in facilitating trades. As you will see throughout this textbook, trading is more complicated than one party buying and one party selling. All the other parties that support these trades, from broker-dealers to clearing corporations, must be considered. This section will introduce key market participants that SIE candidates need to be familiar with.

- **Investors**—The individuals, corporations, governments, and other entities that invest, i.e., that purchase and sell securities. As we will discuss, not every security is appropriate for every investor, so it is important to distinguish between different types of investors, a few of which are detailed below:
    - **Retail investors**—Individuals who buy and sell securities for their own personal accounts. These investors typically trade in the smallest amounts and often in the least advanced types of securities. Because they often lack industry sophistication, retail investors are granted the greatest protections by federal and state regulators.
    - **Institutional investors**—Large institutions, such as mutual funds, banks, and insurance companies, that trade securities for their investment portfolios. Because these institutions are typically more sophisticated, they more freely engage in larger and more complicated transactions.
    - **Accredited investors**—Includes high-net-worth individuals and institutions. These investors are permitted to freely invest in **private placements**, i.e., the securities of private companies that have not been publicly registered with the SEC. Because private-placement securities are considered extremely risky, only high-net-worth individuals and institutions can invest, as they can afford this risk.
- **Broker-dealers**—Sometimes referred to in this textbook as **brokerage firms**, these firms trade securities for their own accounts or on behalf of their customers. You

can think of broker-dealers as the heart and soul of the securities business, as they are the main facilitators of securities trading. Depending on which services they offer and the nature of their business, broker-dealers fall into different categories and are subject to different FINRA regulations:

- **Introducing firm**—A broker-dealer that has a direct relationship with clients. Introducing firms open client accounts, recommend appropriate trades, and place orders, but they do not handle the mechanics of the settlement process.
- **Clearing firm**—A broker-dealer that handles back-office details of the trade to ensure the transaction successfully settles, meaning the buyer actually gets the purchased security and the seller actually receives payment.
- **Prime broker**—A broker-dealer that facilitates large and complex trading operations, such as those of hedge funds, by offering a set of bundled and specialized services to those clients. Examples of services that might be provided include clearing services, risk-management, financing, and securities lending.

- **Issuer**—Includes both corporations and governments that sell securities (either stocks or bonds) to raise capital. When these new securities are sold to the public, they must be appropriately registered with the SEC unless an exemption from registration exists.
- **Underwriter**—A firm that helps an issuer market and sell securities to investors. To accomplish this, in many deals, especially public offerings (private versus public offerings are discussed later), the underwriter will buy the securities from the issuer and look to resell them to the public. Whatever the underwriter cannot resell, it owns and is financially liable for. In most public offerings, a group of underwriters work together to spread out this risk.
- **Investment adviser**—Any person or firm that provides securities-related advice to customers on a regular basis for a fee. Advisers can manage accounts ranging from individual portfolios to entire mutual fund portfolios. Investment advisers are regulated under the SEC's Investment Advisers Act of 1940.
- **Municipal advisor**—Any person or firm that provides advice to a municipal entity (e.g., a state or city) with respect to municipal-securities issuances or investments. For example, a firm advising New York City on how to structure an offering of securities would be a municipal advisor.
- **Market maker**—A firm that stands ready to buy and sell a specified number of shares of stock at a publicly quoted price during normal market hours. Market makers help create liquidity in the market, allowing shares to be easily bought or sold. There is one designated market maker per security on the New York Stock Exchange, whereas on Nasdaq there can be many market makers per security.
- **Trader**—An individual employed by broker-dealers and other financial institutions to conduct the actual trading of securities. Those who work on the "buy side" handle the portfolio management and investment needs of asset management companies and other institutional investors, such as mutual funds and insurance companies. Those who work on the "sell side" manage the inventory and trading of the broker-dealer.

- **Custodian**—A person that is responsible for managing another individual's account and making investment decisions for that person. For example, a parent that is managing their child's minor account would be considered a custodian.
- **Trustee**—An entity, typically a large bank, that is legally empowered to act in the best interest of bondholders by ensuring the issuer meets all its promises
- **Transfer agent**—A person who maintains records regarding the transfer or exchange of securities between investors to ensure that ownership is properly assigned in each transaction
- **Depositories and clearing corporations**—Corporations that facilitate the exchange of securities and the resulting payment between investors by centralizing and standardizing the settlement process. In addition, these corporations take on counterparty risk by stepping between the original buyer and seller of the contract and guaranteeing the financial obligations of the contract.
  - **Depository Trust & Clearing Corporation (DTCC)**—A holding company that consists of five separate clearing corporations, making it the world's largest financial company offering the clearing activities mentioned above
  - **Options Clearing Corporation (OCC)**—The world's largest clearing corporation for options trades (discussed later)

Section 1:

Understanding Products and Their Risks

Securities industry professionals require a foundational knowledge of the different securities products, their characteristics, and their associated risks. The first section of this textbook includes a discussion of the essential products that SIE candidates should be familiar with; who these securities are appropriate for; and the benefits and risks of each.

KNOPMANMARKS
FINANCIAL TRAINING

1. Equity Securities

Corporations are business entities that are owned by their investors. In order to raise money to operate, corporations often sell securities, including stocks and bonds. **Stock** is equity capital, which means it gives buyers an ownership stake in the corporation. An investor owning even one share of stock will have a claim on the company's assets and profits.

This chapter will discuss the types of **equity securities** as well as the terms, procedures, and characteristics associated with them.

Chapter Goals

- Know the rights, features, and risks of owning common stock.
- Differentiate between common stock, preferred stock, rights, warrants, and ADRs.
- Understand the types of preferred stock and their impact on a customer's return.
- Describe the dividend payment process and its sequence of events.
- Calculate the impact of stock splits and stock dividends on an investor's position.
- Understand short sales and their objective.

Key Terms

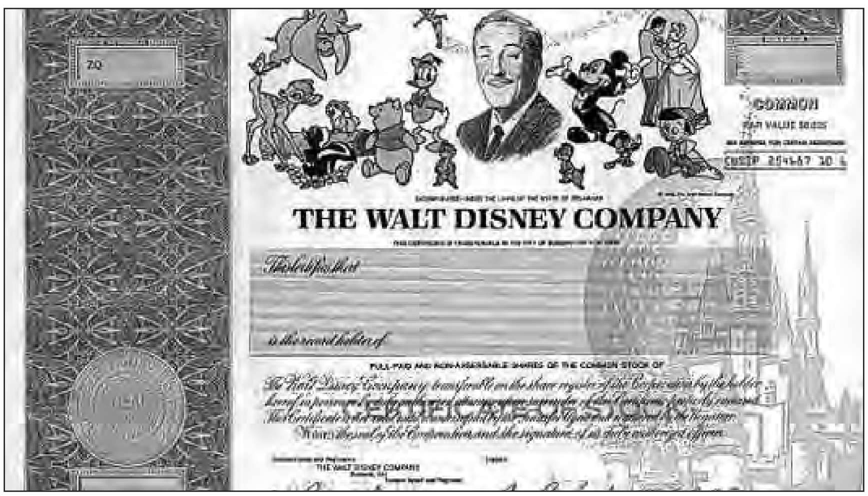
- **Common stock**—Equity security that represents ownership, giving investors a claim on the company's assets and earnings, and offering the potential for growth (capital gains) and/or income (dividends)
- **Preferred stock**—Equity security that represents ownership that is senior in priority to common stock. It pays a regular, fixed dividend payment.
- **Rights**—Allow shareholders to buy shares to maintain their proportionate ownership in the company if the company issues additional shares
- **Warrants**—Give an investor the ability to purchase a company's stock at a fixed price for a set period of time; generally, they are provided by the company in conjunction with another security (e.g., a bond or preferred stock) to make the security more attractive.
- **American depositary receipts (ADRs)**—Facilitate the US trading of foreign common stock
- **Dividends**—Distributions of a company's profits to shareholders; they are generally paid in cash or in additional shares of stock and must be declared by the company's board of directors.

- **Ex-dividend date**—The first date that when an investor buys common stock, the investor will not receive the dividend because they will not be on the books and records of the company in time
- **Stock split**—An artificial adjustment of a company's stock price and number of shares, with no actual change to the total value of the issuer or of an investor's position
- **Short sale**—A transaction in which an investor, believing the price will decline, sells borrowed shares in the market, hoping to buy back and replace the shares at a lower price than what they were initially sold for

1.1 Common Stock

Common stock is the most widely held equity security. These shares are purchased primarily for the appreciation potential they provide if the issuing company performs well and increases in value. Until the late 1990s, purchasers received physical **stock certificates** that represented their ownership interest in the corporation. Now, almost all common stockholders are handled in **book-entry form**, which means that, rather than the investor receiving a certificate, the broker-dealer keeps a record in its books of the ownership of that particular security.

A Disney stock certificate can be seen below.



When a company decides to offer stock to the public, the state in which it is incorporated must approve the number of shares the corporation can sell. This approved number of shares is called **authorized stock**. The shares of authorized stock that are sold to the public are known as **issued stock**, and are referred to as **outstanding shares** when they are in the hands of investors. Shares that are issued to investors and subsequently repurchased by the company are **treasury shares**. **Treasury stock** is not included when calculating a company's total outstanding shares.

Example

A company with 10 million shares outstanding buys back one million shares. This repurchase will reduce the company's outstanding share count to nine million, with one million shares now considered treasury stock.

Knopman Note: **As treasury stock increases, the company's outstanding share count decreases. Additionally, because treasury shares are no longer investor owned, the shares do not receive dividends or have voting rights.**

Some states require that the authorized shares be assigned a nominal value to provide a minimum amount of legal capital to pay creditors. This is the stock's **par value** and is often $1 or less. Par value for common stock is not at all relevant to investors. Par value is set low because the stock cannot be issued for less than par value. In some states, stock can also be issued as **no-par value**.

1.1.1 Ownership Rights of Common Stock

As an owner of the company's common stock, a **shareholder** is entitled to certain legal rights of ownership. In addition to the right to transfer the ownership of shares to someone else by sale or gift, other substantial rights are associated with stock ownership.

1.1.1.1 Limited Liability

Just as investors profit as the company's value increases, they risk a decline in the value of their investments if the corporation performs poorly. Put another way, they can lose money. However, shareholders have **limited liability**, which means that they are only on the hook for the amount invested and cannot lose more than their original investment.

1.1.1.2 Voting Rights

Holders of common stock exercise control by electing a board of directors and voting on corporate policy. Each share of stock generally gives the shareholder one vote for each director position. Voting may be carried out by one of two methods:

- **Statutory voting** allows the shareholder to vote one time per share for each seat on the board of directors. For example, if an investor owns 10 common shares and two board seats are to be filled, the investor has up to 10 votes to cast for each of two directors seeking election to the board.
- **Cumulative voting** allows the shareholder to pool votes together and then allocate them as desired. Using the example above, the shareholder has a total of 20 votes for the 10 shares that are held (10 votes for each of the two seats). The shareholder can cast 20 votes for one candidate, 15 for one candidate and five for another, or any other allocation preferred by the investor.

Knopman Note: **Make sure to understand the difference between statutory versus cumulative voting.**

Example

Tarik owns 200 shares of XYZ Corp and 200 shares of ABC Corp XYZ offers statutory voting rights, whereas ABC offers cumulative voting rights. Both companies have five seats on the board and nine directors seeking election. Tarik's proxies for each of the companies are below.

	Tarik's Votes for XYZ Directors	Tarik's Votes for ABC Directors
Nominee #1:	0	0
Nominee #2:	200	0
Nominee #3:	0	500
Nominee #4:	200	0
Nominee #5:	200	0
Nominee #6:	0	0
Nominee #7:	200	500
Nominee #8:	200	0
Nominee #9:	0	0
Total Votes:	**1,000**	**1,000**

Note: Under statutory voting rights, Tarik can vote up to 200 times for each of five directors.

With cumulative voting rights, Tarik has 1,000 total votes (5 Seats × 200 Shares) and can allocate those votes in any manner he chooses.

If a stockholder cannot attend a meeting to vote in person, votes can be cast by **proxy** through an absentee ballot.

Knopman Note: **If a company decides to increase the size of its board of directors, the new board members are elected by shareholders, not chosen by company executives.**

Most securities positions are held in **street name**, where the broker-dealer with the customer's account is the nominal owner and the customer is the beneficial owner. Being the beneficial owner means the customer retains all rights of ownership, including the right to vote. Street name registration allows for ease of transfer when securities are bought and sold. In the case of street name ownership, the broker-dealer must promptly forward all proxy materials to the beneficial owner.

Proxy statements are SEC-required disclosures that are sent to solicit shareholder votes for the election of corporate directors at annual meetings and for material corporate events, such as mergers. The information contained in proxy materials must be filed with the SEC in advance of the shareholder solicitation, and the proxy must disclose all important facts upon which shareholders are to vote. Although a formal proxy statement is usually dozens of pages, proxy cards contain the information in a condensed form. Google's proxy card can be seen below.

Google

MR A SAMPLE
DESIGNATION (IF ANY)
ADD 1
ADD 2
ADD 3
ADD 4
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Electronic Voting Instructions

You can vote by Internet or telephone!
Available 24 hours a day, 7 days a week!

Instead of mailing your proxy, you may choose one of the two voting methods outlined below to vote your proxy.

VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR.

Proxies submitted by the Internet or telephone must be received by 1:00 a.m., Central Time, on May 8, 2008.

Vote by Internet
- Log on to the Internet and go to www.envisionreports.com/goog
- Click on Annual Meeting
- Follow the steps outlined on the secured website.

Vote by telephone
- Call toll free 1-800-652-VOTE (8683) within the United States, Canada & Puerto Rico any time on a touch tone telephone. There is **NO CHARGE** to you for the call.
- Follow the instructions provided by the recorded message.

Using a **black ink** pen, mark your votes with an **X** as shown in this example. Please do not write outside the designated areas. X

Annual Meeting Proxy Card

▼ IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

A Election of Directors — The Board of Directors recommends a vote FOR the listed nominees.

1. Nominees:

Nominee	For	Withhold	Nominee	For	Withhold	Nominee	For	Withhold
01 - Eric Schmidt	☐	☐	02 - Sergey Brin	☐	☐	03 - Larry Page	☐	☐
04 - L. John Doerr	☐	☐	05 - John L. Hennessy	☐	☐	06 - Arthur D. Levinson	☐	☐
07 - Ann Mather	☐	☐	08 - Paul S. Otellini	☐	☐	09 - K. Ram Shriram	☐	☐
10 - Shirley M. Tilghman	☐	☐						

B Proposals — The Board of Directors recommends a vote FOR Proposals 2 and 3 and AGAINST Proposal 4 and 5.

Proposal	For	Against	Abstain	Proposal	For	Against	Abstain
2. Ratification of the appointment of Ernst & Young LLP as the independent registered public accounting firm of Google Inc. for the fiscal year ending December 31, 2008.	☐	☐	☐	4. Stockholder proposal regarding internet censorship.	☐	☐	☐
3. Approval of an amendment to Google's 2004 Stock Plan to increase the number of authorized shares of Class A common stock issuable thereunder by 6,500,000.	☐	☐	☐	5. Stockholder proposal regarding the creation of a Board Committee on Human Rights.	☐	☐	☐

C Non-Voting Items

Change of Address — Please print new address below.

Meeting Attendance Mark box to the right if you plan to attend the Annual Meeting. ☐

IF VOTING BY MAIL, YOU MUST COMPLETE SECTIONS A - D ON BOTH SIDES OF THIS CARD.

C 1234567890 J N T
1 U P X 0 1 6 9 8 8 1

1.1.1.3 Financial Reports and Company Information

Shareholders have the right to access certain financial information about the company and to receive audited financial reports, for example a **Form 10-K**. Furthermore, shareholders may inspect the company's books, its records, and minutes from shareholder meetings. This information is usually made available in an annual report to shareholders.

> ***Knopman Note:*** **A 10-K must typically be filed with the SEC within 90 days of a company's fiscal year-end.**

1.1.1.4 Claim to Company Assets and Earnings

Common stockholders are on the bottom of the priority ladder for ownership claims. In the event of **liquidation**, or bankruptcy, common shareholders have rights to a company's assets only after bondholders, general creditors, and preferred shareholders have been paid in full.

> ***Knopman Note:*** **Common stockholders are paid last in a liquidation.**

1.1.1.5 Dividends

Investors that buy stock can earn a profit in two ways:

- **Capital gains**, which is the buying of stock at one price and selling it at a higher price. Take note, investors only pay taxes on realized capital gains, which is generated when an investor sells a security for a profit. Unrealized capital gains, which is the increase in value of the security, is not taxed until the investor actually sells it. These are sometimes referred to as **paper** gains and have no immediate tax impact.
- **Dividends**

Common shareholders have the right to receive dividend distributions declared by the board of directors. **Dividends** are a share of the corporation's profits; if they are to be paid, a specified amount is allocated for each outstanding share. For example, a company could pay a dividend of $0.25 per share. Companies may choose not to pay dividends and instead reinvest profits for greater growth, as is commonly done by growth or research-oriented companies.

When the stock market declines, holders of dividend-paying stocks still receive income, which may attract income-seeking investors even in a poor market.

Dividend payment procedures will be discussed in detail later in this chapter.

1.1.1.6 Pre-Emptive Rights

One way a company can raise additional capital is by offering new shares to existing shareholders. A **rights offering** gives shareholders the right to acquire additional shares, proportionate to their current holdings, at a stated price. In this scenario, common shareholders are given **pre-emptive rights**, also known as **subscription rights**. Investors are given a short timeframe—typically between 30 and 45 days—to decide whether or not they want to exercise these rights.

This practice gives current owners the option of maintaining their proportionate ownership interest in the company and preventing **dilution**, or the reduction of their ownership interest.

> ***Example***
>
> If a shareholder owns 5% of a company, and the company issues 100,000 new shares of stock, the company will allow the shareholder to buy at least 5,000 shares of stock at a specified price before it is offered to the public. The shareholder can opt to purchase all, some, or none of the 5,000 new shares.

Because new shares available through rights are sold at a discount, the rights have value and are traded separately on the open market. If the rights are trading separately, the stock is said to be trading **ex-rights** and is worth less than the same stock with rights attached.

Pre-emptive rights are rare for US companies, and their existence is determined either by the law of the state in which the corporation resides or its corporate charter.

Knopman Note: **Pre-emptive rights give investors the right to maintain a proportionate interest in a company's stock, not increase it.**

Pop Quiz 1 *(Chapter 1)*

1. Lance owns 1,000 shares of ABC Co. common stock, and he has pre-emptive rights. The company currently has one million common shares authorized and outstanding. If the company is issuing 100,000 new common shares in a public offering, how can Lance maintain his proportionate ownership in the company?

   A. He must subscribe to the public offering.

   B. He must exercise the rights he is awarded.

   C. He must go into the market and buy more shares at the best available price.

   D. He probably will not be able to maintain his proportionate ownership.

2. If ABC Co. common stock currently is trading at $50 per share just before the new stock offering, at what price will Lance be able to buy new shares, assuming he tries to maintain proportionate ownership?

   A. Below $50 per share

   B. At $50 per share

   C. At $50 per share plus commission

   D. Above $50 per share

Answers to chapter 1 pop quizzes begin on page 36

1.1.1.7 Warrants

Like a right, a **warrant** entitles the holder to buy the issuer's stock at a specified price for a period of time. However, a warrant is a long-term instrument, generally five years or more in term, and the exercise price of the warrant is usually substantially higher than the stock price at the time of issue. Warrants become exercisable only if the stock appreciates over the long term above the exercise price.

Warrants are frequently attached to bonds or preferred stock as a sweetener, allowing the issuer to pay a lower interest rate or dividend. Like rights, warrants may also trade separately on the open market.

Example

Facebook is issuing bonds, and to make the issuance more marketable to investors, Facebook attaches a warrant to the bond. The warrant has a strike price of $250, allowing investors to purchase shares of Facebook at the price of $250 per share. If Facebook is currently only worth $175 per share, an investor would not want to exercise the warrant and buy Facebook at $250. When would the investor want to exercise the warrant? The investor would want to exercise if the price of Facebook increases *above* $250 per share.

For example, if Facebook stock is worth $300 per share, an investor would love to exercise his warrant and buy at the discounted price of $250.

***Knopman Note:* A few points to remember about rights and warrants:**

- **Rights and warrants may trade as independent securities in the secondary market.**
- **Warrants typically remain outstanding longer than rights.**
- **Warrants are generally not issued with intrinsic value, meaning they are issued with an exercise price above the current market value of the stock. They are not valuable until the stock's price increases.**
- **The market value of a warrant is connected to the value of the underlying stock.**
- **Warrants are typically issued by a company in conjunction with another security to make that other security more attractive to investors. Unlike pre-emptive rights, warrants do not prevent dilution.**

1.1.1.8 Rights Versus Warrants

While both rights and warrants effectively allow investors to buy shares of common stock, key differences between the two are reinforced in the table below.

	Rights	Warrants
Purpose	Allows shareholders to maintain their proportionate ownership of the company when new shares are issued	Issued in connection with another security as a way to make that security more attractive to investors
Exercise Price	Below the current market value	Above the current market value
Timeframe	Short-term	Long-term

1.2 Classifying Common Stock

The type of stock that is most appropriate for an investor depends on factors such as the investor's financial profile and the economic environment. This section will examine some of the key categories of common stock and identify the features that make it suitable for meeting different investment objectives.

1.2.1 Classification by Investment Profile

Stocks may be classified by their investment characteristics. These characteristics help registered representatives determine what stocks to recommend to investors who have different investment objectives.

1.2.1.1 Blue Chip Stocks

Stocks of large, stable companies with a long history of steady earnings and dividends are known as **blue chip stocks**. These are issues of well-known companies, many of which are included in the Dow Jones Industrial Average and trade on the New York Stock Exchange

(NYSE) or Nasdaq. General Electric, IBM, Coca-Cola, and Pfizer are examples of blue chip stocks. Because of their size, they offer modest growth potential but produce a steady income stream because they generally pay a consistent dividend.

1.2.1.2 Income Stocks

Income stocks produce income—typically in the form of dividends—for their investors. These are generally companies that operate in mature industries and have low investments in research and development. Utility stocks are an example of stock that pays steady income. REITs, discussed later, also pay regular dividends.

1.2.1.3 Cyclical Stocks

Cyclical stocks mirror the economy, strengthening when the economy is growing and declining in value as the economy contracts. Companies that supply capital equipment for businesses or high-ticket consumer items, such as cars and large appliances, are cyclical.

1.2.1.4 Defensive Stocks

Defensive stocks are resistant to changes in economic cycles. Even when most consumers and businesses cut back spending, some companies continue to profit because they supply a basic need, offer a way to cut costs, or have the lowest prices. Examples of defensive stocks include utility stocks, stocks of staple consumer items, and stocks of discount retailers like Wal-Mart.

1.2.1.5 Growth Stocks

Growth stocks are stocks of companies that reinvest most of their earnings into their businesses. Growth stocks are considered risky. If a growth-oriented company doesn't grow as fast as anticipated, its price will drop, even if earnings remain stable. Investors purchase growth stocks for their potential to produce capital gains.

1.2.2 Penny Stocks

A **penny stock** is an unlisted stock trading for less than $5 per share. If a security is **unlisted** that means the security is not found on a national stock exchange, such as Nasdaq or the NYSE. Instead, penny stocks trade in the **over-the-counter (OTC) marketplace** and are quoted on the **OTC Bulletin Board** or **OTC Markets** (previously known as OTC Pink or Pink Sheets).

Investors purchase penny stocks with the goal of capital appreciation. Because of their low stock price and general lack of liquidity, penny stocks are considered extremely risky securities. Additionally, because of their speculative nature and the fact that historically there has been a higher risk of fraud and manipulation associated with these securities, registered representatives are subject to heightened regulatory requirements when soliciting (or initiating) penny stock transactions with a client.

> ***Knopman Note:*** **Penny stocks are OTC equity securities worth less than $5 per share. Because they are unlisted and low priced, penny stocks are riskier, more volatile, and less liquid than blue chip stocks.**

1.3 Risks of Owning Common Stock

Potential benefits of purchasing common stock include growth and income. However, there are no guarantees that an investment will achieve these results. The two major risks associated with common stock investments are described below.

1.3.1 Systematic Risk

Often referred to as overall **market risk**, **systematic risk**, or **systemic risk**, this risk reflects the fact that the performance of an individual security will be impacted by the performance of the overall market.

Example

If the S&P 500 falls 3%, it is likely that an investor's Facebook investment will also decline that day.

Market risk cannot be avoided through **diversification**, which is a risk-management technique that mixes a wide variety of investments within a portfolio. The rationale behind diversification is that the positive performance of some investments will neutralize the negative performance of others. But, if the market drops today, most sectors and securities are likely to fall with it.

Some common sources of systematic risk are recessions, wars, significant political events, and interest rate changes. Though systematic risk cannot be avoided through diversification, it can be hedged with investments in **derivatives**, such as options, which will be discussed in a later chapter. These investments create offsetting positions that can protect the portfolio by either limiting loss or locking in a certain amount of gain.

1.3.2 Non-Systematic Risk

Unlike systematic risk, which influences a large number of assets, **non-systematic/non-systemic risk**, also referred to as **business risk**, generally will not impact an investor's entire portfolio. For this reason, it is often called **specific risk**. Changes in corporate management or product recalls, which could impact a single stock, are examples of what can present this type of risk. The best protection against non-systematic risk is portfolio diversification, meaning the investor should not put all of his eggs in one basket.

Another way of thinking about business risk is that it represents the possibility of a company making poor decisions that negatively impact the performance of its stock.

Example

Blockbuster Video was a ubiquitous VHS and DVD rental chain in the 1990s. However, it failed to adapt when Netflix, Redbox, and video on-demand services came onto the scene. Within a few years, Blockbuster was out of business. Investors who owned Blockbuster stock were likely disappointed, but for individuals who owned other stocks besides Blockbuster (maybe even Netflix!), the overall impact on their portfolios was muted.

1.4 Depositary Receipts

Many investors prefer to diversify their portfolio holdings with ownership of foreign securities. However, buying foreign stock can be cumbersome due to foreign regulation and currency issues. Depositary receipts provide domestic investors convenient access to foreign shares. Like US stocks, they offer the potential for capital appreciation and dividend income.

1.4.1 American Depositary Receipts (ADRs)

American depositary receipts (ADRs) represent ownership in the shares of non-US companies that trade in US financial markets. ADRs are made available to US markets by major commercial banks that provide depositary services. These banks purchase a bulk lot of shares from foreign companies, bundle the shares into groups, and re-issue them on either a US exchange or over-the-counter. These shares are denominated in US dollars and dividends are paid to the domestic investors in US dollars. For example, investors purchasing Toyota "stock" on the NYSE are actually purchasing ADRs that represent ownership of the shares. But to an investor, it doesn't make a difference.

> ***Knopman Note:*** **It is possible for an ADR holder to receive a lower dividend than was actually declared by the foreign company because the foreign government might have withheld a percentage of the dividend for taxes.**

The individual shares of a foreign corporation represented by an ADR are called **American depositary shares (ADS)**.

1.4.1.1 Risks of Owning ADRs

Although ADRs offer hassle-free opportunity for foreign ownership, they present additional risks compared to domestic investments.

- **Political risk**—Is the government in the home country of the ADR stable?
- **Currency risk**—Is the currency of the home country of the ADR stable? If a country's currency is devalued, it will impact the value of ADRs even if the company had been performing well. It will also impact the value of the dividend, which is converted from the issuer's home currency into US dollars.
- **Inflationary risk**—Is inflation a substantial risk in the home country of the ADR? If so, it can cause devaluation of the country's currency, which will impact the ADR's value.

> ***Knopman Note:*** **Because ADRs are common stock, they do not have call risk, meaning the company does not have the right to redeem the shares from the investor. However, they do have currency and political risk.**

Progress Check

1. Equity securities that allow existing shareholders to buy into an offering of additional shares, to maintain proportionate ownership, are called:

   A. American depositary receipts (ADRs).
   B. warrants.
   C. rights.
   D. preferred stock.

2. Which type of equity security pays a regular fixed dividend?

   A. Common stock
   B. Preferred stock
   C. Warrants
   D. Rights

3. Almost all common stock is currently issued in a form that allows broker-dealers to keep records of ownership on their books, rather than issue paper certificates. This form is called:

   A. book-entry.
   B. ledger-entry.
   C. margin-issue.
   D. broker call.

4. When can a share of common stock accurately be described as "issued but not outstanding"?

   A. When it is held by an institution
   B. When it is subject to a regulatory trading restriction
   C. When the issuing company has been delisted from an exchange
   D. When it is not owned by investors

5. Which types of common stock can be expected to perform best, relative to the stock market as a whole, during a bear market?

   A. Blue chip and income
   B. Income and defensive
   C. Cyclical and growth
   D. Blue chip and growth

6. Owning a share of common stock gives an investor voting rights. For what specific purpose does the investor have a right to vote?

   A. Choosing a CEO
   B. Choosing the board of directors
   C. Approving strategic direction
   D. Declaring dividends

7. Which type of risk cannot be mitigated by spreading an investment among a variety of common stocks?

   A. Industry risk
   B. Systematic risk
   C. Management risk
   D. Business failure risk

8. The stock of Acme Company is quoted on the OTC Bulletin Board for a price of 45 cents per share. This is considered:

   A. a small-cap stock.
   B. an income stock.
   C. an inactive stock.
   D. a penny stock.

Progress Check—Solutions

1. (**C**) A rights offering gives existing common shareholders the option to purchase sufficient shares of a new equity offering so that their positions will not be diluted by the offering. By taking advantage of the rights offering, they can maintain the same proportionate (percentage) ownership.
2. (**B**) Preferred stock is a type of equity security that has investment characteristics and investor objectives that are more comparable to bonds. The preferred issue pays a regular fixed dividend that investors can use for current income.
3. (**A**) By eliminating paper stock certificates, book-entry form has enabled more efficient markets and more rapid trading. Each broker-dealer holds shares of stock in its own name and maintains records of individual account ownership. This form is also called street name.
4. (**D**) A share of common stock is issued when it is authorized by the company and sold to the public. It is outstanding when it is actually in the hands of investors. Public companies may hold treasury stock for a time before issuing it, in which case it is not outstanding. Also, if companies buy back their stock from the public, it is no longer outstanding because if investors don't actually hold the stock, it isn't outstanding.
5. (**B**) Income stocks pay high dividends, which can continue even when stock prices are weak. Defensive stocks are resistant to changes in economic cycles. They tend to hold value better than many other stocks during down markets.
6. (**B**) Owners of common stock have the right to exercise control by electing a board of directors and, in some cases, voting on company policies that have been put to a proxy vote by the board of directors. The board chooses the CEO and is responsible for approving strategic direction and declaring dividends.
7. (**B**) Systematic risk, also called market risk, reflects the fact that the performance of an individual stock is usually heavily impacted by the direction of the market as a whole. Virtually all stocks have systematic risk exposure and can be expected to decline in a broad market selloff.
8. (**D**) Penny stocks are unlisted and trade for less than $5 per share. They are found in the over-the-counter market and quoted on the OTC Bulletin Board or OTC Markets. They are considered highly risky due to their low share price and volatility.

1.5 Preferred Stock

Preferred stock is another type of equity security that is issued by corporations. Although it is categorized as an equity security, it features characteristics of both stocks and bonds. Once issued, shares of preferred can be listed and trade on stock exchanges, or over-the-counter.

1.5.1 Features of Preferred Stock

Preferred stock differs from common in three particular ways:

- Voting rights
- Liquidation priority
- Dividend payments

1.5.1.1 Voting Rights

Unlike common stockholders, preferred stockholders usually have no voting privileges. However, sometimes corporations will permit preferred shareholders to vote in certain circumstances, such as the issuance of a new class of preferred stock or in the event of a hostile takeover attempt.

> ***Knopman Note:*** **Unlike common stockholders, holders of preferred stock typically do not have voting rights.**

1.5.1.2 Liquidation Priority

Preferred shareholders have priority over common stockholders in the event of a corporate liquidation. All creditors, including bondholders, have precedence over preferred, but if assets remain, preferred shareholders will receive at least the par value of their shares and possibly **dividends in arrears**—missed dividend payments—before common shareholders receive anything.

1.5.1.3 Dividend Payments

The biggest difference between preferred stock and common stock is that preferred stock almost always pays a quarterly dividend. As with common, there are no guarantees of dividend payment, but companies are reluctant to skip a preferred stock dividend, and investors can generally count on a preferred stock dividend being paid.

Par value is more significant to preferred stockholders than to common stockholders because the dividend rate is expressed as a percentage of par value.

Example

Assume ABC Corp has issued a 6% preferred with a par value of $100. Even if the stock is currently trading for $110, the annual dividend will remain $6 (6% of $100) or $1.50 per quarter.

Additionally, because of this fixed dividend, preferred stock trades like a debt security, meaning that it is susceptible to changing interest rates. For example, when interest rates increase, a company must now issue preferred stock that pays a higher dividend to compete with higher-yielding debt securities. Therefore, outstanding preferred stock that pays a lower dividend will lose value since it does not provide a competitive income stream.

Furthermore, unlike common stock, which has the potential for unlimited upside (the stock price keeps going up), preferred stock typically has much less price movement and volatility. This is because the return on preferred stock is tied primarily to the dividend payments, which caps the investor's upside appreciation (as well as downside risk).

Pop Quiz 2 *(Chapter 1)*

Match each of the following terms with the appropriate description.

A. ADR
B. Right
C. Warrant
D. Preferred stock

______ A security that lets investors purchase a company's common stock at a fixed price for a set period of time

______ A security that facilitates trading of foreign common stocks on US exchanges

______ An equity security that pays a regular, fixed dividend and has liquidation priority over common stock

______ A security that helps investors maintain proportionate ownership in a company by buying more shares

1.5.2 Types of Preferred Stock

Although there are many varieties of preferred securities, the basic types of preferred stock are described here.

Cumulative preferred stock includes a provision that gives shareholders the right to receive dividends in arrears. In other words, if a dividend is skipped or cancelled, the cumulative preferred shareholder must receive dividends for both the current period and any previously skipped dividends before a dividend payment can be made to common stockholders. Preferred stock that does not have this feature is **straight preferred**. Straight preferred stock does not offer any of the features described in this section.

> ***Knopman Note:*** **Cumulative preferred stock is a benefit for investors, as it entitles them to receive missed dividend payments.**

Participating preferred stock allows the holder to receive an extra dividend distribution. This is generally conditional; for example, it may be triggered if the dividend payable to common stock exceeds a certain amount. Or, it could pay a higher dividend based on company earnings.

Convertible preferred stock gives the holder the option to exchange the preferred shares for shares of the issuer's common stock according to a defined ratio that is based on par value. For example, if a preferred share has par value of $100 and can be exchanged to common shares at a price of $20 per share, the conversion ratio is five. This ratio is fixed and is based on the preferred stock's par value, regardless of its market price. Shares of convertible preferred stock offer investors the upside potential of common stock. Therefore, convertible preferred generally pays a lower dividend than nonconvertible preferred from the same issuer.

Callable preferred stock can be repurchased by the issuing company at its discretion. If the shares are called, the investor is required to sell them back to the issuer. The company may choose to do this when it can acquire investment capital at a lower rate. For example, if interest rates fall, a company may be able to issue new stock with a lower dividend.

Due to this **call risk**, callable preferred stock generally pays a higher dividend than non-callable preferred stock from the same issuer.

Adjustable-rate preferred stock pays dividends that are determined based on an underlying benchmark—usually the US Treasury bill. Because the dividends of adjustable-rate preferred stock always vary based on market conditions, the share price tends to remain stable.

Knopman Note: **Preferred shares that provide an advantage to the investor (e.g., cumulative, convertible, or participating preferred) will pay lower dividends than preferred shares that provide an advantage to the issuer (e.g., callable preferred). The investor is essentially trading away the higher dividend payment for the beneficial features and vice versa.**

1.5.3 Preferred Stock Versus Common Stock

Although both common and preferred stock represent ownership in a company, some key distinguishing factors are illustrated in the table below.

	Common Stock	Preferred Stock
Voting Rights	Yes	No
Liquidation Priority	Paid last	Paid before common stock
Dividend	Dividends may or may not be paid regularly based on the company's profits	Dividends are typically paid, as a percentage of par value
Maximum Upside	Unlimited (if stock price keeps going up)	Limited (return primarily tied to dividend; investors do not have the same appreciation potential)
Risk	Riskier than preferred, but with greater growth potential	Less risky than common, but with less growth potential

> ***Knopman Note:* Because preferred stock pays a fixed dividend, it has a lower potential for appreciation and capital gains compared to common stock.**

Pop Quiz 3 *(Chapter 1)*

For each feature of preferred stock listed in the left column below, choose the best answer shown in the other columns.

Feature	Answers		
Voting Rights	No voting privileges	Vote for board of directors only	Vote in all important corporate matters
Liquidation Priority	The lowest of any corporate security	Above common stock but below bonds	The highest of any corporate security
Dividend Payments	Not fixed or guaranteed	Fixed but not guaranteed	Fluctuating and not guaranteed
Right of Cumulative Preferred	No special right conveyed	Right to convert into common shares	Right to receive dividends in arrears
Right of Participating Preferred	Right to participate in annual meetings	Right to an extra conditional dividend	Right to a percentage of profits in company's common stock
Feature of Callable Preferred	Shares can be retired at company's option	Shares can be converted to common stock at company's option	Shares can be converted to common stock at shareholder's option
Maximum Upside	More limited than common stock	About the same as common stock	Better than common stock
Risk Exposure	Riskier than common stock	About as risky as common stock	Less risky than common stock

1.6 Negotiability of Equity Securities

A **negotiable security** is one that can be freely transferred, assigned, or delivered to another entity. Put differently, negotiable securities can be easily traded to another investor. Listed equity securities are generally negotiable.

1.6.1 Registrar and Transfer Agent

The **registrar** maintains records of ownership of securities by matching each share of stock against an ownership record and ensuring there is no unauthorized issuance. For example, a company cannot issue more shares than allowed by its corporate charter.

The **transfer agent** records changes of ownership in securities and may maintain records of ownership. When securities are transferred or sold, the record of ownership is changed on the books of the issuer, as maintained by the transfer agent.

> ***Knopman Note:* The transfer agent is responsible for ensuring that investors receive the appropriate shares in a corporate event such as a stock split or stock dividend.**

Generally, the same institution will act as both registrar and transfer agent on an issuance.

1.6.2 Stock Endorsements

To be negotiable, physical stock certificates generally must be endorsed with the owner's signature on the back—exactly as the owner's name appears on the front. Once endorsed, stock certificates can be assigned or sold to another person. The registrar or transfer agent is authorized to modify the issuer's records to reflect the change.

Endorsing ownership of a stock certificate to a brokerage firm transfers ownership into **street name**, meaning the securities are now registered in the name of the broker-dealer. In street name ownership, the broker-dealer becomes the named, or **nominal owner** of the securities, but the customer is the **beneficial owner**, retaining all rights of ownership (e.g., voting rights and dividends). Street name allows for trading efficiency. Since the securities are held in the firm's name, customers can easily sell the securities without the burden of having to sign or endorse certificates.

1.7 Dividend Procedures

As mentioned previously, dividends are distributions of a company's profits to shareholders. This section will explore procedures related to the dividend payment process.

The **declaration date** is the date on which the board of directors declares that a dividend will be paid. At this time, the board specifies two other important dates: the record date and the payable date. The **record date** is the date upon which a stockholder must be a registered owner of the stock—a holder of record—to receive the dividend. The **payable date** is the date payment is actually made, generally about three weeks after the record date.

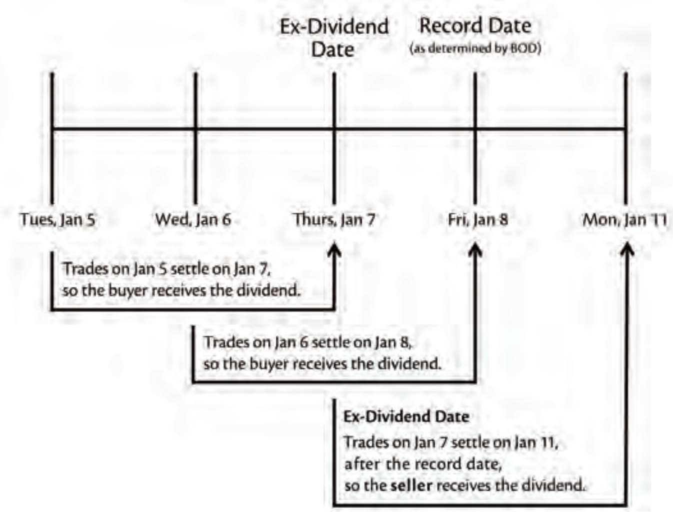
Because issuing companies are required to notify the exchange on which the stock trades at least 10 business days prior to the record date for an upcoming dividend, the declaration date must be at least 10 business days prior to the record date.

Another important date in the dividend payment process is the **ex-dividend date**. The ex-dividend date governs who, upon the execution of a trade, will receive a dividend. The ex-dividend date is established by the exchange, not the company's board of directors. This date is determined by the practice of **settlement**, which is when legal title passes from seller to buyer and the stock trade is complete. Most equity trades settle **regular way** T + 2, meaning two business days after the trade date.

Example

If an investor purchases Apple stock on Monday, the trade will settle on Wednesday, two business days after the trade date. The settlement will be at the price of execution on Monday, but legal title will actually change hands on Wednesday.

Because it takes two business days to settle a trade, the ex-dividend date is one business day prior to the record date. If a trade occurs before the ex-dividend date, the buyer receives the dividend because the trade will settle by the record date, and the buyer will be the holder of record. However, if the trade takes place on or after the ex-dividend date, the seller receives the dividend because settlement will take place after the record date. Described differently, in order for an investor to receive a dividend, a trade must settle on or prior to the record date. The graphic below illustrates this process.



Example

If the record date is Friday, the stock goes ex-dividend on Thursday. Therefore, an individual buying the stock on Wednesday will receive the dividend (because the trade settles on Friday—the record date). However, an individual buying the stock on Thursday will not because the trade settles after the record date—on the following Monday.

The recipient of the dividend is summarized here:

Date of Transaction	Recipient of Dividend
Before ex-dividend date	Buyer
On or after ex-dividend date	Seller

***Knopman Note:* For a regular way trade (which settles T + 2), the ex-date is the business day before the record date.**

***Knopman Note:* In the payment of a cash dividend for a regular way transaction, the four relevant dates occur in the following order:**

- **Declaration date**
- **Ex-dividend date**
- **Record date**
- **Payable date**

A trick to remember the order is "DERP."

1.7.1 Cash Settlement

While most trades settle regular way (T + 2), some settle the same day as the trade date. **Cash settlement** entails same-day payment, same-day settlement. If an investor buys stock in a cash-settled transaction on the record date, because the trade settles that same day, the investor will receive the dividend. On the other hand, if an investor buys in a cash-settled transaction on the business day after the record date, the trade will still settle that same day, which is now after the record date, and too late to receive the dividend. Therefore, the ex-dividend date for cash settlement is the business day after the record date.

The majority of transactions in equity securities settle regular way, rather than via cash settlement.

1.7.2 Ex-Dividend Date and Price

On the morning of the ex-dividend date, the price of the stock drops by the amount of the dividend. This happens because a buyer will no longer receive the dividend upon purchasing the shares. Put differently, if an investor buys the stock on the ex-date, she will not receive the dividend, and therefore, she does not have to pay for it.

Example

Verizon's stock is priced at $50 per share. Its board of directors declares a $0.60 dividend per share. On the ex-dividend date, the price of Verizon will decrease by $0.60, to $49.40.

Additionally, any customer buy and sell orders that had been entered at or below the market are also reduced by the dividend on the morning of the ex-dividend date. These orders include **buy limit**, **sell stop**, and **sell stop limit** orders—all of which will be discussed in detail in later chapters.

Pop Quiz 4 *(Chapter 1)*

1. ABC Corp has declared a dividend of $1.25 per share payable to shareholders of record on Thursday, January 28. What is the ex-dividend date?

   A. January 25
   B. January 26
   C. January 27
   D. January 28

2. What events will happen on the morning of the ex-dividend date?

   I. The dividend will be paid to shareholders of record.
   II. Shareholders must confirm that they are shareholders of record.
   III. The stock price will drop by $1.25.
   IV. Certain types of orders will automatically be reduced by $1.25.

   A. I and II only
   B. I and III only
   C. II and III
   D. III and IV

1.7.3 Forms of Dividend Payment

Cash dividends, the most common type of dividend, are dividends that are paid in cash. **Stock dividends** are paid in extra shares of stock instead of cash. Stock dividends are made pro rata to all shareholders; therefore, each shareholder's proportionate stake in the company remains the same.

Example

ABC Co. has 1,000 shares of stock outstanding. Joe owns 15 shares of ABC, equating to 1.5% of the company, calculated as 15/1,000. If ABC subsequently declares a 20% dividend, each investor will receive 20% more shares. Therefore, Joe will now receive three more shares (20% × 15 Shares) and will own a total of 18 shares. ABC will now have 20% more outstanding shares—for a total of 1,200. Joe's ownership remains 1.5%: 18 Shares/1,200 Shares.

Sometimes, however, a company will distribute a stock of a different company as a dividend, such as the stock of a subsidiary. In rare, and typically dire, circumstances, a company could even pay a dividend in the form of company product.

For the issuing company, the main advantage of a stock dividend is that its earnings can be reinvested for growth and development. The main advantage for the stockholder is that no taxes are paid on the stock dividend until the shares are sold. This contrasts with cash dividends, which are subject to taxation upon receipt by the investor.

1.7.4 Stock Splits and Dividends

A **stock split** is an adjustment in an issuer's outstanding share count. After a stock split, each investor's ownership position remains unchanged, but the number of shares and the stock price are adjusted.

Knopman Note: **In a stock split, the overall value of the investor's position in the company remains unchanged.**

A stock split in which the shareholder receives additional shares is called a **forward split**. **Forward stock splits** generally occur when a company believes its share price is too high to interest potential buyers. The perception is that if a stock exceeds a certain price, people will start looking for cheaper stocks. The issuing company counters this perception by splitting each share into multiple, lower-priced shares. For example, if a stock is trading at $100 a share, after a 2-for-1 split, an investor will have two shares worth $50 each. Note that there is no change in the total value of the position. Both before and after the split, the value of the investor's position is $100.

Technically, a forward stock split and a stock dividend are the same type of event. The shareholder receives additional shares, with each share proportionately worth a lesser price. The total value of shares remains about the same. For example, a 2-for-1 split is equal to a 100% stock dividend, and a 10% stock dividend is the same as an 11-for-10 stock split.

Example

ABC stock splits 2-for-1. Instead of holding 100 shares at $30, the investor has 200 shares at $15. The total value of the position remains $3,000 (200 × $15).

Example

ABC declares a 20% stock dividend, meaning that an investor will receive one new share for every five shares held. Instead of holding 100 shares at $30, the investor now has 120 shares at $25. The total value of the position remains $3,000 (120 × $25).

Knopman Note: **To calculate the new number of shares after a split, multiply the shares by the first number of the split and divide by the second. The new price can be calculated the opposite way—divide by the first number and multiply by the second.**

Example

An investor owns 200 shares of stock, currently trading at $24 per share. The company then executes a 5-for-4 split. After the split, the investor will own 250 shares, calculated as 200 × 5/4. The new stock price is $19.20, calculated as $24/5 × 4. Notice the value of the position is $4,800 both before and after the split.

Knopman Note: **Stock dividends are not taxed when received by a shareholder. However, the cost basis of the investor's shares is adjusted. In the example above, the investor's cost basis is adjusted downward from the original pre-split stock price of $24 to the post-split price of $19.20. The adjusted cost basis is relevant for determining whether an investor recognizes a capital gain or capital loss when the investor eventually sells their shares.**

A split in which the shareholder's share count is reduced is called a **reverse split**. A reverse split increases the price of the stock and converts each position into proportionately fewer shares. For example, in a 1-for-5 reverse split, five $4 shares become one $20 share. Again, there is no change in value.

Reverse splits are often deployed by issuers to avoid falling below the minimum price required for exchange listing (e.g., a minimum stock price of $1 per share is required for continued exchange trading). For example, if a stock is trading at $0.10 per share, the issuer might execute a 1-for-50 reverse split to inflate the price of the stock to $5 per share. Unfortunately for the issuer and its shareholders, it is not uncommon for the stock to return to the previous low price shortly after such a split.

Knopman Note: **A reverse stock split may increase the marketability of a stock, as the stock will no longer carry the perception of being a low-priced stock.**

Anytime there is a reverse split, all open orders to trade the stock are cancelled.

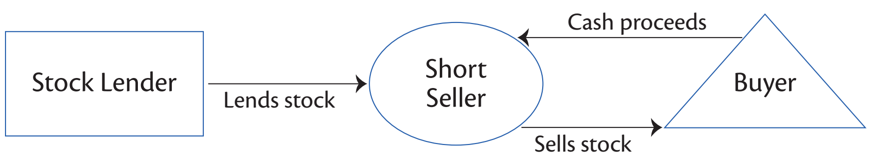
Pop Quiz 5 *(Chapter 1)*

Joe owns 100 shares of stock that is selling for $40 per share at the time when the events below occur. Write in the boxes the number of shares he will own and the price per share immediately after these events.

Event	# of Shares He Will Own	Price per Share
Stock splits 2-for-1		
Stock dividend of 20% is declared		
Stock reverse splits 1-for-4		
Stock splits 3-for-2		

1.8 Short Sales

While the focus of this chapter has thus far been purchasing shares and owning a piece of the company, an alternative equity strategy that investors might use is **selling stock short** or **short sales**. In a short sale, an investor sells borrowed shares in the market, hoping to replace or "cover" the position at a lower price than the shares initially sold for. The difference between what the investor sells for and what the investor pays to buy back the shares and return them to the lender is the profit or loss.



Why do investors engage in short sales? The most basic answer is that they wish to speculate that the price of securities will fall.

Example

Henry enters an order to **sell short** 300 shares of Citrix at a price of $67, because he believes they are overvalued and due for a price decline. These shares are listed on his brokerage firm's easy-to-borrow list, so he knows he can borrow them from the firm. When he sells the shares, the sale proceeds of $20,100 (300 × $67) go into his account. Two months later, the shares have fallen to $61.50. Henry enters an order to **buy to cover** 300 shares of Citrix at that price, paying $18,450. In two months, he earns a profit of $1,650 ($20,100 – $18,450).

Had the shares appreciated in value, Henry would have faced a loss. Imagine that after two months, Citrix had appreciated to a price of $75. Henry would have sold at $67 and bought back at $75, resulting in a loss of $8 per share ($2,400 overall). Put another way, regardless of how high the price of Citrix goes, Henry would have to purchase the shares in the market to return them to the lender.

Knopman Note: **Because the price of the stock can rise indefinitely, short-sellers have unlimited risk potential.**

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 1)*

(B) By exercising his pre-emptive rights, Lance can maintain his proportionate ownership of the company. In this case, he will be given rights to buy 100 new shares. The math is that the company is issuing 10% more stock than it now has authorized and outstanding, so Lance will have the right to increase his own stake by 10% (10% of 1,000 = 100 Shares).

(A) The exercise price of rights is always below the current market price, at the time rights are issued.

Pop Quiz 2 *(Chapter 1)*

__C__ A security that lets investors purchase a company's common stock at a fixed price for a set period of time

__A__ A security that facilitates trading of foreign common stocks on US exchanges

__D__ An equity security that pays a regular, fixed dividend and has liquidation priority over common stock

__B__ A security that helps investors maintain proportionate ownership in a company by buying more shares

Pop Quiz 3 *(Chapter 1)*

Feature	Answers		
Voting Rights	**No voting privileges**	Vote for board of directors only	Vote in all important corporate matters
Liquidation Priority	The lowest of any corporate security	**Above common stock but below bonds**	The highest of any corporate security
Dividend Payments	Not fixed or guaranteed	**Fixed but not guaranteed**	Fluctuating and not guaranteed
Right of Cumulative Preferred	No special right conveyed	Right to convert into common shares	**Right to receive dividends in arrears**
Right of Participating Preferred	Right to participate in annual meetings	**Right to an extra conditional dividend**	Right to a percentage of profits in company's common stock
Feature of Callable Preferred	**Shares can be retired at company's option**	Shares can be converted to common stock at company's option	Shares can be converted to common stock at shareholder's option
Maximum Upside	**More limited than common stock**	About the same as common stock	Better than common stock
Risk Exposure	Riskier than common stock	About as risky as common stock	**Less risky than common stock**

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 1)*

1. **(C)** January 27. The ex-dividend date is one business day before the dividend record date.

2. **(D)** Orders entered at or below the market will automatically be reduced by the amount of the dividend. These include buy limit, sell stop, and sell stop limit.

Pop Quiz 5 *(Chapter 1)*

Event	# of Shares He Will Own	Price per Share
Stock splits 2-for-1	200	$20
Stock dividend of 20% is declared	120	$33.33
Stock reverse splits 1-for-4	25	$160
Stock splits 3-for-2	150	$26.67

Explanation: Here is a simple way to solve these problems. Start with the idea that he owns the same stock dollar value before and after each event. It is $4,000. (Splits, reverse splits, and stock dividends don't add or subtract value.) Then, figure out how many shares he will own after each event. Divide $4,000 by that number of shares. Check your math by making sure that Number of Shares × Price per Share = Original Amount, $4,000 in this case.

Unit Exam

1. An owner of common stock wishes to cast a vote for certain candidates for the board of directors. However, she is not able to attend the meeting to vote in person. Can she still vote?

   A. No, because all votes must be cast in person
   B. She may delegate her vote to someone who attends the meeting in person.
   C. She may request the SEC's permission to cast an absentee ballot.
   D. She may cast a proxy vote by mail or online.

2. In regard to the rights of common stock shareholders, what does the term **street name** mean?

   A. Shareholders do not have the right to cast proxy votes.
   B. Shareholders have the right to participate in statutory voting but not cumulative voting.
   C. Shares may be sold or margined without the shareholder's permission.
   D. Shares are held in the broker-dealer's name, but the shareholder retains all rights of ownership.

3. In the event of a company's bankruptcy or liquidation, what rights do common stock shareholders have to receive any remaining corporate assets?

   A. They are the lowest priority of any security holder.
   B. They are a higher priority than all security holders other than senior debt holders.
   C. They are a higher priority than preferred stockholders but a lower priority than owners of debt securities.
   D. They are the highest priority of any security holder.

4. A retired investor who needs current income buys a common stock that is paying a 4% dividend. The investor should understand that:

   A. dividends are only paid once per year.
   B. dividends are not guaranteed.
   C. dividends can go up but not down.
   D. dividends generally are not taxable by the federal government.

5. Common shareholders of ABC Company have the right to avoid having their proportionate interest in company stock diluted when the company issues new stock to the public. This is called:

   A. maintenance rights.
   B. priority rights.
   C. pre-emptive rights.
   D. preference rights.

6. To whom may an investor sell rights or warrants?

   A. They are not resellable and must be held to maturity.
   B. They may only be sold back to the issuing company.
   C. They may only be sold to other shareholders of record of the same company.
   D. They may be sold to anyone.

7. An investor buys 100 shares of Company ABC stock at $20 per share. It has par value of $2 per share. What is the maximum amount the investor can lose on this investment?

   A. $200
   B. $1,000
   C. $2,000
   D. Unlimited

Unit Exam (Continued)

8. A preferred stock is trading at $20 per share. Its par value is $5 per share. Its dividend rate is 8% per year. What amount of dividend income should an investor expect to earn in a year?

   A. 40 cents
   B. 80 cents
   C. $1.20
   D. Zero, because preferred stock dividends aren't predictable

9. Which type of preferred stock allows investors to participate in any potential upside of the same company's common stock?

   A. Participating preferred
   B. Cumulative preferred
   C. Callable preferred
   D. Convertible preferred

10. What term signifies that a share of common can be freely transferred, assigned, or delivered to another entity?

   A. Fungible
   B. Negotiable
   C. Portable
   D. Endorsable

11. Which entity records ownership changes on the books of the issuer whenever shares are transferred or sold?

   A. Transfer agent
   B. Clearing agent
   C. Treasurer
   D. Registrar

12. ABC Company is paying a quarterly dividend to common stockholders. On which date must an investor legally own shares, on the books of the issuer, to be entitled to receive the dividend?

   A. Declaration date
   B. Record date
   C. Payable date
   D. Ex-dividend date

13. The record date for a dividend payment declared by XYZ Co. is March 8, a Wednesday. The stock trades regular way. What is the ex-dividend date?

   A. March 6
   B. March 7
   C. March 9
   D. March 10

14. What is the most common reason for selling shares of common stock short?

   A. To profit from a rise in the share price
   B. To profit from a decline in the share price
   C. To participate in a declared dividend
   D. To increase the amount of dividends received

15. What main advantage is offered by American depositary receipts (ADRs)?

   A. Stable principal
   B. Ability to buy foreign securities in the US
   C. Leverage
   D. Ability to buy OTC stocks on US exchanges

16. The risk that an investor will own a tech stock that goes bankrupt when almost all other tech stocks are appreciating is called:

   A. beta.
   B. systematic risk.
   C. non-systematic risk.
   D. bad luck.

Unit Exam—Solutions

1. (**D**) Proxies are made available to help common stock shareholders exercise their right to elect the board of directors. Think of a proxy as an absentee ballot. It is not necessary to delegate another person to cast the proxy vote because proxies are counted directly, the same as in-person votes. Many companies allow proxies to be cast online, in addition to by mail.
2. (**D**) Street name registration means that shares are held in the name of the broker-dealer at which the customer holds their account. This facilitates trading of the shares. However, the shareholder does not lose any rights of ownership, such as voting rights.
3. (**A**) Common stockholders stand behind all other holders of a company's securities in the line to receive any remaining assets. In many cases, this means common stockholders will be completely wiped out by a bankruptcy or liquidation. It is perhaps the most significant risk of owning common stock, compared to owning other forms of corporate securities.
4. (**B**) Common stock dividends are generally declared by the board of directors and paid quarterly. However, they are not guaranteed and can decline or be totally eliminated if the company falls on hard times.
5. (**C**) Through a rights offering, companies give existing shareholders the right to acquire newly issued shares proportionate to their current holdings, so as to maintain their proportionate (percentage) interest. This is called the pre-emptive right or the subscription right. Each shareholder has the option of exercising the right.
6. (**D**) Rights and warrants are equity securities that trade in the secondary market, independent from the underlying stock. They can generally be sold at any time to anyone.
7. (**C**) Regardless of how poorly a company performs, a common stock investor has limited liability and can only lose the full amount invested. Common stock investors can't be held liable for a company's debts or legal obligations, beyond the amount they have personally invested.
8. (**A**) An advantage of owning preferred stock is the predictable dividend, which is always expressed as a percentage of par value. In this case, an 8% annual dividend calculated on a $5 par value produces 40 cents' worth of dividend income per share per year.
9. (**D**) Convertible preferred gives investors the option to exchange the preferred stock into shares of the issuer's common stock based on a defined ratio. Therefore, convertible preferred shares can capture the upside potential of the underlying common stock. The price of these preferred issues also fluctuates with the value of the common stock.
10. (**B**) A negotiable security is one that can be freely transferred, assigned, or delivered. For example, most listed equities are negotiable. Note that not all securities are negotiable.

Unit Exam—Solutions (Continued)

11. (**A**) The transfer agent records changes of ownership on the books of the issuer and maintains records of investors' share ownership.

12. (**B**) The dividend is announced by the board of directors on the declaration date. It is then paid on the payable date to shareholders of record on the record date. New investors must buy the stock before the ex-dividend date to be shareholders of record on the record date. Remember that the books are locked in, for dividend-payment purposes, on the record date.

13. (**B**) The ex-dividend date is normally one day before the record date. This reflects the fact that most stocks trade regular way, T + 2—i.e., ownership changes two business days after the trade date. To be a shareholder of record on the record date, an investor must buy at least two days prior, on or before March 6. March 7 is the ex-dividend date, the first day on which the stock trades without a dividend right. Remember: Buy on ex-div date, too late.

14. (**B**) Investors sell shares of a stock short mainly to profit from a decline in the share price, or to protect against an adverse event affecting the stock or company.

15. (**B**) ADRs represent units of ownership in foreign securities, but they are traded in the US, in US dollars. They have all the benefits of buying the foreign stock directly, without the inconvenience of having to understand foreign markets or convert currencies.

16. (**C**) Non-systematic risk, or business risk, is encountered when buying individual stocks. It's the exposure to negative events that impact a specific company or stock, not the market or sector as a whole. This type of risk can be mitigated by diversifying a portfolio.

2. Debt Securities

As an alternative to issuing stock to raise capital, issuers can also sell **bonds**. Unlike stock, bonds and fixed-income securities represent a loan to a borrower, not equity. This chapter will discuss the general characteristics of debt securities, the different yields used to value bonds, and risks associated with bond ownership.

Chapter Goals

- Understand the basic characteristics of debt securities.
- Describe the relationship between interest rates and bond prices.
- Be able to make conclusions about whether bonds are trading at a premium or at a discount based on the relationship between the different yields.
- Define the risks associated with bonds.
- Understand accrued interest.

Key Terms

- **Bond**—A security issued by a corporation or governmental entity to raise capital, representing a loan to a borrower in return for payment of interest and principal to the lender
- **Refunding**—The process by which an issuer refinances, selling cheaper bonds to replace callable outstanding bonds in an environment in which interest rates are declining
- **Yield to maturity (YTM)**—The most widely quoted rate of return on a bond, accounting for not only the interest payments received by the investor, but also the difference between their purchase price and the amount of principal received at maturity
- **Interest rate risk**—The risk that as interest rates increase, bond prices will decrease
- **Accrued interest**—The interest that is paid by the buyer of a bond to the seller when a bond is traded between coupon payment dates

2.1 General Characteristics of Bonds

Bond issuers engage in **debt financing**, as they are borrowing money from investors. When buying bonds, investors are promised a return of their money (the principal), along with interest. As **creditors** of the issuer, bondholders have a higher claim on assets than shareholders in the event of a bankruptcy or liquidation. Bonds and other securities that pay a regular income stream to investors are referred to as **fixed-income securities**.

Bonds are issued by corporations, governments, and municipalities. Regardless of who the issuer is, all bonds share a number of characteristics.

2.1.1 Forms of Ownership

Until 1983, bonds were commonly issued in **bearer form**. **Bearer bonds** included physical certificates and interest coupons. For interest on the bond to be paid, a **coupon** had to be clipped and presented to a paying agent of the issuer—typically any bank. The issuer kept no record of ownership. Payment of interest and ultimately principal was made to whomever had possession of the bond and coupons. A picture of a bearer bond with attached coupons is below.

Although these bonds are no longer issued, a small number still trade in the secondary market between investors. When bearer bonds are sold, the holder must make physical delivery of the bond certificate.

Bonds today are issued in **registered form** instead of bearer form. This means that the name of the owner(s) of the bond is recorded with the issuer or a transfer agent. With **fully registered bonds**, as they are called, there is no need for the bondholder to clip coupons to receive interest; the interest is automatically sent to the owner.

A fully registered bond may include an engraved physical certificate, but there are no coupons on the certificate.

Now, **book-entry form** is the most common method of tracking ownership. In this format, the investor's ownership is recorded electronically by a central depository, replacing physical transfer. When a change of ownership occurs, the depository changes its records and provides a receipt or confirmation for the transaction. The difference between book-entry and fully registered bonds is that for book-entry, ownership is recorded by a central depository rather than by the issuer.

Registered and **book-entry bonds** are both convenient and safe for bondholders. They are protected from loss or theft, and bondholders receive automatic payment of principal and interest.

2.1.2 Par Value

Par value, also known as **face value** or **principal**, is the amount of money a bondholder will receive at maturity. Bonds normally have a par value of $1,000. A newly issued bond usually sells at a price close to par.

When issuers sell bonds, they are usually raising thousands, millions, or billions of dollars. For example, if an issuer is selling $10 million in bonds, this means the par value of all the bonds being sold is an aggregate of $10 million.

> ***Knopman Note:*** **For exam purposes, always assume a par value of $1,000 for bonds unless told otherwise in the question.**

Pop Quiz 1 *(Chapter 2)*

Match each of the following terms with the appropriate description.

A. Bond
B. Par value
C. Book-entry
D. Coupon

_____ Most common method of tracking bond ownership
_____ Amount investor receives at maturity
_____ Periodic bond interest paid
_____ Loan made by an investor to an entity

Answers to chapter 2 pop quizzes begin on page 65

2.1.3 Bond Quotation

Par value is not the same as the market price of the bond. **Market price**, or the price of the bond paid by investors in secondary trading, fluctuates in response to a number of factors, primarily changing interest rates.

A **bond quotation** states the price at which a bond is trading. Bond quotes are typically expressed as a percentage of their par value, with the percentage converted to a point scale. A bond that is trading at par value is said to be trading at 100, which is 100% of its par value, or $1,000.

- A bond quote above 100 means the bond is trading at a premium to par. For example, a bond quoted at 105 is trading at 105% of par, or $1,050.

- A bond quote below 100 means the bond is trading at a discount to par. For example, a bond quoted at 95 is trading at 95% of par, or $950.

> ***Knopman Note:*** **For bonds with par value of $1,000, when converting the quote to a price, simply multiply by 10. For example, a bond quoted at 97 is worth $970, whereas a bond quoted at 112 is worth $1,120.**

2.1.4 Coupon

The **coupon** is the payment bondholders receive as interest. Essentially, it is the investor's compensation for lending money to the issuer.

The term "coupon" is carried over from the days when physical coupons were attached to bond certificates. As discussed above, interest payments are now typically mailed to bondholders or paid into a brokerage account.

The coupon rate of interest, also referred to as the **nominal yield (NY)**, is expressed as a percentage of par value. Most bonds pay interest to investors every six months in two semiannual installments. For example, a bond that pays a coupon of 10% pays 10% of $1,000 (par value) or $100 of interest per year. An investor who owns the bond receives $50 semiannually, as well as at maturity.

Because interest is paid every six months, it can be paid:

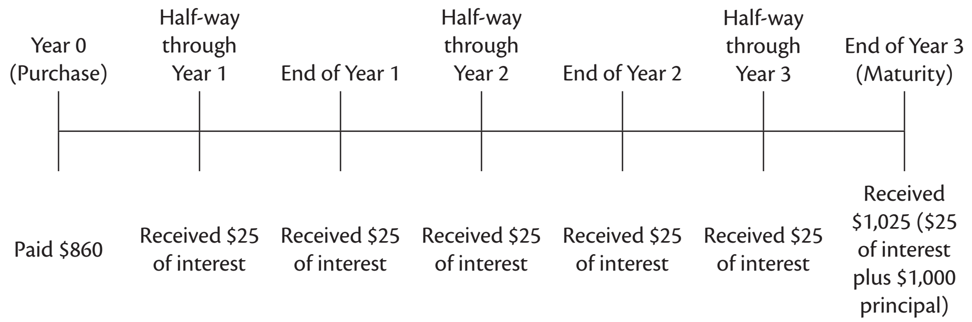
- January and July (J&J)
- February and August (F&A)
- March and September (M&S)
- April and October (A&O)
- May and November (M&N)
- June and December (J&D)

The coupon is typically paid on the 1st of the month. However, if the number 15 is listed after the months, interest is paid on the 15th of the month instead of on the 1st. For example, "J&J 15" would indicate interest is paid on January 15th and July 15th.

***Knopman Note:* When a bond matures, investors receive the principal (usually $1,000) plus their final semiannual coupon payment.**

For example, if Roger buys a three-year, 5% discount bond for 86 ($860) and holds it until maturity, he will receive his final semiannual interest payment ($25) plus the par value ($1,000) for a final payment of $1,025. Up to this point, like most bonds, this bond will have paid interest in semiannual installments: $25 every six months.

The timeline below shows Roger's cash flows each year, from purchase through maturity.



Note that the interest is calculated based off the bond's par value, not the market price at which the bond was purchased.

2.1.4.1 Other Types of Interest Payments

If a bond is issued with a coupon rate that remains the same until maturity, it is called a **fixed-rate bond**. However, not all bonds are issued with fixed coupons. Issuers sometimes choose to offer bonds that pay a variable rate of return. These instruments are called **floating-rate bonds**, **adjustable-rate bonds**, or **variable-rate bonds**. As the name of the bond implies, the rate that the issuer pays to bondholders varies based on a specific benchmark, such as the Treasury Bill rate. For example, as the T-Bill rate increases or decreases, so will the coupon rate.

2.1.5 Zero-Coupon Bonds

Zero-coupon bonds pay no interest during the life of the bond. Instead, investors buy zero-coupon bonds at a deep discount from par value. The difference between the discounted price and the maturity value is the interest the investor receives from the bond. Investors are able to buy the bond at a discounted price but receive the full amount of face value at maturity.

Zero-coupon bonds are usually long term with maturities of 10 or more years. Because of this structure, zero-coupon bonds are useful to investors planning for a long-range goal, such as retirement or a child's college education. When saving for retirement or tuition payments, interim coupon payments are not important.

Example

Susan purchases a zero-coupon bond maturing in 15 years. She buys the bond for $700, and at maturity she will receive the face amount of $1,000. The $300 difference reflects Susan's return.

Because zero-coupon bonds pay no interest until maturity, their prices fluctuate more than those of other types of bonds in the secondary market. In addition, although no interest payments are made until maturity, investors may still have to pay federal, state, and local income tax on the **imputed interest**, or **phantom interest**, that accrues each year.

Pop Quiz 2 *(Chapter 2)*

True or false?

1. A bond investor can generally expect to receive interest payments twice per year, six months apart, on the first day of the month.
2. Zero-coupon bonds have no coupons, and the investor does not receive any interest.
3. Zero-coupon bonds are considered too risky to be used for important financial goals, such as building a retirement fund or planning for a child's college expenses.

2.1.6 Bond Pricing

Interest rates are the major driver of bond prices. The relationship between rates and prices is inverse: as rates rise, outstanding bond prices fall. As rates fall, outstanding bond prices rise. For example, if an investor holds a bond that was issued with a coupon of 5%, and interest rates in the market have gone up such that similar bonds are coming to market at 6%, the existing 5% bond's price will fall because the newly issued bonds will pay a higher coupon.

Why is this the case? Consider an investor with $1,000 to invest. This investor could buy an existing bond that pays 5% ($50 per year) or a new bond that pays 6% ($60 per year). The investor will prefer the new, 6% bond. Therefore, the investor stuck with the 5% bond will need to lower the price to make it more marketable.

However, if interest rates fall so that similar bonds are coming to market at 3.5%, the 5%-coupon bond becomes more valuable. The price of the 5% bond will rise, as investors will pay a premium to earn that higher coupon. This relationship is a basic concept that applies to all fixed-rate investments. As a reminder, this also applies to preferred stock, which, as discussed in the prior chapter, trades more like bonds than stock due to its regular dividend.

***Knopman Note*: Interest rates and bond prices move in opposite directions. As rates increase, bond prices decrease, and as rates decrease, bond prices increase. When the market value of a bond is greater than par, the bond is trading at a premium. If the market value of the bond is below par value, the bond is trading at a discount.**

2.1.7 Basis Points

A **basis point (bps)** is a unit of measure that equals one one-hundredth of a percentage point (0.01%). There are 100 bps (pronounced "bips") in one percentage point (100 bps = 1%).

Securities professionals use basis points to discuss small changes in bond interest rates, e.g., a tenth of a percent (10 bps) or half a percent (50 bps). For example, if the yield on a bond increases from 0.75% to 0.85%, the yield can be described as having moved by 10 bps, rather than "point 10 percent" (0.10%).

The chart below shows basis- and percentage-point equivalents, and how they are entered on a calculator.

Basis Points	Percentage Points	Entered on Calculator
1	0.01%	0.0001
10	0.10%	0.001
50	0.50%	0.005
100	1%	0.01
350	3.50%	0.035
1,200	12%	0.12

2.1.8 Maturity

The **maturity date** is the future date on which principal is returned to bondholders. Maturities can range from as short as one day to as long as 30 years. The bond's maturity is specified at issue.

A bond that matures in one year is much more predictable than a bond that matures in 30 years. Due to greater uncertainty over the long term, long-term bonds generally pay more interest than short-term bonds. It is also generally true that a long-term bond will fluctuate in price more than a short-term bond as interest rates change.

Knopman Note: **As a bond reaches maturity, its price will move toward par. For example, a 10-year bond trading at a discount for 93 ($930) will move toward par ($1,000) as it approaches maturity. A premium bond purchased for 109 ($1,090) will decline toward par as it approaches maturity.**

Knopman Note: **Some bond issuances are *term bonds*, which means the entire issuance matures at one date in the future. Other issuances are *serial bonds*, which means that outstanding bonds mature at different intervals with a portion of the issue maturing each year.**

2.1.8.1 Sinking Fund

Bond issues with longer maturities may have a **sinking fund provision** so that the issuer is prepared for the future redemption. The issuer must regularly set aside money in a special account called a **sinking fund** for the redemption of bonds before maturity. To do this, issuers establish an **escrow account** (which is an account held by a third party in safekeeping), typically with a bank. This ensures that the issuer has the necessary funds at maturity. A sinking fund enhances the safety and liquidity of the issue.

2.1.9 Call Feature

A bond is **callable** if the issuer has the right to redeem it prior to its maturity date. Issuers must clearly state the inclusion of a **call feature** at the time of issue, and disclose when they might redeem it and at what price. When a bond is called, interest payments will cease.

In most cases, an issuer will pay investors a **call premium**, which is an amount above par that compensates investors for the early redemption. Typically, the earlier the call, the higher the premium. The amount of the call premium is in the offering documents.

Example

If a bond is called after five years, the issuer might pay $1,050 to redeem the bond (a $50 premium). However, if the bond is called after 10 years, the issuer might only pay $1,025 to redeem the bond (a $25 premium).

A company is likely to call a bond if it is paying a higher coupon than current market interest rates. The company can then issue new bonds at a lower interest rate, saving money on the coupon payments. The process of calling bonds when interest rates have fallen is called **refunding**, and it is similar to a homeowner refinancing a home mortgage to make lower monthly payments.

Example

ABC Co. has 6% callable bonds outstanding. Due to a change in market conditions, ABC's underwriters advise that new bonds could be sold at a 4% rate. Therefore, by refunding and issuing new debt, ABC can save the difference of 2% annually.

Knopman Note: **An issuer will call a bond when interest rates are declining.**

Knopman Note: **If an issuer chooses to call away the bond because of declining interest rates, bondholders will receive par value, their final semiannual coupon payment, and *if applicable,* a call premium. Investors receive no interest after the bond is called.**

Example

Dave owns a $1,000 par value, 6% bond, callable at 102. If the bond is called, the issuer will pay Dave $1,050, i.e., $1,000 Par + $30 Final Semiannual Coupon Payment + $20 Call Premium.

Because this feature is attractive to the borrower (i.e., the issuer), but not so great for the bondholder, who will lose the higher rate of interest the bond is paying, callable bonds are riskier than non-callable bonds. Therefore, callable bonds will generally pay a higher rate than non-callable bonds.

Knopman Note: **A call feature benefits the issuer, not the investor.**

Some bonds can be sold with **call protection**, defined as a period of time from the date of issue during which the bond cannot be called. These provisions are set by the issuer and vary based on the market conditions at the time of issuance.

Knopman Note: **A callable bond is usually callable anytime after the call date. For example, a 20-year bond callable after 10 years could be called anytime from year 10 through maturity, not only in year 10.**

Most corporate and municipal bonds with maturities of over 10 years are callable. Bonds issued by the federal government are not callable.

2.1.9.1 Puttable Bonds

Some bonds include a **put feature**, giving investors the right to demand early repayment of principal if some predetermined event occurs, thus protecting investors. For example, if the bond rating falls or interest rates increase above a certain level, the investor has the right to sell back the bond to the issuer. The put option is generally exercisable on one or more dates, as specified in the contract of the bond.

Because puttable bonds are beneficial to investors, they pay less interest than similar straight or non-puttable bonds.

Progress Check

1. Bonds are vulnerable to interest rate risk because their prices generally decline when:
   A. interest rates rise.
   B. interest rates fall.
   C. interest rates change rapidly in either direction.
   D. interest rates are too low.

2. What is the relationship of a bond owner to the company that issues the bond?
   A. Preferred owner
   B. Subordinate owner
   C. Lender
   D. Borrower

3. A corporate bond issued by Total Co. pays an investor interest of $25 per bond, twice per year. What is its nominal yield?
   A. 2.5%
   B. 5%
   C. Nominal yield will fluctuate with the bond's price.
   D. Nominal yield will gradually increase as the bond nears maturity.

4. A corporate bond is marked M&S 15. It is now July 1. When will the next interest payment be made?
   A. August 1
   B. September 1
   C. August 15
   D. September 15

5. A corporate bond has nominal yield of 6%. Howard owns eight of these bonds. At their maturity, how much will he receive?
   A. $8,000
   B. $8,048
   C. $8,240
   D. $8,480

6. Carol buys zero-coupon bonds for her son's college education fund. When will she receive interest paid on these bonds?
   A. Only once per year
   B. Only once per five years
   C. Only at maturity
   D. Never

7. Which one of the following is *not* a benefit for investors of the registered/book-entry form of bond issuance?
   A. Ease of trading
   B. Protection against lost certificates
   C. Physical coupons
   D. Electronic ownership and transfers

8. A bond trader announces that a bond's "yield increased today by 20 bps." If the day began with a rate of 4.53%, with what rate did it end?
   A. 4.55%
   B. 4.73%
   C. 5.03%
   D. 5.53%

Progress Check—Solutions

1. **(A)** Interest rate risk is one of the main vulnerabilities of bonds. The relationship between bond prices and interest rates is *inverse*. When interest rates rise, bond prices generally fall. This is true for virtually all fixed-coupon bonds, but not for adjustable-rate bonds.

2. **(C)** Bond owners lend money to the company in exchange for interest payments and a return of principal. It is much like making any other type of loan, except that bond loans can be freely traded.

3. **(B)** Nominal yield or coupon yield is locked in at the bond's issuance and does not change. It is the total annual interest payable divided by par value, which is normally $1,000 per bond. In this case, the nominal yield is $50 of interest per year divided by $1,000 par value.

4. **(D)** Most bonds pay interest twice per year, at six-month intervals. In this case, the months of payment (M&S) are March and September. Most interest payments are made on the first day of the month. However, a marking of **15** indicates payment will be made on the 15th.

5. **(C)** At maturity, the bondholder receives par value plus the final coupon interest payment. Each semiannual coupon payment is $30, and two such payments per year create the 6% yield.

   $1,000 Par Value + $30 Interest per Bond. $1,030 × 8 Bonds = $8,240.

6. **(C)** Zero-coupon bonds do pay interest, but it is only paid at maturity, as the difference between the original discounted issue price and the maturity (par) value. For example, if a zero bond is issued at $600 and matures at $1,000, the interest is $400. Although interest is not paid until maturity, it is generally taxed annually.

7. **(C)** The registered/book-entry form has made bond investing more secure, more efficient, and much simpler for bond investors. In registered form, the record of ownership is kept by a transfer agent. There is no need for the bondholder to clip coupons to receive interest, and there is no danger of losing a paper bond certificate.

8. **(B)** Yields and interest rates are expressed in basis points (bps, bips), and 100 bps = 1%. A change of 20 bps is 0.20%.

2.2 Bond Yields

A bond's **yield** refers to the return an investor will receive from the investment. As discussed, the **coupon**, or **nominal yield**, is the stated rate that the issuer promises to pay each interest payment period. The coupon rate is usually fixed over the life of the bond.

However, other factors can influence investor returns over time. Bonds may trade in the market at a premium or at a discount to their par value. Issuers may call bonds prior to their maturity and interrupt the stream of interest payments. An investor's actual yield or return is impacted by these events.

It is important to know how to compute certain yields and to understand the relationship between the yield quotations and bond prices. Once investors comprehend yield, they can better compare different investments.

2.2.1 Nominal Yield

A bond's **nominal yield (NY)** is always equal to its coupon. To say a bond pays a 5% coupon is the same as saying the bond has a nominal yield of 5%. The nominal yield is fixed and does not change over the life of the bond.

Example

An investor purchases a bond with a 9% nominal yield from DEF Co. Every year, DEF will pay the investor $90 of annual interest in two semiannual installments. This is fixed over the life of the bond.

2.2.2 Current Yield

A bond's **current yield (CY)** is calculated as the annual interest payment divided by the current price. This represents a bond's return based on its current market price, rather than its par value. The formula for the calculation of current yield is below:

$$\text{Current Yield} = \frac{\text{Annual Interest}}{\text{Market Price}}$$

Assume a bond is issued with a 5% coupon. If the bond is trading at par (i.e., $1,000, or 100% of par), its current yield is equal to its coupon, as shown below.

$$\text{Current Yield} = \frac{\$50}{\$1{,}000} = 5\%$$

If the same bond is trading at 120 (or 120% of par, $1,200), its current yield will fall based on the inverse relationship between price and yield. This calculation is shown below.

$$\text{Current Yield} = \frac{\$50}{\$1{,}200} = 4.17\%$$

Finally, if the same bond is trading at 80 (or 80% of par, $800), its current yield will rise because its price has fallen.

$$\text{Current Yield} = \frac{\$50}{\$800} = 6.25\%$$

To summarize, for a discount bond, the CY is greater than the NY. For a premium bond, the NY is greater than the CY.

Current yield does not take into account any gains or losses the investor can realize if the bond is held until maturity.

> ***Knopman Note:* The current yield of a bond is calculated as annual interest divided by the market price. If the question provides a semiannual coupon, make sure to multiply by two to annualize it.**

2.2.3 Yield to Maturity

The yield calculation that includes the gain or loss if the bond is held to maturity is the **yield to maturity (YTM)**. YTM is the most widely quoted yield for bonds. It takes into account the current market price, par value, coupon, and time to maturity. It also assumes that all coupon payments received by the investor are reinvested back into the market at the same YTM rate.

Because YTM is calculated using a specialized calculator, you will not be asked to calculate it on the exam.

> ***Knopman Note:* YTM can be referred to in a few different ways. For example, instead of stating the bond has a YTM of 9.5%, one may use the following terminology:**
>
> - **Trading on a 9.5 basis**
> - **Trading at 9.5%**
> - **Yielding 9.5%**

2.2.4 Yield to Call

If a bond is callable, **yield to call (YTC)** becomes the more important yield calculation. It determines the investor's yield if the bond is called on the first possible call date rather than held until maturity. YTC is calculated like YTM, except the years to maturity in the formula are replaced with the years to the call and it also includes any call premium payable at the first call date.

For a bond trading at a premium, YTC is lower than YTM because the investor loses the premium paid for the bond more quickly. For a bond trading at a discount, YTC is higher than YTM, as the investor receives his discount back at an accelerated rate.

Pop Quiz 3 *(Chapter 2)*

Match each of the following yields with the best description.

A. YTC
B. YTM
C. CY
D. NY

______ Annual interest an investor receives each year

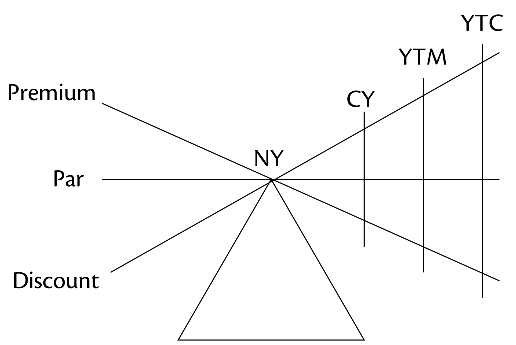
______ Annual interest an investor will get based on the price of bonds now

______ An investor's total return in the bond for holding until maturity

______ An investor's total return in the bond for holding until the first time it can be called

2.2.5 Yield Relationships

The "teeter totter" diagram below illustrates the inverse relationship between bond prices and yield.



In summary, make sure to know these key points about yield relationships:

- When a bond is trading at a premium, CY is lower than NY, YTM is lower than CY, and YTC is lower than YTM.
- When a bond is trading at a discount, CY is higher than NY, YTM is higher than CY, and YTC is higher than YTM.
- When a bond is trading at par, NY, CY, YTM, and YTC are all equal.

Knopman Note: **If an investor buys a bond with a yield to maturity that is greater than the coupon, the bond was purchased at a discount.**

For example, a 5% bond that is yielding 5.5% would be trading at a discount. In this case, the YTM of 5.5% is greater than the NY of 5%.

A 7% bond yielding (yield to maturity) 6.2% must be a premium bond.

2.3 Bond Risks

Like other types of securities, bonds have various risk factors, which investors must thoroughly comprehend before making an investment. A risk/return tradeoff exists when investing in debt instruments. This section will describe the key risks that bond investors face.

2.3.1 Interest Rate Risk

Interest rate risk is the risk that an investment's value will change as a result of a change in interest rates. This risk affects the value of bonds more directly than the value of stocks. When interest rates rise, bond prices fall; conversely, when interest rates fall, bond prices rise. This is known as the **inverse relationship** between price and yield.

Knopman Note: **The price of a bond is most affected by changing interest rates. Factors like credit rating, market demand, and the issuer's earnings potential are not as impactful.**

In general, a bond with a longer maturity and a lower (or zero) coupon will have greater interest rate risk for the investor.

Knopman Note: **Given a change in interest rates, long-term bonds are more volatile than short-term bonds, and low-coupon bonds (including zero-coupon bonds) are more volatile than high-coupon bonds.**

Knopman Note: Duration **is a mathematical formula that measures how sensitive a bond is to changing interest rates. The calculation is not tested, but candidates should know that bonds with a longer duration are more sensitive to changing interest rates.**

Pop Quiz 4 *(Chapter 2)*

Which of the following statements are TRUE about interest rate risk?

I. The risk of bond-price decline increases as interest rates rise.
II. Low-coupon bonds have more interest rate risk than high-coupon bonds.
III. Holding a zero-coupon bond to maturity does not help to eliminate interest rate risk.
IV. Short-term bonds have more interest rate risk than long-term bonds.

A. I and II
B. I and III
C. II and III
D. I, II, and III

2.3.2 Call Risk

Call risk is the risk that a bond may be redeemed by an issuer when interest rates are falling. Again, certain bonds are issued with a call feature that allows the issuer to buy back its bonds in order to re-issue new bonds at a lower interest rate. This reduces the issuer's interest expense, but investors lose their relatively high rate of interest.

Knopman Note: **Investors that are concerned with call protection are likely to purchase non-callable bonds.**

2.3.3 Reinvestment Rate Risk

Call risk leads to **reinvestment rate risk** (or simply **reinvestment risk**), which is the risk that no available investments will be able to provide a similar return as a bond that has been called.

Example

Gene purchases a long-term, 8% corporate bond. The Fed announces that it is lowering interest rates. Gene now faces reinvestment rate risk on the periodic interest payments because he must reinvest the $80 he earns each year at a lower rate of return.

Knopman Note: **Zero-coupon bonds do not have reinvestment rate risk because, since they do not pay a coupon, there is no interest to reinvest.**

2.3.4 Inflationary Risk

Inflationary risk, or **purchasing power risk**, is the risk that an investment's returns will be adversely impacted because of inflation. **Inflation** is the general increase in the price of goods and services over time, and is measured by the **Consumer Price Index (CPI)**. The CPI estimates the average price of consumer goods and services purchased by households.

It measures a price change for these goods and services from one period to the next within a given area (city, region, or nation).

Products that deliver a fixed rate of return, such as bonds or preferred stock, are susceptible to inflationary risk because their interest payments (or preferred dividends) remain constant while the cost of goods and services continues to rise.

Consider an investor who owns a 10% bond with a 10-year maturity. The bond will produce interest income of $100 each year, but in inflationary environments, that $100 buys fewer real goods and services each year. Put more plainly, $100 will buy less food, gasoline, and other services each year. At the bond's maturity in 10 years, the return of the $1,000 par principal will also have reduced purchasing power. In a deflationary environment, however, the purchasing power of a fixed-income investment increases.

Additionally, during times of very high inflation, the Federal Reserve Board might look to raise interest rates in order to curb inflation and tighten the money supply. This interest rate increase causes bond prices to decrease—another negative result of inflation for bondholders.

2.3.5 Credit Risk

The degree of risk associated with the issuer's ability to make interest payments or repay the principal is the **default**, or **credit risk**, of the bond. To attract investors, issuers that are less creditworthy (i.e., those with higher credit or default risk) must issue bonds with higher interest rates than issuers that are more creditworthy.

> ***Knopman Note:*** **If an interest payment is missed on an outstanding debt obligation, the bond will default.**

> ***Knopman Note:*** **Debt issued by the US government has little risk of default due to the government's ability to raise money through taxation. For this reason, US government securities are considered risk-free from a credit perspective. They still are susceptible to other risks, however, such as interest rate and inflationary risk.**

2.3.5.1 Credit Ratings

Bond rating services publish **credit ratings** to inform investors of bonds' credit quality. Bonds rated as **investment grade** have a lower chance of default and a corresponding lower yield. Non-investment-grade bonds have a higher chance of default (more credit risk) and a higher yield. Non-investment-grade bonds are also called **junk bonds** or **high-yield bonds**.

Government bonds, especially those issued by the US federal government, have the lowest default risk and the lowest returns, while corporate bonds have greater credit risk but pay more interest.

The ratings of the three major nationally recognized statistical ratings organizations are detailed below with AAA being the highest rating of creditworthiness.

2.3.5.2 Summary of Credit Ratings

S&P/Fitch	Moody's	Notes
AAA	Aaa	Investment-Grade Ratings
AA+	Aa1	
AA	Aa2	
AA−	Aa3	
A+	A1	
A	A2	
A−	A3	
BBB+	Baa1	
BBB	Baa2	
BBB−	Baa3	
BB+	Ba1	Non-Investment-Grade Ratings
BB	Ba2	
BB−	Ba3	
B+	B1	
B	B2	
B−	B3	
CCC+	Caa1	
CCC	Caa2	
CCC−	Caa3	
CC	Ca	
C	C	
D		

***Knopman Note:* A bond's credit rating may change periodically while it is outstanding.**

2.4 Accrued Interest

One of the advantages of owning a bond is the right to receive interest from the issuer on a regular basis. If a bond is sold in between interest payment dates, some of the interest belongs to the seller, and some belongs to the buyer. The calculation of **accrued interest** determines the amount of interest that goes to each party.

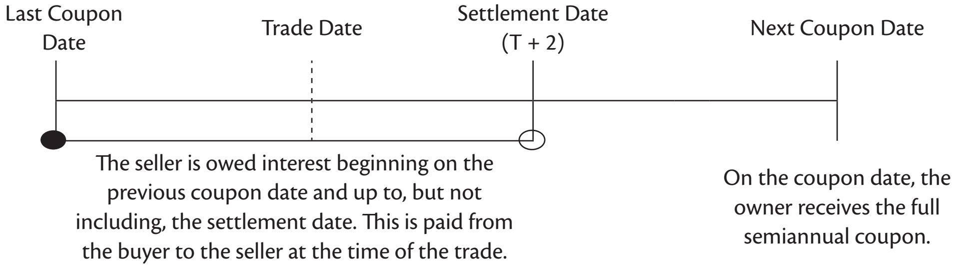
***Knopman Note:* Accrued interest is added to the purchase price of the bond. It is paid by the buyer of the bond to the seller so that the seller receives their share of the upcoming coupon when the bond is sold between coupon dates.**

To calculate the amount of accrued interest, several rules must be followed:

- For corporate, municipal, and agency bonds, a year is assumed to have 360 days, with 30 days in each month. Regular way settlement is T + 2, which is two business days after the trade date.

- For T-notes and T-bonds, a year is assumed to have 365 days, with actual-day months. US government securities settle regular way on the next business day following the trade, or T + 1.
- For corporate bonds, municipal bonds, and Treasuries, cash settlement is the same day as the trade date.

The number of days of accrued interest is calculated beginning on the last coupon date, including that date and up to, but not including, the settlement date. The image below illustrates the accrued interest process for a corporate bond:



For new issuances that have no prior interest payment date, the calculation starts with the **dated date**, or the date the issuer identifies as the date interest will first be paid. Therefore, the *first* interest payment on a bond will be from the dated date to the first coupon date rather than from one coupon date to the next. The first payment may be made during an irregular time period, which may be longer or shorter than the normal six-month period.

Finally, bonds that are currently in default or are issued as zero-coupon securities trade **flat**. Bonds that trade flat have no accrued interest payment.

> ***Knopman Note:*** **When an investor receives accrued interest, it is taxed for them as interest income based on their ordinary income tax rate, which is the rate they pay on their salary. Because it is interest income, accrued interest does not impact the bond's cost basis, which will be discussed shortly.**

Example 1: Corporate Bond Secondary Market Transaction

An investor buys corporate bonds with a $1,000 par value in the secondary market. The bonds have a 4% coupon payable on December 1 and June 1. The bond is purchased on Monday, April 9, for regular way settlement.

Step 1: Determine the settlement date.

Regular way settlement for corporate securities is T + 2. The transaction settles on Wednesday, April 11. The seller's interest is up to, but does not include, the settlement date.

Step 2: Determine the number of days of accrued interest the buyer owes the seller.

The seller's interest is from December 1 through April 10, based on 30-day months.

Month	Number of Days
December	30
January	30
February	30
March	30
April	10
Total Days	**130 Days**

Step 3: Calculate the amount of interest using the following formula.

$$\text{Accrued Interest} = \frac{\text{Interest Rate} \times \text{Par Value} \times \text{Number of Days}}{360}$$

$$\text{Accrued Interest} = \frac{0.04 \times \$1{,}000 \times 130}{360} = \$14.44$$

Example 2: Treasury Bond Secondary Market Transaction

An investor bought a $1,000 face value, 2% Treasury bond in the secondary market. The bond matures on December 1, 2030. The trade was made on Wednesday, April 11, for regular way settlement. Calculate the amount of accrued interest due to the seller at settlement.

Step 1: Determine the settlement date.

Regular way settlement for government securities is T + 1. The transaction settles on Thursday, April 12. The seller's interest is up to, but does not include, the settlement date.

Step 2: Determine the number of days of accrued interest the buyer owes the seller.

The maturity date of December 1 means that interest is paid on June 1 and December 1. The seller's interest is from December 1 through April 11, based on actual-day months.

Month	Number of Days
December	31
January	31
February	28
March	31
April	11
Total Days	**132 Days**

Step 3: Calculate the amount of interest using the following formula.

$$\text{Accrued Interest} = \frac{\text{Interest Rate} \times \text{Par Value} \times \text{Number of Days}}{365}$$

$$\text{Accrued Interest} = \frac{0.02 \times \$1{,}000 \times 132}{365} = \$7.23$$

The buyer of the bond pays the market price of the bond plus the accrued interest. The amount of accrued interest will appear on both the buyer's and the seller's trade confirmations. Bonds are said to be trading "**and interest**" when the amount of accrued interest will be added to the sales price.

> ***Knopman Note:*** **A bond that includes accrued interest in its price trades "with" or "and" interest. A bond without accrued interest trades flat.**

Pop Quiz 5 *(Chapter 2)*

Check all the statements that are TRUE about calculating bond accrued interest.

_____ For corporate, municipal, and agency bonds, a 360-day year is assumed.

_____ For corporate bonds, regular way settlement is T + 2.

_____ Accrued interest is calculated beginning on the last coupon date.

_____ Accrued interest is calculated through and including the settlement date.

_____ For Treasury bonds, a year is assumed to have 366 days.

2.5 Accretion and Amortization

When an investor buys a bond for a discount or premium, the Internal Revenue Service (IRS) requires investors to adjust the cost basis of the bond toward par value each year. **Cost basis** represents the value of an asset for tax purposes. If the asset is later sold for a profit, the difference between the cost basis and sales proceeds reflects the investor's capital gain, which they must pay taxes on.

Specifically, when a bond is purchased for a discount, the cost basis must be accreted. **Accretion** means that the cost basis of the bond must be adjusted upward toward par each year so that at maturity the investor's cost basis will equal par of $1,000.

Bonds are accreted on a straight-line basis. To calculate the annual accretion, divide the discount off par by the number of years until maturity.

Example

John buys a bond for $900 with 10 years until maturity. The annual accretion is calculated as the $100 discount off par divided by 10 years to maturity, which equals $10. Therefore, the cost basis of the bond will be adjusted upward by $10 each year. For example, after one year of holding the bond, the new cost basis will be $910.

When a bond is purchased for a premium, the cost basis must be amortized. **Amortization** means that the cost basis will be adjusted downward each year so that at maturity the investor's cost basis will equal par of $1,000. Premium bonds are also amortized using the straight-line method.

Example

Jane buys a bond for $1,100 with five years until maturity. The annual adjustment is calculated as the $100 premium divided by five years to maturity, which equals $20. Therefore, the cost basis of the bond will be adjusted downward by $20 each year. For example, after one year of holding the bond, the new cost basis will be $1,080.

Because accretion and amortization impact the investor's cost basis, it will help to determine the taxable gain or loss on a bond if the bond is sold by the investor prior to maturity.

Pop Quiz—Solutions

Pop Quiz 1 (Chapter 2)

__C__ Most common method of tracking bond ownership
__B__ Amount investor receives at maturity
__D__ Periodic bond interest paid
__A__ Loan made by an investor to an entity

Pop Quiz 2 (Chapter 2)

1. True—A bond investor can generally expect to receive interest payments twice per year, six months apart, on the first day of the month. **For example, a bond might pay interest on the first day of January and then again on the first day of July. A small percentage of bonds pay interest on the 15th of the month, instead of on the first day.**
2. False—Zero-coupon bonds have no coupons, and the investor does not receive any interest. **Zero-coupon bonds do pay interest but only at maturity. The interest is the difference between the discounted issue price and par or maturity value.**
3. False—Zero-coupon bonds are considered too risky to be used for important financial goals, such as building a retirement fund or planning for a child's college expenses. **If zeros are issued by a high-quality issuer, they generally are not considered too risky to hold to maturity. Their interest rate risk is high, and prices can be volatile, so it's a good idea to match the timing of specific financial goals to the zero's maturity.**

Pop Quiz 3 (Chapter 2)

__NY__ Annual interest an investor receives each year
__CY__ Annual interest an investor will get based on the price of bonds now
__YTM__ An investor's total return in the bond for holding until maturity
__YTC__ An investor's total return in the bond for holding until the first time it can be called

Pop Quiz 4 (Chapter 2)

(A) The relationship between bond prices and interest rates is inverse. Prices fall as rates rise, so interest rate risk is greatest in a rising-rate environment. When zero-coupon bonds are held to maturity, they have no interest rate risk, as the investor will receive the full principal at maturity. Long-term, low-coupon bonds are most susceptible to interest rate risk.

Pop Quiz—Solutions (Continued)

Pop Quiz 5 *(Chapter 2)*

__X__ For corporate, municipal, and agency bonds, a 360-day year is assumed.

__X__ For corporate bonds, regular way settlement is T + 2.

__X__ Accrued interest is calculated beginning on the last coupon date.

_____ Accrued interest is calculated through and including the settlement date. **Interest is calculated up to but not including the settlement date.**

_____ For Treasury bonds, a year is assumed to have 366 days. **For Treasuries, a year is assumed to have 365 days.**

Unit Exam

1. General Merchandise Co. issues several bonds with different maturities. Which one of these probably pays the highest yield?
   A. One-year maturity
   B. Five-year maturity
   C. 10-year maturity
   D. 30-year maturity

2. What determines the amount of interest paid by a floating-rate bond?
   A. The market value of the bond
   B. The general health of the company
   C. The value of a widely accepted bond benchmark
   D. The supply and demand characteristics of the bond issue

3. John purchased an 8% XYZ bond for $900. The bond is now trading for $980. The bond's current yield is:
   A. 8%.
   B. 8.2%.
   C. 8.9%.
   D. 9.1%.

4. Joseph owns a municipal bond that is due to mature in 2023. However, the issuer has the option to retire the bond in 2020 by paying Joseph a premium of 2% over par value. What type of bond is it?
   A. Callable
   B. Puttable
   C. High-yield
   D. Zero-coupon

5. David owns a callable corporate bond, and he wants to know in which type of economic environment the issuer will be most likely to exercise the call. The answer is:
   A. during economic expansion.
   B. in a recession.
   C. when interest rates are rising.
   D. when interest rates are falling.

6. Who has the option to demand early retirement of a puttable bond before maturity?
   A. Only the investor
   B. Only the issuer
   C. Both the investor and the issuer
   D. The put feature is automatically triggered at a specified bond price.

7. How does a sinking fund protect bond investors?
   A. Provides call protection
   B. Adds a yield booster
   C. Protects principal against rising rates
   D. Ensures funding to retire bonds at maturity

8. Which of the following measures of bond yield does not change over the full life of the bond?
   A. Nominal yield
   B. Current yield
   C. Yield to maturity
   D. Yield to call

9. What will happen to the current yield of a bond if the bond's market price suddenly drops?
   A. It will increase.
   B. It will decrease.
   C. It will stay the same.
   D. It depends on the factors behind the market price decline.

Unit Exam (Continued)

10. A bond has a current yield of 4.5% and a nominal yield of 4.7%. This must be what kind of bond?
    A. Discount
    B. Premium
    C. Term
    D. Callable

11. A bond issue has three potential call dates in the future. Which of these will be used in calculating yield to call (YTC)?
    A. The first
    B. The last
    C. An average of all three
    D. None, because the YTC calculation defaults to the maturity date in the event of multiple call dates

12. For a bond trading at a discount, which of the following yields is lowest?
    A. Nominal yield
    B. Current yield
    C. Yield to maturity
    D. Yield to call

13. Arthur buys zero-coupon bonds for his grandchild's college fund. Which of the following yields will be most meaningful for his bonds?
    A. Nominal yield
    B. Yield to maturity
    C. Current yield
    D. All yields are equally meaningful.

14. Which of the following bonds will appreciate the most as interest rates fall?
    A. 10-year, zero-coupon bond
    B. 10-year, 5% bond
    C. 30-year, zero-coupon bond
    D. 30-year, 5% bond

15. In which type of bond is reinvestment risk not a factor?
    A. Callable
    B. Municipal
    C. Federal government
    D. Zero-coupon

16. Paula wants to buy an investment-grade corporate bond. What is the lowest Standard & Poor's rating she should consider?
    A. BBB
    B. BB
    C. B
    D. CCC

Unit Exam—Solutions

1. (**D**) For the same issuer, longer maturities usually pay higher yields. This is due to the uncertainty of longer bond-holding periods, and also to the increased interest rate risk of long-maturity bonds, if interest rates rise.

2. (**C**) Interest rates of floating-rate (adjustable-rate, variable-rate) bonds are determined by the level of a popular bond index or benchmark, such as LIBOR. For example, the rate may be LIBOR + 2%. The advantage of these bonds is that they have little or no interest rate risk—i.e., they don't decline in market value if rates rise.

3. (**B**) Current yield is calculated by dividing annual interest payable by the current market price of the bond. In this case $80 annual interest divided by the current market price of $980. Do *not* use the original purchase price.

4. (**A**) A bond is callable if the issuer has a right to redeem it prior to maturity. These bonds are said to have a call feature. Typically, the issuer pays a price above par, a call premium, to retire bonds prior to maturity.

5. (**D**) It often benefits the issuer to call a bond when interest rates are declining. The issuer can then refinance by selling new bonds at a lower interest rate—i.e., a lower cost to borrow money from investors. For investors, having to reinvest returned principal in a low-rate environment is a vulnerability of callable bonds.

6. (**A**) A put feature gives the *investor* the option to retire bonds early, just as a call feature gives the issuer this option. Put features can be attractive to investors, especially in rising-rate environments. Investors can demand repayment early and reinvest in higher-yielding bonds.

7. (**D**) A sinking fund provision requires the issuer to regularly set aside money for redeeming bonds. The money is held in escrow by a third party, which ensures that the issuer has sufficient funds to retire bonds at maturity.

8. (**A**) Nominal yield is set at the time a bond is issued and does not change. The calculation uses par value, a constant, as the denominator. The numerator is annual interest payable, also a constant. The other measures of bond yield use the current market price, a variable, as a numerator, so they change constantly.

9. (**A**) Current yield is calculated by dividing annual interest payable by the current market price of the bond. If market price declines, current yield increases. This increase in yield then makes the bond relatively more attractive, which could attract more bids and boost the price.

10. (**B**) If current yield is *below* nominal yield, the bond is selling at a premium. If the reverse is true, it is selling at a discount.

11. (**A**) Remember that it is always the *first call date* (plus any call premium on that date) that is used in the YTC calculation.

Unit Exam—Solutions (Continued)

12. (**A**) Nominal yield is lowest because it is the only measure that doesn't include the capital gains realized by holding the bond to maturity or call. The capital gains are produced as the bond approaches maturity and the discount gradually disappears.

13. (**B**) Zero-coupon bonds are deeply discounted because the discount must include all interest accruing in the bond. Technically, zeros do not have either a nominal or current yield, because they pay no current interest. (The numerator is zero.) The only meaningful yield quote for a zero is YTM.

14. (**C**) Long-term, low-coupon bonds (including zeros) are the most susceptible to changing interest rates. Therefore, as interest rates fall, the price of the 30-year, zero-coupon bond will appreciate the most.

15. (**D**) Reinvestment risk is the risk that as interest rates fall, the semiannual coupon payments an investor receives will be reinvested at a lower rate. Because zero-coupon bonds have no coupons to reinvest, they have no reinvestment risk.

16. (**A**) Triple-B (BBB) is S&P's lowest investment-grade-bond rating. For Moody's, the comparable rating is Baa. Bonds rated below these categories are considered non-investment grade or junk bonds.

3. Types of Bonds

Virtually all bonds share the characteristics discussed in the previous chapter—interest, yield, pricing, and risk. Thousands of issuers sell bonds, including corporations, governments, broker-dealers, and municipalities. Bonds can be purchased as individual products or in a packaged vehicle. This unit will review the different types of issuers and fixed-income products.

Chapter Goals

- Understand convertible bond calculations.
- Know the various features of each bond type, including corporate debt, Treasury securities, and municipal bonds.
- Contrast GO bonds and revenue bonds.
- Compare the tax consequences of various bond investments.
- List the different securities that trade in the money market.

Key Terms

- **Convertible bonds**—A corporate bond that can be converted at the investor's choice into a fixed number of common shares of the company
- **Parity price**—The market value at which an investor is indifferent toward owning a convertible bond or converting into the underlying common stock
- **Mortgage-backed securities (MBS)**—Pools of mortgages that are turned into bonds, helping to create more liquidity in the mortgage market
- **Collateralized mortgage obligations (CMOs)**—Mortgage-backed securities that are structured by broker-dealers and divided into tranches, each varying by expected maturity, credit quality, and exposure to investment risks
- **General obligation (GO) bonds**—Municipal bonds issued to finance a non-revenue-producing facility (e.g., public park, public school, or public library) and backed by the taxing power of the issuing municipality
- **Revenue bonds**—Municipal bonds issued for and backed by a revenue-producing facility (e.g., a toll road, an airport, or a water treatment facility)
- **Money market securities**—Very safe and liquid debt securities with maturities of one year or less, including Treasury bills, negotiable certificates of deposit, and commercial paper

3.1 Corporate Bonds

Corporate bonds are issued by commercial and industrial entities to raise money for expansion. The term usually applies to longer-term debt instruments with maturities of at least 10 years. **Notes** are medium-term maturity instruments, and **commercial paper** is the name often used for corporate instruments with a maturity of no more than 270 days.

The vast majority of trading volume in corporate bonds takes place in the over-the-counter marketplace.

The tax consequences of owning bonds differ by the bond issuer. While certain exemptions apply to interest paid by government and municipal issuers, interest paid on corporate bonds is fully taxable as ordinary income at the federal, state, and local levels.

3.1.1 Trust Indenture Act of 1939

The **Trust Indenture Act of 1939** requires that corporate debt issues of more than $50 million include a written agreement, or **trust indenture**, between the issuer and an independent trustee acting on behalf of the bondholders. The indenture includes a number of protective **covenants**, or promises by the issuer, that are designed to protect the interests of the bondholders. Examples of covenants include:

- Submit SEC filings
- Pay taxes
- No selling of key assets
- Maintain insurance
- Maintain a certain credit profile

The **trustee**, which is typically a large bank, is legally empowered to act in the best interest of the bondholders to ensure the issuer meets its obligations.

In the event that a bond issuer defaults, the appointed trustee may be able to seize the issuer's assets and sell them to recoup the bondholders' investments.

3.1.2 Secured and Unsecured Corporate Bonds

Debt securities may be backed by collateral or may be unsecured and backed only by the "good faith" of the corporation.

3.1.2.1 Secured Debt

Secured corporate debt is backed by corporate collateral, and investors have rights to the collateral if the issuer defaults on principal and interest payments.

- **Mortgage bonds** are corporate bonds that are secured by real estate holdings or other real property.
- **Collateral trust bonds** are secured by a financial asset owned by the corporation, such as stocks, bonds, or other securities.
- **Equipment trust obligations** are debt instruments that are secured by equipment or physical assets such as airplanes, trucks, and trains.

3.1.2.2 *Unsecured Debt*

Unsecured corporate debt, also called **debentures**, pays more interest than secured debt because it is not backed by a specific asset; thus this category of debt is perceived to have greater credit risk.

> ***Knopman Note:* The terms *debenture bonds* and *unsecured corporate debt* are synonymous.**

Some unsecured debt may be contractually identified as senior to other unsecured debt, giving it higher priority in a corporate liquidation. The more junior debt is called **subordinated debt**, and its holders have a lower priority in case of a bankruptcy filing. As a result, subordinated debt pays more interest to investors.

3.1.2.3 *Liquidation Priority*

If a corporation goes bankrupt, creditors are repaid according to a priority schedule set forth in the Bankruptcy Code. Each creditor class will be paid in full before the next class receives a distribution. This waterfall continues until there are no assets left to distribute. The **liquidation priority** is set forth below:

- Secured bondholders
- Unsecured bondholders and general creditors
- Subordinated debt and convertible bonds
- Preferred stockholders
- Common stockholders

As a general matter, securities with a lower priority will have a higher expected return due to the greater risk. The table below illustrates the tradeoff between risk and return in the corporate structure.

Secured Debt	Least Risky Investment	Lowest Expected Return
Unsecured Debt		
Subordinated Debt		
Preferred Stock		
Common Stock	Riskiest Investment	Highest Expected Return

3.1.3 Convertible Bonds

A **convertible bond** offers an investor the option of converting the bond into common stock (equity) of the issuer. The terms under which this exchange can occur are detailed in the bond indenture. Because of this added feature, convertible bonds yield less interest than nonconvertible bonds from the same issuer.

Convertible securities tend to be offered by issuers as a means to achieve lower fixed costs for borrowing. Also, through the issuance of convertible debt rather than equity, issuers avoid immediate dilution of their common shares.

From an investor's perspective, though convertible bonds are a safer investment than common stock, they can provide stock-like returns. They are less volatile than stocks, and their value can only fall to a price where the yield would be equal to that of a nonconvertible bond with the same terms.

> ***Knopman Note:*** **Convertible bonds pay a lower coupon rate than comparable nonconvertible bonds.**

> ***Knopman Note:*** **Convertible bonds can be exchanged for a fixed number of shares of the issuer's common stock. Because they can be converted to common stock at any time, they generally trade more like equities and less like traditional bonds.**

> ***Knopman Note:*** **In a period of stable interest rates, the price of the convertible bond will be more volatile than that of other types of debt. This is because the convertible bond will fluctuate in price with the underlying stock.**

3.1.3.1 Convertible Bond Calculations

Upon issuance, a convertible bond has a stated price at which the bondholder is able to convert to shares of common stock. This price is called the **conversion price**.

The number of common shares that the bondholder will receive upon conversion is called the **conversion ratio**. It is always based on par value of the convertible security, regardless of the bond's current market price.

Here is the formula to determine the conversion ratio:

$$\text{Conversion Ratio} = \frac{\text{Par Value}}{\text{Conversion Price}}$$

Assuming a convertible bond has a conversion price of $25 per share, its conversion ratio is calculated as:

$$\text{Conversion Ratio} = \frac{\$1{,}000}{\$25} = 40{:}1$$

In practice, to determine whether or not to hold the bond or convert into the underlying stock, conversion parity can be calculated. **Conversion parity** is the point at which neither a profit nor loss is made at conversion.

> ***Knopman Note:*** **The *parity price* is where the investor is mathematically indifferent between owning the bond or converting the shares because either way the value is identical.**

3.1.4 Eurodollar Bonds

Eurodollar bonds are bonds issued outside the United States (e.g., in Argentina), but denominated in US dollars. These are issued and trade outside the US and are not registered with the SEC. Issuers use Eurodollar bonds to make their securities more marketable, for example, if their home currency is unstable.

When US dollars are held in a bank abroad, such as a Swiss bank account denominated in US dollars, this is referred to as a **Eurodollar deposit**.

> ***Knopman Note:*** **Eurodollar bonds are bonds issued outside the US, but denominated in US dollars, while Eurodollar deposits are US dollars held in a bank overseas.**

3.1.5 Secondary Market Trading

The **secondary market** for fixed-income securities is the largest financial market in the world. Most types of fixed-income securities, including corporate bonds, trade **over-the-counter (OTC)**, between banks, broker-dealers, and other market participants that buy and sell securities by computer or phone. This is distinct from the equity markets, whose trading is primarily conducted on exchanges.

One reason for this is that the largest companies can have hundreds of outstanding bond issues at the same time. As a result, the average bond trades far less frequently than that same issuer's common stock; this reason also drives the bid–ask spread wider, to compensate dealers for the risk they take when holding bonds.

Example

IBM may have dozens or hundreds of outstanding bond issues at any time, each with different characteristics and features—including time until maturity and interest rate. An investor who wants IBM fixed-income instruments could invest in any one of these instruments, meaning there will be fewer investors interested in any *one* bond at a specific time.

> ***Knopman Note:*** **The difference in liquidity of two corporate bonds would be impacted more so by different credit ratings, rather than the coupon or maturity of the two bonds.**

3.2 US Government Securities

The US government has historically been the largest issuer of debt in the world, with over $20 trillion in outstanding securities as of 2018. Securities issued by the US government are considered the safest that can be purchased. Default risk is nearly absent, as these securities are guaranteed by the full faith and credit of the US government, which is supported by its ability to raise tax revenues and print currency.

US government securities are actively traded on the over-the-counter market after their initial sale to large investors through auctions conducted by the Treasury. They pay less interest than corporate and municipal securities because of their unrivaled degree of safety.

Interest paid on US Treasury securities is taxable at the federal level, but is exempt from state and local income tax.

3.2.1 Marketable US Government Securities

US Treasury securities are the debt financing instruments of the United States federal government. The US Treasury Department oversees the operations of the US government and issues Treasury securities when funds are needed. Five types of marketable **Treasury securities** are actively traded on the secondary market and are highly liquid:

- Treasury bills
- Treasury notes
- Treasury bonds
- Treasury inflation-protected securities (TIPS)
- Separate Trading of Registered Interest and Principal Securities program securities (STRIPS)

> ***Knopman Note:*** **The US Treasury also issues non-marketable debt securities, such as Series I savings bonds. Non-marketable government securities cannot be resold by investors and therefore have no secondary market.**

3.2.1.1 Treasury Bills

Treasury bills, or **T-bills**, mature in one year or less. Like zero-coupon bonds, they do not pay interest prior to maturity; instead they are sold at a discount and mature at par. Many regard Treasury bills as the least risky investment available to US investors.

T-bills are issued in denominations of $100 to $5,000,000 with maturities of four weeks, 13 weeks, 26 weeks, and 52 weeks. Treasury bills are sold by the US Treasury through single-price auctions held weekly. Banks and financial institutions, especially **primary dealers**, are the largest purchasers of T-bills. Primary dealers interact with the Federal Reserve by acting as both buyers and sellers of government securities.

Treasury bills are quoted for purchase and sale in the secondary market on a discounted yield basis. This will be discussed in more detail shortly.

3.2.1.2 Treasury Notes

Treasury notes, or **T-notes**, pay interest every six months, and are issued with maturities of two, three, five, seven, or 10 years, in denominations of $100 to $5,000,000.

The 10-year Treasury note has become the security most frequently quoted when discussing the performance of the US government bond market.

3.2.1.3 Treasury Bonds

Treasury bonds, or **T-bonds**, have the longest maturity of government securities. They pay interest every six months, like T-notes, and are currently issued with a maturity of 30 years. The secondary market for Treasury bonds is highly liquid.

T-notes and T-bonds are quoted on the secondary market as a percentage of par in 32nds of a point (1/32). For example, a quote of 95:07 or 95–07 on a T-note indicates that it is trading at a discount: $952.19 (or 95 7/32%) for a $1,000 bond.

> ***Knopman Note:*** **Treasury bonds, because of their longer maturity, would be more affected by a change in interest rates than T-notes or T-bills.**

3.2.1.4 TIPS

Treasury inflation-protected securities, or **TIPS**, are inflation-indexed bonds issued by the US Treasury. The principal is adjusted semiannually based on the **Consumer Price Index**. The coupon rate is constant, but generates a different amount of interest when multiplied by the inflation-adjusted principal, thus protecting the holder against inflation.

3.2.1.5 Treasury STRIPS

The US Treasury's Separate Trading of Registered Interest and Principal Securities program allows investors to purchase the individual interest and principal components of certain Treasury notes and bonds as separate securities, called **STRIPS**. T-notes, T-bonds, and TIPS can be separated, or stripped into individual STRIPS investments, and then traded in the secondary market. STRIPS are effectively zero-coupon bonds issued by the US government.

For example, a 10-year T-note could be stripped into 21 STRIPS, resulting in a new security for each of the 20 interest payments and one security for the principal payment at the end of the bond's life.

> ***Knopman Note:*** **Like other zero-coupon securities, STRIPS are issued at a discount and mature to face value. Additionally, like other zeros, STRIPS do not have reinvestment rate risk, as there are no coupons to reinvest.**

Pop Quiz 1 *(Chapter 3)*

Match each description of a US government security in the left column below with the right type of US government security in the right column.

Description	Type of US Government Security	Answers
1. Can protect investors against higher inflation	____________	Treasury bills
2. Quoted on an annualized discount percentage basis	____________	Treasury bonds
3. Maturities of one year or less	____________	TIPS
4. High-quality zero-coupon bonds	____________	STRIPS
5. Long maturity, up to 30 years, quoted in 1/32	____________	

Answers to chapter 3 pop quizzes begin on page 95

3.2.1.6 Treasury Receipts

Treasury receipts are zero-coupon bonds that are structured by broker-dealers and backed by cash flows from Treasury securities. Essentially, a brokerage firms buys a Treasury (e.g., a 10-year T-note) and sells separate receipts against the principal and coupon payments. Therefore, these securities are backed by a single cash flow from a Treasury security, but they are technically direct obligations of broker-dealers, not the federal government. Note that, once the US government began to back the issuance of STRIPS, treasury receipts became much less popular investments.

> ***Knopman Note: Treasury receipts* are zero-coupon bonds that are structured by broker-dealers but backed by cash flows from Treasury securities.**

Pop Quiz 2 *(Chapter 3)*

Check all the statements that are TRUE about US government securities.

_____ All US government securities are very high in quality.
_____ Treasury notes and Treasury bonds pay interest once per year.
_____ Treasury bills pay interest only at maturity.
_____ Treasury bonds have more interest rate risk than Treasury notes.
_____ TIPS are linked to the Consumer Price Index.
_____ STRIPS are useful for investors who need current income.

3.2.2 Quoting Treasury Notes and Bonds

A Treasury security's quote shows the security's interest rate at the time it was sold, the maturity date, bid and asked prices, the price change from the previous day, and the yield. Prices are quoted in 32nds of a dollar.

A typical quote for a Treasury bond or note has five headings:

	ISSUE	BID	ASK	CHANGE	YIELD
	31/2 8/15/20-N	105.08	12	+3	2.57
Note	Indicates 3.5% notes that will mature on Aug 15, 2020. "N" means Note. In practice, these are referred to as the "three halves of August 2020."	Investors are willing to buy at 105 8/32, meaning $1,052.50.	Investors are willing to sell at 105 12/32, meaning $1,053.75. The ask only shows the 32nds, carrying the 105 over from the bid.	The difference between the current bid and the closing bid from the previous day. This particular bond is up 3 "ticks" (i.e., 3/32) today.	The annualized percentage return that the purchaser will receive if the note is purchased on the day of the quotation at the ask price and held until maturity.

Ask prices are always higher than bid prices for notes and bonds. The difference between the bid and the ask is called the **spread**. A small spread is an indication of strong liquidity, while a large spread indicates less liquidity. Following the ask price is the **change**—the difference between the current trading day's bid price and the closing bid price of the preceding trading day.

3.2.3 Quoting Treasury Bills

Treasury bills are quoted differently from notes and bonds, since bills do not pay an established rate of interest. An investor's return on a bill is the difference between the purchase and sales price or, when held to maturity, the face value paid by the Treasury. Bills are quoted at a discount from face value, with the discount expressed as an annual rate based on a 360-day year. This is known as a **discounted yield basis**. Unlike the quotes on notes and bonds, bid quotes on bills are always higher than the asked because the quoted amount must be subtracted from the face amount to determine the price. Put another way, the buyer wants a bigger discount than the seller is willing to offer. Below is an example of the bid–ask quote for bills:

BID	ASK
1.60%	1.50%

Example

T-bills might be bid at 0.52% (i.e., 52 bps). This means that buyers are willing to pay a discounted price on T-bills that would equate to a 0.52% annual yield. Similarly, a seller offering 0.45% (45 bps) is selling at a discounted price that would equate to a 0.45% yield. Notice the bid is *higher* than the offer. That is the case because the buyer wants a big discount off par whereas the seller is willing to give a smaller discount off par. Put differently, a higher discounted yield equates to a lower price.

3.3 Federal Agency Issues

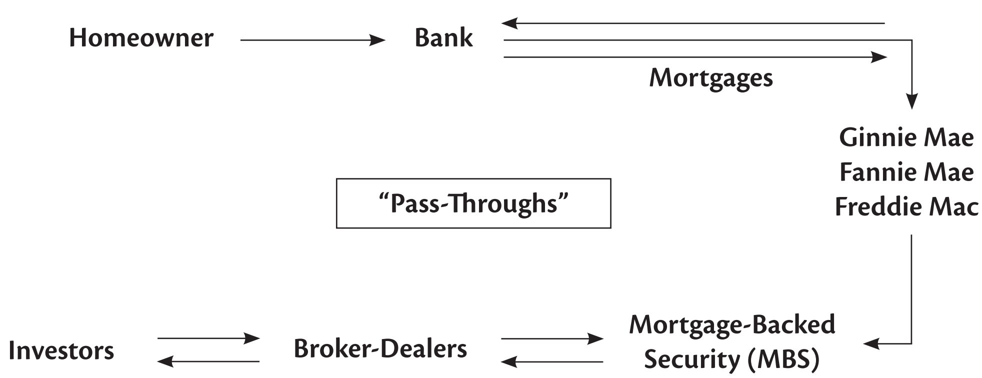
Federal government agencies and various **government sponsored enterprises (GSEs)** are authorized to raise money through issuing debt securities. The securities of these entities are collectively called **agency securities**. Agency securities are not issued by the US Treasury and are not fully guaranteed by the US government, with the exception of the debt of the Government National Mortgage Association, **GNMA (Ginnie Mae)**.

Though they are not fully backed by the US government, agency securities are considered safe from default, as the US government is likely to use its creditworthiness to guarantee investors' interest and principal payments. However, since they generally do not carry explicit Treasury backing, agency securities provide yields that are higher than those of Treasury securities.

3.3.1 Mortgage-Backed Securities

Ginnie Mae, **Fannie Mae**, and **Freddie Mac** issue **mortgage-backed securities (MBS)**. These securities represent investments in pools of mortgages, and are backed by mortgage loans. Described differently, MBS are simply loans that are sliced up into bond-like pieces (i.e., into bonds with $1,000 par value) and sold to investors. This process of converting the mortgages into bonds is referred to as **securitization.**

Sometimes referred to as mortgage **pass-through certificates**, mortgage securities are an excellent source of current income. Mortgage-backed securities are relatively safe and pay slightly higher interest than Treasury issues and many investment-grade corporate bonds.



Ginnie Mae is a government agency that has the explicit backing of the US government. In contrast, Fannie Mae and Freddie Mac, formerly government sponsored enterprises (GSEs), are now publicly traded corporations that carry the implied backing of the government. They are not *guaranteed* by the full faith and credit of the US government.

Mortgage-backed securities generate interest revenue through pools of home loan or commercial mortgages. MBS investors own an interest in a pool of mortgages that serve as the underlying asset for the MBS. When homeowners or commercial property owners make their monthly payment of interest and a small share of the principal, that money is passed through as income to the MBS investors.

Knopman Note: MBS pay monthly interest to investors.

Knopman Note: GNMA securities are backed by the full faith and credit of the US government, while GSE issues Freddie and Fannie carry an implied backing by the US government. That said, on the exam, the term "agency" may include all three entities.

Changing interest rates in the market can have a unique effect on the underlying mortgages and therefore impact the mortgage-backed securities that are based on those pools of mortgages.

3.3.1.1 Prepayment Risk

If interest rates decrease, homeowners will likely prepay their mortgages and refinance at a lower rate—hence the term ***prepayment*** **risk**. As the mortgages are prepaid, they will not remain outstanding for as long, and therefore, the mortgage-backed securities backed by these mortgages will see their maturity decrease. This has a similar effect to a bond being called, which results in:

1. Reinvestment rate risk—investors receive their money back early and are forced to reinvest at a lower rate
2. The bond sees no increase in market value, despite the decline in rates, since the bond is acting as a short-term security, which is less impacted by changing interest rates.

3.3.1.2 Extension Risk

Alternatively, if interest rates increase, homeowners with a mortgage will have no reason to refinance or prepay their mortgages. Therefore, the time it takes to repay their mortgages will increase.

As the speed of prepayments declines, the mortgages will remain outstanding for longer than initially anticipated. Therefore, the mortgage-backed security will see its maturity extended—hence ***extension*** **risk**.

Again, there will be two consequences for investors:

1. As interest rates increase, bond prices decrease. Because this is a long-term bond, which is extremely sensitive to changing rates, its price will decrease significantly.
2. Because the underlying mortgages will remain outstanding for longer than initially anticipated, the investor will be stuck in this investment for longer.

3.3.2 Collateralized Mortgage Obligations (CMOs)

Collateralized mortgage obligations (CMOs) are mortgage-backed securities that have been structured by broker-dealers and divided into distinct pieces called **tranches**. Each tranche has unique characteristics as they relate to credit quality, expected maturity, and exposure to prepayments. Each **CMO** is a set of two or more tranches, with maturity and cash-flow classes that are designed to meet specific investment objectives. The purpose of these various tranches is to help protect investors against the unique risks associated with MBS that were discussed above.

Just like other types of bonds, CMOs pay both interest and principal to investors. Additionally, their price is impacted by the credit quality of the underlying mortgages.

3.3.3 Asset-Backed Securities

An **asset-backed security (ABS)** works similarly to a mortgage-backed security. It is based on a pool of underlying financial assets that are aggregated into financial instruments and sold to investors. However, rather than being backed by mortgages, the financial assets backing these securities range from credit card debt and auto loans to more complex cash-flow arrangements such as aircraft leases, royalty payments, and movie revenues. Most types of financial assets can be structured into an ABS.

Asset-backed securities are attractive to investors because of the variety of maturities, risks, and coupons available. They are secured by the underlying pooled assets, so their credit quality is directly related to the quality of the underlying loans and borrowers.

> ***Knopman Note:*** **Asset-backed securities permit the securitization of financial assets, not of hard corporate assets. For example, a pool of student loans, auto loans, and equipment leases can all be securitized into an ABS. A piece of equipment itself (a truck, ship, or airplane) cannot be securitized.**

Progress Check

1. What is the purpose of a bond covenant?
   A. To pledge collateral for repaying bonds
   B. To restrict ability to sell bonds prior to maturity
   C. To protect bond issuers
   D. To protect bondholders

2. Which type of bond has the highest liquidation priority?
   A. Secured bond
   B. Debenture
   C. Subordinated bond
   D. Convertible bond

3. Marvin's broker has recommended that he buy convertible bonds for his retirement account. What is the most important feature of these bonds, compared to others he might buy?
   A. Convertible into a different bond issue
   B. Convertible into a higher interest rate
   C. Convertible into common stock of the issuer
   D. Put option to retire the bonds prior to maturity

4. Kevin is interested in buying a newly issued US Treasury security that pays a fixed 3.5% coupon annually and has a five-year maturity. This is a:
   A. Treasury bill.
   B. Treasury note.
   C. Treasury bond.
   D. Treasury inflation-protected security.

5. What are Treasury STRIPS?
   A. High-quality, zero-coupon bonds
   B. Special-issue Treasury notes
   C. Pools of Treasury bonds
   D. Treasury bills with no fixed maturities

6. Which of the following securities does *not* pay fixed interest?
   A. Six-month Treasury bill
   B. Three-year Treasury note
   C. 20-year Treasury bond
   D. 12-year US-agency bond

7. Are mortgage-backed securities (MBS) backed by the full faith and credit of the US government?
   A. Only Fannie Maes
   B. Only Ginnie Maes
   C. No, none are
   D. Yes, all are

8. What trend would cause the prepayment risk of mortgage-backed securities (MBS) to increase?
   A. Mortgage rates rise rapidly.
   B. Mortgage rates fall rapidly.
   C. Home prices increase rapidly.
   D. Inflation rises rapidly.

Progress Check—Solutions

1. **(D)** The trust indenture, a written agreement between the bond issuer and a trustee, includes various covenants. Each covenant is a promise that protects the interests of bondholders. For example, a covenant can prevent issuers from selling key assets.
2. **(A)** Secured bonds have the highest liquidation priority, followed, in order, by unsecured bondholders and general creditors, and then subordinated debt and convertible bonds. All bondholders rank ahead of equity holders (preferred and common) in liquidation priority.
3. **(C)** The convertible bond investor has an option to convert the bonds into common stock of the issuer. If the underlying common stock performs well, convertibles can have significant price upside. However, they generally carry a lower coupon than nonconvertibles of the same issuer.
4. **(B)** Treasury notes (T-notes) have maturities ranging from two to 10 years. Similar to Treasury bonds, they pay a fixed semiannual interest.
5. **(A)** STRIPS are very high-quality, long-term, zero-coupon bonds backed by the US Treasury.
6. **(A)** Treasury bills (T-bills) are effectively zero-coupon securities. Interest earned by the investor is the difference between the discounted purchase price and the value received at maturity.
7. **(B)** Most mortgage-backed securities (MBS) are not backed by the full faith and credit of the US government. They are backed by pools of mortgage loans. Ginnie Maes (GNMAs) are the exception; they are backed by the government's full faith and credit, while Fannie Maes and Freddie Macs carry the government's *implicit backing*.
8. **(B)** Most mortgages can be refinanced, and homeowners are most likely to refinance when mortgage rates are falling—i.e., lower-rate alternatives are available. This increases the prepayment risk in mortgage pools, the collateral backing MBS. It means MBS investors must reinvest more returned principal in a lower-rate environment.

3.4 Municipal Securities

Municipal securities finance many projects for the public good. Also called **munis**, they support the day-to-day obligations of states, counties, cities, and their agencies. Nearly every state, county, city, political subdivision, and US territory relies on raising funds through the municipal securities market. Issuers of municipal bonds include:

- States
- Cities
- Counties
- Towns
- Villages
- Interstate authorities (e.g., Port Authority of New York and New Jersey)
- Intrastate authorities (e.g., Long Island Power Authority), and
- US territories, possessions, and commonwealths, including Guam, Samoa, Puerto Rico, and the US Virgin Islands

These issuers often rely on a **municipal advisor**, which is a person or firm that provides advice to the municipal entity with respect to the issuance process, helping the municipality to determine what type of municipal securities to issue along with the structure and terms of the deal.

Once issued, these securities are backed by taxes or revenues received by the issuer, subject to applicable provisions of state or local law.

Unlike the market for Treasury securities, the secondary market for municipal bonds is highly illiquid because each issuance is unique, with its own credit structure, terms, and conditions. As a result, the chances of a specific bond being available in the market at any given time are relatively small. Additionally, many municipal bonds are purchased by buy-and-hold investors who want to benefit from the potential tax benefits of these securities (which will be discussed later).

3.4.1 General Obligation Bonds

General obligation bonds, or **GO bonds**, are municipal bonds that are backed by the "full faith and credit" of the issuer. The principal and interest on these bonds is guaranteed by revenues raised by the issuer, primarily from its taxing authority. They are not backed by specific assets. The legislative authority of the issuing municipality can also be called upon. For example, an act of a state legislature may make funds available to pay bondholders.

> ***Knopman Note:*** **The interest and principal of GO bonds is backed by the full taxing power of the issuing municipality.**

GO bonds give municipalities a tool to raise funds for non-revenue-producing, long-term capital projects. GO bonds are typically used to fund projects and infrastructure improvements that will serve the entire community, including roads, parks, government buildings, and school buildings.

Aside from levying income taxes or sales taxes to pay principal and interest, states and local municipalities can use various types of fees, such as license fees, to provide backing for GOs.

Most counties, cities, towns, and villages also rely on various kinds of **ad valorem** taxes for backing GO bond issues. Ad valorem taxes are based on the value of a transaction—examples include sales tax and property tax. Ad valorem taxes can be assessed when property is purchased. They may also be levied on an ongoing basis.

Property and real-estate taxes are the most common types of ad valorem taxes used to redeem GO bond issues. For example, if a school district creates a bond issue to fund a new school building, it might increase the property tax rate in the district to ensure that it will have sufficient income to meet its principal and interest obligations.

Property taxes are computed on the assessed value of a property, not the market value. Additionally, property taxes are only levied at the local level, not the state level.

The precise source and priority of payment for general obligation bonds may vary considerably from issuer to issuer depending on applicable state or local law.

Pop Quiz 3 *(Chapter 3)*

Match each of the following abbreviations with the appropriate description.

A. TIPS
B. MBS
C. GO
D. CMO

_____ Structured mortgage-backed security
_____ Municipal bond backed by the issuer's full faith and credit
_____ Treasury bond with inflation-protection features
_____ Pools of mortgages securitized into bonds

3.4.1.1 Debt Limits

The issuer's taxing authority may be subject to certain **debt limits**. A debt limit establishes the total amount of GO principal that can be outstanding at any time. Issuers who have outstanding debt that falls substantially below their debt limits are generally viewed as offering greater safety to investors.

Further contributing to the safety of GO bonds is that many proposed new issues are subject to voter approval as imposed by a state's constitution or statutes or by local ordinance. This is often called a bond referendum. For example, a school district may require that a **bond referendum** pass with a two-thirds majority before the school district can proceed with building a new gymnasium.

Although state or local laws greatly impact the source and priority of payments to bondholders, GO bonds are valued for their relative safety. They may be rated similarly to US

Treasury securities and high-grade corporate bonds. This high credit rating exists because municipalities generally have the option of raising taxes or levying new taxes to meet their obligation to bondholders.

3.4.2 Revenue Bonds

As the name suggests, **revenue bonds** are backed by a specific source of revenue associated with the project for which financing has been secured. For example, if revenue bonds are issued to build a convention center, the fees collected from persons who use the facility and attend concerts, meetings, or sporting events will pay the expenses of building and maintenance along with the ongoing principal and interest owed to bondholders.

Typical issuers of revenue bonds include:

- Entities that provide an essential public service—most commonly:
    - Transportation systems
    - Power systems
    - Sewer systems
- Water systems
- Nonprofit organizations, also known as 501(c) organizations, and
- Private-sector corporations, such as hospitals

Unlike GO bonds, revenue bonds do not rely on the general funds of an issuing authority or depend on raising additional taxes. Instead, the principal and interest payments to revenue bondholders are made by the stream of income that is generated by the project. The issuer of a revenue bond is not obligated to pay principal and interest on the bonds it issues from any source other than those revenues specifically pledged to debt service.

Generally, any political entity or government agency that generates operating expenses or revenues can issue revenue bonds. However, an agency that provides a free service, such as a public school, cannot issue revenue bonds because its revenue source is limited to tax dollars or government funding.

Revenue bonds offer municipalities financing flexibility. Because these bonds are not backed by tax revenue, they can be issued outside of the issuer's legislative debt limits. They help ensure that improvements can move forward without burdening the municipality and its constituents with additional direct debt obligations.

3.4.2.1 The Bond Indenture and Covenants

Because they are backed by user charges, rather than the taxing power of the municipality, revenue bonds are generally issued with a **bond indenture** (i.e., **trust indenture**).

As with corporate bond issues, the trust indenture for revenue bonds is a series of promises between the issuer and a trustee. The bond indenture includes a number of protective **covenants**, or promises, that cover details of the issue as well as day-to-day management matters. The purpose of the document is to protect and reassure bondholders.

Although munis are not subject to the Trust Indenture Act of 1939, which applies to corporate bond issues, trust indentures for revenue bonds are standard practice, and they supply investors with the same type of protection as corporate trust indentures.

3.4.3 GO and Revenue Bonds Compared

The table below summarizes several key features of GO bonds and revenue bonds:

Feature	GO Bonds	Revenue Bonds
Backing	Full faith and credit, taxing authority of the issuer, legislative appropriation	Revenues produced by the use of the facility or project
Issuers	States, counties, cities, towns	Any authorized political entity that generates revenue
Projects Supported	Infrastructure projects that are "free" to the public	"Fee for use" projects
Statutory Limitations	Constitutional limits, debt limits, tax limits	Does not apply
Voter Approval	Bond referendums	Does not apply

3.4.4 Short-Term Municipal Obligations

Municipalities can also issue short-term obligations, which typically mature in one year or less but otherwise share many features with the municipal bonds already discussed.

3.4.4.1 Municipal Notes

A **municipal note** is a short-term, high-quality municipal issue that is sold by a municipality to help manage its cash flow. Notes are usually issued in anticipation of funds from another source or longer-term financing. A number of different types of municipal notes exist, but the most popular ones are mentioned below.

Tax Anticipation Notes (TANs)

As the name implies, these notes are issued in anticipation of future tax receipts. For example, a municipality may issue a **tax anticipation note (TAN)** that will be repaid by receipts from ad valorem taxes that are due at a future date.

Revenue Anticipation Notes (RANs)

These municipal notes are issued in anticipation of receiving non-tax revenues in the future. Sales taxes are a typical backing for **revenue anticipation notes (RANs)**.

Bond Anticipation Notes (BANs)

Bond anticipation notes (BANs) are typically issued to support capital projects, and are repaid by proceeds from the issuance of long-term bonds. They provide interim financing until the bond issue can be prepared and sold.

3.4.5 Taxation of Municipal Securities Interest

One of the primary benefits of investing in municipal bonds is that interest paid on these bonds is generally exempt from federal income tax, and it may also be exempt from state and local taxes. Because of this advantage, investors are willing to accept lower interest payments than on other types of debt securities, assuming comparable risk.

The tax exemption of interest is also beneficial to municipal issuers, as it allows them to borrow money at a lower cost by issuing bonds with lower coupon rates.

Purchasers of municipal bonds should be aware that not all municipal bonds are tax-exempt, and not all tax-exempt bonds are free from all federal and state taxes. The laws governing the taxability of municipal bond income are complex. At the federal level, these laws are contained in the Internal Revenue Code, while each state has its own laws that identify which bonds, if any, are exempt from state taxes.

> ***Knopman Note:*** **Unless otherwise specified, assume municipal bonds pay tax-exempt interest.**

> ***Knopman Note:*** **The tax benefits of municipal bonds refer to the bond's interest income, not any capital gains generated from the sale of the bond.**

3.4.5.1 Federal Tax Exemption

A federal income tax exemption applies to the interest paid on **public purpose municipal bonds**, which are those that benefit the municipality at large. This means that the interest received from **public purpose bonds** is free from federal income tax. Capital gains, however, are taxable.

The federal tax exemption for interest income sets municipal bonds apart from the bonds of other issuers. Because of this unique tax feature, the term "**tax-free investment**" is often used interchangeably with "municipal bond investment."

For example, assume an investor purchases $1,000's worth of NY state municipal bonds with a 4% coupon. Each year the investor receives $40 of tax-free income. Meanwhile, an investor who owns a 4% corporate bond would be required to pay taxes on the $40 of annual interest income.

Due to this tax advantage, the investor will accept a lower yield from a municipal security than from similar taxable securities. Because of this yield differential, the investor's tax status plays a major factor in the attractiveness of municipal investments. While municipal securities could benefit investors in any tax bracket, they tend to appeal the most to those in the highest tax brackets.

> ***Knopman Note:*** **Tax-free municipal bonds are most suitable for those in higher tax brackets, as these investors will most benefit from the tax-free interest. They are unsuitable for retirement accounts or pension funds that benefit from income-tax sheltering.**

3.4.5.2 *State Taxation of Interest*

In most states, the interest income from municipal bonds issued by the state, its agencies, or its political subdivisions is free from state income taxes in that state.

For instance, a resident of New York who buys any public purpose bond issued by a municipality in New York will not have to pay New York state income taxes on the interest income. However, if the same New York resident purchases a California public purpose bond, the investor will owe New York state income taxes on the interest.

Locales with city taxes, such as New York City, may also have a tax exemption for interest from qualifying bonds at the city tax level. A qualified New York City municipal bond, for example, would be **triple-tax-free**—exempt from federal, state, and local taxes—for an investor living in New York City.

The benefit of not paying state and possibly local income taxes, in addition to not paying federal income taxes, increases the value of the tax exemption even more. When it comes to the state exemption, the higher a state's income tax, the greater the incentive for state residents to purchase their state's bonds. Conversely, states without an income tax must offer slightly higher yields to attract both in-state and out-of-state buyers.

Interest from **territory bonds** is generally exempt from taxation by federal, state, and local authorities anywhere in the US. Therefore, US-territory bonds are also considered triple-tax-free. US territories include Guam, Samoa, Puerto Rico, and the US Virgin Islands.

3.4.5.3 *Taxable Municipal Securities Interest*

The interest on some municipal securities is taxable by the federal government. The primary driver behind this tax treatment is that the financed activities are not providing significant benefit to the public. For example, bonds that are issued to finance stadiums or build executive private jet airports are **private-purpose** or **private activity** municipal issues that may not qualify for a federal or state tax exemption.

Industrial development revenue (IDR) bonds, which are bonds issued for the benefit of a private corporation, are also considered private activity bonds. For example, a municipality might issue an IDR to build a commercial office building and then lease the facility to a company. The bonds encourage economic development and job creation, but because the immediate benefit belongs to the private company, they are taxable.

> ***Knopman Note:*** **Industrial development revenue bonds are backed by lease payments made by the corporation to the municipality and therefore the debt is the responsibility of and affects the credit quality of the corporation.**

Alternative Minimum Tax and Private Activity Bonds

Investors who own certain types of private activity bonds may be subject to the **alternative minimum tax (AMT)**. The **AMT** is a separate tax computation under the Internal Revenue Code that, in effect, counteracts many other tax deductions or credits. It was designed to ensure that high-income persons with numerous tax deductions and credits pay their fair share of income tax. The AMT requirement can create a tax liability for an individual who would otherwise pay little or no tax.

The AMT must be calculated separately from the normal tax calculation, and then compared. Whichever calculation results in the higher tax is the one that must be paid. The AMT calculation begins with the regular income amount and then makes certain adjustments to that income. Included in the AMT calculation is interest on private activity bonds.

The customer's trade confirmation includes whether the income is subject to the AMT, and if the bond was purchased in the primary market, the front cover of the **official statement**, which is a municipal bond's primary disclosure document, will indicate whether the bond is subject to the AMT. For context, a picture of an official statement appears below.

OFFICIAL STATEMENT dated January 12, 2012

NEW ISSUE — Standard & Poor's Rating: "AA" (See "Ratings" herein)
BOOK-ENTRY — Moody's Rating: "Aa2" (See "Ratings" herein)

In the opinion of Orrick, Herrington & Sutcliffe LLP, Bond Counsel to the City, based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code of 1986. In the further opinion of Bond Counsel, interest on the Bonds is not a specific preference item for purposes of the federal individual or corporate alternative minimum taxes, although Bond Counsel observes that such interest on the Bonds is included in adjusted current earnings when calculating federal corporate alternative minimum taxable income. In the further opinion of Bond Counsel, based upon an analysis of existing laws, regulations, rulings and court decisions, interest on the Bonds is exempt from personal income taxation imposed by the State of Oregon. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the Bonds. The City has designated the Bonds as "qualified tax-exempt obligations" under Section 265(b)(3) of the Code. See "TAX MATTERS" herein.

$8,500,000
CITY OF WEST LINN
CLACKAMAS COUNTY, OREGON
GENERAL OBLIGATION BONDS, SERIES 2012

DATED: Date of Delivery — **Due: As shown on inside cover**

The City of West Linn, Clackamas County, Oregon (the "City") provides this Official Statement in connection with the issuance of its General Obligation Bonds, Series 2012 (the "Bonds"). The Bonds mature on June 1 in each of the years through 2031 and on December 1, 2031 and in the amounts set forth on the inside cover and will bear interest semiannually on June 1 and December 1 of each year, commencing December 1, 2012, from the Date of Delivery to the dates of maturity at the rates per annum as shown on the inside cover.

The Bonds are general obligations of the City. The full faith and credit and taxing powers of the City are pledged to the successive owners of each of the Bonds (the "Bondowners") for the punctual payment of such obligations, when due. The City covenants with the Bondowners to levy annually a direct ad valorem tax upon all of the taxable property within the City without limitation as to rate or amount, and outside of the limitations of sections 11 and 11b, Article XI of the Oregon Constitution, after taking into consideration discounts taken and delinquencies that may occur in the payment of such taxes, and any other funds available to pay interest accruing and the principal maturing on the Bonds promptly when and as they become due. The Bonds do not constitute debt or indebtedness of Clackamas County, the State of Oregon, or any other municipal corporation or political subdivision thereof other than the City.

The Bonds will be issued as fully registered bonds under a book-entry system, initially registered to Cede & Co., as nominee of The Depository Trust Company ("DTC"), New York, New York, which will act as securities depository for the Bonds. Individual purchases of Bonds will be made in the principal amount of $5,000, or integral multiples thereof within a single maturity. The purchasers will not receive certificates representing their interest in the Bonds, as long as the Bonds are in book-entry form. Principal of and interest on the Bonds will be payable through the principal corporate trust offices of the registrar and paying agent of the City, currently U.S. Bank National Association (the "Paying Agent"). For so long as the Bonds are held by DTC in book-entry form, principal and interest payments will be made as described herein. See "The Bonds - Book-Entry System."

The Bonds are subject to optional redemption prior to their stated maturities as described herein. The City has designated the Bonds as "qualified tax-exempt obligations" within the meaning of Section 265(b)(3)(B) of the Code.

The Bonds are being issued to finance construction of a new police station and to pay costs of issuance of the Bonds. (See "Description of the Bonds - Use of Proceeds," "Security" and "Authorization for Issuance" herein.)

The Bonds are offered for sale to the original purchaser subject to the opinion as to legality of the Bonds, and tax-exemption of the Bonds by Bond Counsel, which opinion will be delivered with the Bonds. The Bonds, in book-entry form, are expected to be available for delivery through the facilities of DTC for delivery by Fast Automated Securities Transfer on or about January 25, 2012 (the "Date of Delivery").

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire official statement to obtain information essential to making an informed investment decision.

3.4.5.4 The Value of Tax-Exempt Interest

Investors considering municipal-bond investments must compare the yields of taxable bonds with those of tax-free municipal bonds to determine which investment will earn more after taxes. Depending on the investor's tax bracket, the tax-free municipal bond with a lower yield may offer a higher after-tax return than a higher-yielding corporate bond.

3.5 Tax Treatment of Fixed-Income Securities

The chart below summarizes the tax treatment of the various fixed-income securities that have been discussed in this chapter.

Issuer	Federal Tax	State and Local Tax
US Treasury Securities	✓	
Government National Mortgage Association (Ginnie Mae)	✓	✓
Federal Home Loan Mortgage Corporation (Fannie Mae)	✓	✓
Federal Home Loan Mortgage Corporation (Freddie Mac)	✓	✓
Federal Farm Credit Banks (Farm Credit)	✓	
Corporate Bonds	✓	✓
Collateralized Mortgage Obligations (CMOs)	✓	✓
Foreign Debt Securities	✓	✓
Municipal Bonds (in-state purchaser)		
Municipal Bonds (out-of-state purchaser)		✓

3.6 Money Market Instruments

The **money market** is the part of the global fixed-income market that issues and trades debt instruments with the shortest maturities—typically less than one year. Money market instruments are considered near-cash assets. They are issued by government entities, financial institutions, and corporations, and their quality can vary widely, based on the issuer's credit rating. However, most money market instruments are relatively liquid and low in risk compared to longer-term bonds. Investors are never far away from receiving a promised return of principal, which can be reinvested in other opportunities.

Although individual investors participate in the money market, it is primarily an institutional market, in which large-denomination trades are the norm. Individual investors who enter this market often do so through pooled funds, such as money market mutual funds, to take advantage of economies of scale. The most important types of money market instruments are described below.

Money market funds are generally considered the safest possible investment—so much so that they are often referred to as "cash" in a brokerage account. They offer maximum liquidity with little risk.

> ***Knopman Note:*** **Because Treasury bills have maturities of one year or less, they can trade in the money market. Similarly, T-notes or T-bonds with one year or less to maturity can trade in the money market. However, no equities (e.g., ADRs or preferred stock) trade in the money market.**

3.6.1 Commercial Paper (CP)

Commercial paper (CP) is a negotiable, unsecured debt instrument issued by a corporation to finance short-term operating expenses and working capital needs. Most commercial paper is issued in the form of **promissory notes**. They are typically issued at a discount to their maturity value, with the discount representing interest that will be paid at maturity. In order for commercial paper to be exempt from SEC registration under the '33 Act, maturities may not exceed 270 days.

> ***Knopman Note: Commercial paper* is an unsecured promissory note, issued by corporations at a discount. It typically has a maximum maturity of 270 days.**

3.6.2 Certificates of Deposit (CDs)

Certificates of deposit (CDs) are deposit accounts or promissory notes issued by banks with fixed maturities. They pay interest through maturity and may have limited liquidity or withdrawal penalties if redeemed prior to maturity. Individuals are attracted to CDs largely because principal and interest is insured up to a limit (currently $250,000 per depositor) by the **Federal Deposit Insurance Corp (FDIC)**.

3.6.2.1 Non-Negotiable CDs

Most CDs offered to individuals are **non-negotiable CDs**, which means they cannot be resold, and can only be redeemed by the issuing bank. Because they cannot be traded, non-negotiable CDs are not considered securities and do not trade in the money market.

3.6.2.2 Negotiable CDs

Negotiable CDs are transferable to other investors; therefore, they are considered securities and can be traded in the secondary market. However, for many negotiable CDs, the secondary markets tend to be quite limited. Some CDs can be redeemed with the issuing bank prior to maturity (though generally an early redemption fee applies) if an investor cannot liquidate a negotiable CD in the market. Many negotiable CDs have maturities of one year or less though they can also be issued with multi-year maturities. The minimum face value of negotiable CDs is $100,000.

3.6.3 Banker's Acceptances (BAs)

A **banker's acceptance (BA)** is a short-term negotiable debt instrument issued by a borrower and guaranteed by a commercial bank. Technically, it is a time draft drawn on a deposit at a bank. This means it is like a corporate check, without a checking account, which will not be cashed immediately on receipt. The borrower and the bank are each liable for paying promised interest and repaying principal at maturity. Maturities are typically 180 days or less, and issues can usually be sold on the secondary market prior to maturity.

Traditionally, BAs were used to finance international trade. Importers would ask their banks to issue BAs maturing on the date their payments were due, with the maturity value drawn against their deposit accounts at the bank. Exporters could then receive BAs, secure in the knowledge that a bank stood behind payment. If exporters needed immediate cash, they could sell BAs on the secondary market prior to maturity.

> ***Knopman Note:* A banker's acceptance is a money market instrument that is used to finance and facilitate international trade.**

3.6.4 Repurchase and Reverse Repurchase Agreements

A **repurchase agreement**, or a **repo**, is a contractual arrangement between two parties, in which one party agrees to sell securities to another party at a specified price with a commitment to buy the securities back at a later date for another specified price. The higher repurchase price includes interest to the lender. Repos are similar to short-term interest-bearing loans against collateral.

Whether the transaction is a repo or a **reverse repo** depends on the party to the contract. If the party is lending the securities to later buy them back, it is a repo. The buyer in the same transaction is engaging in a reverse repo.

The Federal Reserve System uses repurchase and reverse repurchase agreements with member banks to impact monetary policy. Repos temporarily add reserve balances to the banking system, while reverse repos temporarily drain balances from the system. This activity affects money supply and interest rates.

Pop Quiz 4 *(Chapter 3)*

Match the description in the left column with the type of money market instrument listed in the right column.

Description	Type of CD	Choices
1. Offered to individuals and can't be traded	______	Banker's acceptances
2. Used to finance international trade	______	Commercial paper
3. Unsecured corporate debt that typically has a maximum maturity of 270 days	______	Repurchase agreements
4. Often used by the Fed to impact monetary policy	______	Non-negotiable CDs

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 3)*

Description	Type of US Government Security
1. Can protect investors against higher inflation	TIPS
2. Quoted on an annualized discount percentage basis	Treasury bills
3. Maturities of one year or less	Treasury bills
4. High-quality zero-coupon bonds	STRIPS
5. Long maturity, up to 30 years, quoted in 1/32	Treasury bonds

Pop Quiz 2 *(Chapter 3)*

__X__ All US government securities are very high in quality.
_____ Treasury notes and Treasury bonds pay interest once per year.
__X__ Treasury bills pay interest only at maturity.
__X__ Treasury bonds have more interest rate risk than Treasury notes.
__X__ TIPS are linked to the Consumer Price Index.
_____ STRIPS are useful for investors who need current income.

Explanation: T-notes and T-bonds pay interest twice per year. For Treasury bills, interest is the difference between the discounted purchase price and par value paid at maturity. Thus, interest is paid only at maturity. STRIPS are zero-coupon bonds, so they do not meet a need for current income.

Pop Quiz 3 *(Chapter 3)*

__D__ Structured mortgage-backed security
__C__ Municipal bond backed by the issuer's full faith and credit
__A__ Treasury bond with inflation-protection features
__B__ Pools of mortgages securitized into bonds

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 3)*

Description	Type of CD
1. Offered to individuals and can't be traded	Non-negotiable CDs
2. Used to finance international trade	Banker's acceptances
3. Unsecured corporate debt that typically has a maximum maturity of 270 days	Commercial paper
4. Often used by the Fed to impact monetary policy	Repurchase agreements

Unit Exam

1. A convertible bond can be converted into common stock of the bond issuer at a price of \$20 per share. The bond is currently selling for \$800. What is the conversion ratio?

   A. 40:1
   B. 50:1
   C. 80:1
   D. It can't be determined from the information given.

2. Which of the following treasury securities has the greatest interest rate risk?

   A. Six-month T-bill
   B. 10-year T-note
   C. 30-year T-bond
   D. 30-year STRIP

3. Which of the following types of bonds generally has the lowest bid–ask spreads in secondary market trading?

   A. US Treasuries
   B. Municipal bonds
   C. Corporate coupon bonds
   D. Corporate zero-coupon bonds

4. Which of the following is *not* a maturity for Treasury-bill issuance?

   A. 13 weeks
   B. 26 weeks
   C. 52 weeks
   D. 78 weeks

5. A US Treasury note is quoted at 97.24 ask. What is the price in dollars an investor will pay to buy this bond, assuming \$1,000 par value?

   A. \$970.24
   B. \$972.40
   C. \$975
   D. \$977.50

6. Dawson's broker is recommending that he buy TIPS for his retirement plan. What is the major feature of these securities, compared to other types of US Treasuries?

   A. Zero coupon
   B. Inflation protection
   C. Variable maturity
   D. Higher safety

7. What is a big advantage of Treasury STRIPS over T-bonds with similar maturity?

   A. No reinvestment rate risk
   B. Higher quality
   C. More current income
   D. Enhanced covenants

8. In trading any bond, what does the spread indicate?

   A. Relative quality
   B. Relative yield to maturity (YTM)
   C. Trading volume
   D. Trading liquidity

9. In a mortgage pass-through US agency security, what is passed through?

   A. Risk is passed through from investors to the agency.
   B. Coupon income is passed through from the agency to investors.
   C. Mortgage principal and interest is passed through from pools to investors.
   D. Mortgage insurance premiums are passed through from insurers to investors.

Unit Exam (Continued)

10. Mark owns general obligation (GO) municipal bonds issued by the county in which he lives. He wants to know what collateral stands behind these bonds. The best answer is:

    A. the full faith and credit of the state government.
    B. the ability of his county to stick to its budget.
    C. his own property taxes.
    D. a collateral bond posted by the county.

11. William wants to know whether he is a good candidate to own public purpose municipal bonds. He needs current income and a relatively high level of safety. The answer probably depends on:

    A. his holding period.
    B. his income and tax bracket.
    C. his ability to understand sophisticated investments.
    D. his liquid assets.

12. A New York resident purchases a California municipal bond. The interest income is:

    A. taxable at both the federal and state levels.
    B. tax-free at the state level, but taxable at the federal level.
    C. tax-free at the federal level, but taxable at the state level.
    D. tax-free at both the federal and state levels.

13. Which of the following fixed-income securities pays interest that is *not* subject to state and local income tax?

    A. US Treasuries
    B. Ginnie Maes
    C. CMOs
    D. Corporate bonds

14. Which of the following investments would *not* be found in a money market mutual fund?

    A. Treasury bill
    B. Municipal bond
    C. Commercial paper
    D. Negotiable certificate of deposit

15. What is the best description of commercial paper?

    A. Short-term municipal security backed 100% by Treasury bills
    B. Short-term, mortgage-backed security
    C. Short-term promissory note issued by corporations
    D. Certificate of ownership in a money market mutual fund

16. Which one of the following is *not* a feature of a negotiable CD?

    A. Backed by FDIC insurance
    B. Minimum face value of $100,000
    C. Transferable to other investors
    D. Pays federally tax-exempt interest

Unit Exam—Solutions

1. (**B**) To calculate the conversion ratio, divide par value by the conversion price.

   $1,000/$20 = 50.

2. (**D**) Long-term, zero-coupon bonds (such as STRIPS) are the most volatile in the face of changing interest rates.

3. (**A**) US Treasuries are *by far* the most liquid debt issues in the secondary market, with very narrow bid–ask spreads.

4. (**D**) The maximum maturity of a Treasury bill (T-bill) is 52 weeks. Treasuries with longer maturities are Treasury notes (T-notes) and Treasury bonds (T-bonds).

5. (**D**) T-notes and T-bonds are quoted as a percentage of par in 32nds of a point. 1 point equals $10, and each 32nd equals 0.3125. You could reason that 24/32nds is three-fourths of a point equals $7.50, so $970 + $7.50 = $977.50.

6. (**B**) TIPS are Treasury inflation-protected securities. They are issued by the Treasury and carry the US government's full faith and credit. Principal is adjusted semiannually based on the Consumer Price Index to protect investors against inflation.

7. (**A**) Although T-bonds are of very high quality, they do have reinvestment rate risk, which is the risk that the semiannual coupon payments that the investor receives will be reinvested back into the market at a lower rate. Because STRIPS do not have coupons, they have no reinvestment rate risk.

8. (**D**) The spread, or the gap between the bid and ask prices, is a direct indicator of trading liquidity—the ability to buy or sell quickly and at an advantageous price. The lower the spread, the greater the liquidity. The spread is an indirect indicator of trading volume. Lower spreads usually (but not always) indicate higher trading volume.

9. (**C**) Mortgage pass-through securities hold pools of mortgages—residential or commercial. As mortgage payments are made, the pools pass through to the securities holders and both principal and interest are paid. The mortgages held by the pools are the main collateral backing the securities.

10. (**C**) GO bonds are backed by the full faith and credit of the issuer, a county in this case. This means the full taxing power of the county. The largest source of tax revenue for most counties is ad valorem (property) taxes. The county can increase these taxes, if necessary, to fulfill its obligations to bondholders.

11. (**B**) Federal tax exemption applies to the interest paid on public purpose municipal bonds. This makes these bonds attractive, relative to taxable bonds, for investors in high tax brackets. However, these bonds are generally not suitable for retirement accounts that already benefit from tax sheltering.

12. (**C**) Municipal bond interest is tax-free at the federal level. If the investor is a resident of the state of issuance, it is also tax-free at the state and local levels. Otherwise, state and local taxes apply.

Unit Exam—Solutions (Continued)

13. (**A**) Most types of fixed-income securities (except municipal bonds) pay interest that is taxable by both the federal and state/local governments. However, interest paid on US Treasuries is exempt from state and local income taxes. (It is subject to federal income taxes.)

14. (**B**) A money market mutual fund is an investment company that pools investors' capital in *short-term* instruments such as Treasury bills, certificates of deposit, and highly rated commercial paper. Long-term municipal bonds are not eligible securities for money market funds.

15. (**C**) Commercial paper is a negotiable, unsecured debt instrument issued by corporations to finance short-term needs. Most commercial paper is issued in promissory note form.

16. (**D**) Negotiable CDs have many of the same characteristics as regular CDs. They are issued by banks and carry FDIC insurance coverage, currently up to $250,000 per depositor. Also, they pay interest that is taxable. Key differences are 1) a larger minimum face value (at least $100,000) and 2) ability to be transferred to other investors through secondary-market sales.

4. Investment Company Securities

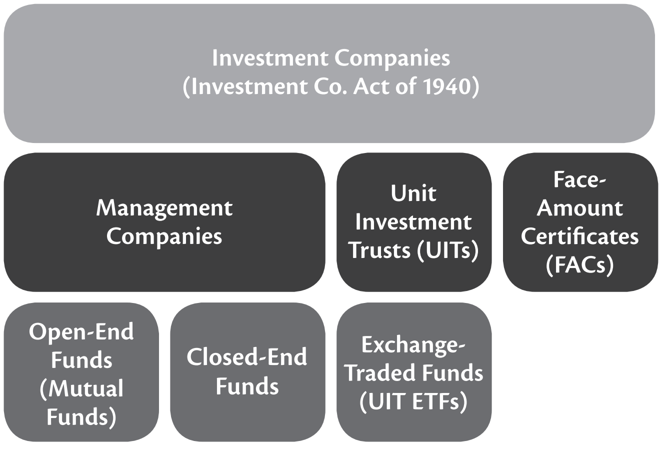
Investment company securities are collections of diverse pools of securities that are selected and managed by professionals. They combine multiple assets into a single investment opportunity that can be purchased by retail investors, giving them the chance for significant diversification with a smaller investment. The professional management of these investments is appealing to individuals who lack either the aptitude or desire to select and actively manage a portfolio of securities. By owning more than one security, investors assume less risk than by owning individual securities within the pool.

Investment companies are like corporations in that they raise capital through selling shares to the public. In this process, their shares are subject to the same registration and disclosure requirements imposed by the Securities Act of 1933 as other corporate securities.

According to the **Investment Company Act of 1940**, or **1940 Act**, which regulates these entities, three broad categories of investment companies exist:

1. Face-amount certificate companies
2. Unit investment trusts (UITs), and
3. Management companies (which include both closed-end funds and open-end funds)

Face-amount certificates are a type of investment company that issues debt securities, backed by interest on real property and securities. Because very few still exist today, they are not important for the exam. Instead, this chapter will focus on the other types of investment companies and their shares. For context, the table below details the investment companies that will be discussed:



Chapter Goals

- Be able to describe the unique characteristics of each type of investment company security.
- Understand which type of fund might be appropriate for an investor based on their investment objectives as well as the associated risks.
- Compare the relationship between the net asset value, sales charge, and public offering price for mutual funds.
- Learn the different ways that mutual fund investors can get discounts off the sales charge.
- Describe how each type of investment security trades and its portfolio management structure.

Key Terms

- **Management investment company**—An investment company, such as a mutual fund or closed-end fund, that hires an investment adviser to actively select and manage a securities portfolio to achieve a stated investment goal
- **Mutual fund**—A type of management investment company that makes a continuous offering of brand new, redeemable shares to investors, also referred to as an **open-end fund**
- **Redeemable**—A type of investment company security, such as a mutual fund and a unit investment trust, for which there is no secondary market or investor-to-investor trading; instead the security is directly bought from and sold back to the issuer.
- **Net asset value (NAV)**—The value of a mutual fund and the basis of what investors pay, calculated as the total assets of the fund minus its total liabilities
- **Forward pricing**—The method by which mutual funds calculate the purchase and redemption prices, which are based on the next NAV calculation after the order is received
- **Breakpoints**—Offer mutual fund investors discounts off the sales charge based on the dollar amount invested
- **Closed-end fund**—A type of investment company that issues exchange-traded shares that reflect actively managed portfolios
- **Unit investment trust (UIT)**—A type of investment company that issues redeemable securities representing an undivided interest in a fixed trust, in which there is no active management of the portfolio
- **Exchange-traded fund (ETF)**—An exchange-traded investment company that is designed to closely track the performance of a specific benchmark, sector, or index

4.1 Management Investment Companies

Management investment companies are the most common type of investment company. Management companies actively manage a portfolio of securities to achieve a stated investment objective. The management company will hire a professional manager, such as an **investment adviser**, whose role is to select the securities and manage the portfolio. These individuals and firms are regulated under the **Investment Advisers Act of 1940** and generally must be registered with and regulated by the SEC.

There are two types of management companies, closed-end funds and open-end funds.

4.2 Mutual Funds

Open-end investment company securities, which are also known as **mutual funds**, are the most popular type of investment company security.

Each fund must have a clearly defined investment objective. This investment objective can only be changed by a majority vote of the fund's outstanding shares.

Mutual funds are a popular choice among investors because of the features they offer. Major selling points include:

- **Professional management**—Fund managers do the research, select the securities, and monitor the performance.
- **Diversification**—Because they invest in a range of companies and industries, mutual funds keep investors from putting all of their eggs in one basket. This helps spread risk and protect the shareholders from the failure of a single company.
- **Affordability**—Most mutual funds can be purchased for a relatively low dollar amount for both initial investment and subsequent purchases.
- **Liquidity**—Mutual fund shares can be easily redeemed at any time for the current net asset value (NAV) plus any redemption fees. Shareholders will receive the price that is next calculated when they make a redemption request.

4.2.1 Information Provided to Mutual Fund Investors

Aside from being subject to the 1940 Act, broker-dealers and their representatives who sell mutual fund shares are also subject to the rules of the Securities Exchange Act of 1934.

The SEC establishes mutual fund financial disclosure requirements and sets limits on the fees that funds are allowed to charge. It does not, however, directly supervise the investment decisions or activities of these companies or judge the merits of their investments.

All investors that purchase mutual fund shares must receive a **prospectus** that contains certain disclosures. The SEC allows an investment company to deliver a **summary prospectus** to customers, which is a condensed version of the longer, more detailed prospectus. The summary prospectus reviews critical information in plain English to help make it easy for investors to compare funds. Included are seven key items:

- The fund's investment objectives
- A fee table
- Principal investment strategies, risk, and performance history

- The names of the fund's advisers and portfolio managers
- Information about purchasing and selling fund shares
- Tax information, and
- Compensation paid to financial intermediaries for selling the fund to investors

For comparison, a complete prospectus could be about 50 pages whereas a summary prospectus is usually 10–12 pages.

If a summary prospectus is delivered, the investment company must also make a full prospectus and any supplemental fund information available upon request in either written or electronic form. Prospectuses must be kept current and updated annually.

> ***Knopman Note:*** **The SEC allows a mutual fund to deliver a summary prospectus to shareholders prior to or at the time of sale. It is a compilation of highlights from the longer prospectus. A summary prospectus includes the fund's investment objectives, fee structure, and other pertinent information.**

In addition to a prospectus and summary prospectus, mutual funds must provide shareholders with semiannual financial reports. These reports must include a balance sheet, an income statement, and a snapshot of the mutual fund's portfolio.

> ***Knopman Note:*** **Financial reports must be sent to mutual fund shareholders semiannually.**

4.2.2 Structure of a Mutual Fund

Unlike normal corporations, mutual funds have no employees. They rely on third parties or service providers that are either affiliate organizations or independent contractors to invest the fund's assets and carry out the necessary business activities.

4.2.2.1 Board of Directors

All mutual funds are required by law to have a board of directors. The board oversees the management and operations of the fund on behalf of the fund's shareholders, but it is not involved in day-to-day management activities.

The 1940 Act generally requires that the board be elected by the fund's shareholders. It also requires that at least 40% of the directors be independent, meaning they do not have a significant business relationship with the fund's adviser, principal underwriter (distributor), or affiliates. The independent directors serve as "independent watchdogs" over the management of the fund, providing objective guidance.

4.2.2.2 Investment Adviser

The board of directors hires an **investment adviser** to take responsibility for the following:

- Invest the cash and securities held in the fund's portfolio
- Implement the objectives outlined by the board, and
- Manage day-to-day trading of the portfolio

The investment adviser earns an annual **management fee**. This fee is typically a percentage of the fund's net asset value. The investment adviser's contract is approved annually by the board of directors.

4.2.2.3 Custodian

The **custodian** is an institution that acts as the caretaker of the fund's securities. It holds in safekeeping all of the securities purchased by the investment company for its portfolio.

4.2.2.4 Transfer Agent

Mutual funds contract a **transfer agent** to handle transactions with customers. The transfer agent's responsibilities include the following:

- Issuing, redeeming, and cancelling fund shares
- Handling the distribution of dividend and capital gains to shareholders, and
- Sending out trade confirmations when shares are purchased or sold

The custodian and transfer agent are often the same entity. The mutual fund compensates both the custodian and transfer agent with a fee for services rendered.

> ***Knopman Note:*** **A transfer agent is responsible for issuing and cancelling certificates and processing investor mailings, while a custodian is a bank or trust company responsible for safekeeping a fund's assets and securities.**

4.2.2.5 Sponsor

The fund contracts a **sponsor**, also called a **distributor** or an **underwriter**, to sell its shares. The sponsor has an annually renewable written contract with the mutual fund company that permits it to buy shares from the fund at **net asset value**. Net asset value is the value of the fund's assets, minus all of the fund's liabilities, divided by the number of shares. In practice, investors do not make much of a distinction between the mutual fund itself and its sponsors. For example, Fidelity Investments is the sponsor of hundreds of mutual funds.

The sponsor then resells the fund shares to the public at the net asset value plus a **sales charge**. This total is called the **public offering price (POP)**. The sale to the public either takes place directly through the sponsor's sales force, or via outside broker-dealers. If the sponsor distributes shares through dealers, the dealers purchase shares from the sponsor at a discount to the public offering price and fill their customers' orders at the public offering price. Broker-dealers that distribute a mutual fund's shares must have a written selling agreement with the sponsor. This agreement gives them the contractual right to purchase shares at a price below the public offering price for resale.

Pop Quiz 1 *(Chapter 4)*

Which of the following responsibilities are carried out by a mutual fund's investment adviser?

I. Managing day-to-day trading in the portfolio
II. Sending out trade confirmations when shares are purchased
III. Investing cash held in the fund's portfolios
IV. Acting as caretaker for the fund's securities

A. I and II
B. I and III
C. II and III
D. I and IV

Answers to chapter 4 pop quizzes begin on page 130

4.2.3 Trading Restrictions on Mutual Funds

The SEC restricts certain fund investment and sales activities for mutual funds. Mutual funds are generally prohibited from engaging in the following activities:

- Selling securities short
- Buying securities on margin (meaning with borrowed funds), and
- Participating in joint investment or trading accounts

Note that mutual funds are limited to the issuance of a single type of equity shares. They can issue common shares only, not senior securities like preferred stock or bonds.

Knopman Note: **Mutual funds cannot sell stock short or buy securities on margin.**

4.2.4 Types of Mutual Funds by Investment Objective

The fund manager selects securities for the fund's portfolio and conducts trading practices to meet the fund's stated investment objective. The investment objective helps an investor determine whether a fund is a good fit for the investor's overall portfolio.

In general, mutual funds offer three ways for investors to earn money:

- **Dividend payments**—A mutual fund may earn income from dividends on the stock or interest on the bonds that it holds in its portfolio. The fund distributes this income less fund expenses to shareholders.
- **Capital gains distributions**—The value of the securities in a fund may rise over time. When a fund sells a security that appreciated, the fund has a capital gain. At the end of the year, the fund distributes these capital gains, minus any capital losses, to investors.
- **Net asset value (NAV) increases**—When the market value of a fund's portfolio increases above the fund's expenses, the value of the fund and each share of the

fund increases. The higher NAV reflects growth in the value of an investor's shares. Investors who then choose to liquidate their shares will do so at a profit.

> ***Knopman Note:* In a mutual fund, investors pay tax on the net investment income, which is the total profit earned. This includes any dividends, interest income, and net capital gains (capital gains minus capital losses).**

4.2.4.1 Mutual Fund Categories

Mutual funds are organized into categories by asset class (stocks, bonds, and cash) and further categorized by style, objective, or strategy. For example, there are money market mutual funds, stock mutual funds, and bond mutual funds. Stock and bond funds, as primary fund types, have numerous sub-categories that further describe the investment style of the fund. Knowledge of these fund categories helps mutual fund investors choose the best funds for their particular goals and needs.

There are two main types of mutual funds: **actively managed funds** and **index funds**. In an actively managed fund, a fund seeks to exceed the average returns of the market through security selection and trading activity. Index mutual funds are passively managed and operate with limited trading activity. These will be discussed later in this section.

Most actively managed mutual funds fall into one of four main categories:

- Money market funds
- Stock funds
- Bond funds, and
- Asset allocation funds

> ***Knopman Note:* When determining an appropriate mutual fund investment, the fund's size is less important than its investment objectives, fees, or investment policies. Generally, the customer's investment objectives are the primary consideration.**

4.2.4.2 Money Market Funds

Money market funds are considered the safest and most stable of all the mutual fund types because the 1940 Act restricts their investment choices to high-quality, highly liquid, short-term debt investments. These include debt instruments with remaining maturities of not more than 13 months, such as Treasury bills, commercial paper, and negotiable CDs. Because of their liquidity, they are considered **cash equivalent funds**.

Money market funds aspire to keep their net asset value (NAV), or the value of each share, at a constant $1 per share. However, this stable value is not guaranteed: In unusual circumstances, the NAV may fall below $1 if the fund's investments perform poorly, which is referred to as **breaking the buck**. Investors use these funds as a place to "park" short-term dollars, with the expectation that they will receive their principal back plus some earnings when they liquidate their investments.

> ***Knopman Note:* Although money market funds attempt to maintain a stable NAV of $1 per share, the price can fluctuate above or below that amount.**

Money market funds are typically **no-load**, meaning the investor does not pay a sales charge to purchase or redeem the shares.

Money market funds are suitable for investors that require safety, stability, and a high degree of liquidity. They may not be appropriate for investors that need to keep pace with inflation, as the returns of money market funds are relatively low. They are frequently used as a vehicle for keeping funds highly liquid so they can be accessed as needed for another investment opportunity or an immediate cash need, for example, the purchase of a home.

4.2.4.3 Stock Funds

A **stock fund** (i.e., **equity fund)** is a mutual fund that invests in stocks of companies that align with its investment objective. The goal of most equity funds is long-term growth through capital gains, although income from dividends is also available through stock fund investments.

Categorization by Capitalization

One way of categorizing stock funds is by the size or market capitalization of the companies they invest in.

- **Large-cap stock funds** invest in stocks of the largest corporations with market capitalizations often exceeding $10 billion, such as Wal-Mart, GE, Pfizer, Apple, and Microsoft. Typically, large-cap stocks are considered relatively stable and secure; they are often referred to as **blue chip stocks**.
- **Small-cap stock funds** invest in stocks of smaller corporations (generally between $750 million and $2 billion). Small-cap stocks present the possibility of greater capital appreciation but with greater risk.

Categorization by Investment Strategy

Stock funds are also categorized by the types of stocks in which they invest. Common categorizations include:

- **Growth stock funds** invest in stocks of companies that are expected to grow at a rate faster than the market average. Stocks of these companies rarely pay dividends, instead reinvesting corporate earnings for further research and development. These businesses tend to have greater upside potential, but also greater risk and volatility. Small-cap stocks, which often represent strong growth potential, are held within the portfolios of these funds.
- **Income stock funds** invest in dividend-paying companies, stressing steady income over appreciation. These funds might include preferred stocks, blue chip stocks, and utility stocks.
- **Growth and income funds**, also known as **combination funds**, include some stocks for growth and others that pay high dividends.

Other Categories of Stock Funds

International funds and **global stock funds** invest in stocks issued by companies located throughout the world. Global funds can also include stocks in US companies. Some of these funds invest in companies located in emerging-market countries, which can increase both risk and potential reward. Some stock funds invest in only a specific geographic region, such as Europe or the Pacific rim.

Rather than diversifying their holdings, **sector funds** or **specialty funds** concentrate their assets in a particular industry, such as technology or healthcare. These funds present more risk than funds with greater sector diversification because one year's top sector could crash the following year. They are most appropriate for investors who are interested in a particular industry but who want to spread risk among numerous companies within the sector.

Suitability of Stock Funds

Stock funds are most appropriate for investors seeking long-term growth through capital appreciation, although dividends and capital gains may also supply income for investors that have an income objective. Stock funds should be considered for investors that can tolerate the normal ups and downs of the stock market. They are an important core portfolio component for delivering growth that can help keep pace with inflation.

Preferred stock funds, utility stock funds, and blue chip stock funds help supply income because of their steady dividends. Like bond funds, these stock funds are often used to satisfy the needs of investors that specify a current income objective.

4.2.4.4 Bond Funds

Bond funds, also called **fixed-income funds**, are professionally managed portfolios that invest in corporate and government bonds for the purpose of providing income to investors. The income paid by the fund to investors as dividends represents interest earnings from the bonds held in the portfolio.

Categorization of Bond Funds

A bond fund's stated objective is generally focused on a particular sector, such as corporate or Treasury bonds, or a broad investment strategy category, such as investment-grade or high-yield.

Common categories of bond funds include:

- **US government bond funds** invest primarily in bonds issued by the US Treasury or federal government agencies, and thus offer low credit risk to investors. Because of their higher level of safety, their yields and total returns are lower than those of other bond funds.
- **Corporate bond funds** buy bonds issued by corporations ranging from large, well-established firms to small companies. The riskier choices may deliver higher yield but will also have greater volatility.
- **High-yield bond funds**, also known as **junk bond funds**, invest in untested companies as well as in bonds of well-known companies that have weakened

financially. They hold below investment-grade debt that has a higher potential of default on interest payments, resulting in higher yields.

- **Municipal bond funds**, also known as **tax-exempt bond funds**, invest in the bonds issued by municipalities. The income generated is free from federal income taxes, and may also be exempt from state and local taxes depending on the bond's origination and the investor's state of residence. These funds are most appropriate for high-net-worth investors in a high tax bracket.

> ***Knopman Note:*** **The dividend distributions to shareholders of municipal bond funds are tax-exempt because they represent the tax-free interest income. However, any capital gains distributions are taxable. Keep in mind that the tax benefits of munis only extend to the interest income, not to capital gains.**

Bond funds are also categorized by the time horizon of the bonds held in the portfolio, ranging from short-term (i.e., less than a year) to long-term (i.e., between 10 and 30 years). Funds with longer average maturities may experience the greatest volatility, or fluctuation in NAV. Like individual bonds, the value of a bond fund will move inversely with interest rates.

Longer-term bond funds are particularly vulnerable to changes in interest rates, but will provide higher yield. Short-term bond funds may be most appropriate for investors with low tolerance for changes in share value but who require income.

Suitability of Bond Funds

Normally bond funds are identified by whether they can satisfy a specific income need. They are often included in a portfolio to boost an investor's total return by providing steady income.

Though usually safer than stock funds, bond funds face their own risks, including default risk, interest rate risk, and reinvestment rate risk.

4.2.4.5 Asset Allocation Funds

Asset allocation funds invest in a combination of asset classes, including stocks for growth, bonds for income, and cash or cash equivalents for safety and liquidity, providing portfolio diversification. A portfolio manager is typically given some discretion to adjust the mix as market conditions change. The mixture of securities and allocations will also differ by how aggressive the fund is in generating growth and returns. An example of an asset allocation fund is below.

4.2.4.6 Index Funds

Index funds are the only type of mutual fund that is not actively managed. Instead, the fund purchases most, or all, of the securities contained in a specific index, such as the S&P 500, with the intention of delivering the same performance as that index. Once the portfolio is assembled, it is not actively managed. Although these funds will not beat the market in performance, the risk of underperformance relative to the benchmark index tends to be low.

Because there is little trading activity, index funds cost less for investors than other funds, as they have relatively low management fees. Additionally, they are generally more tax-efficient because less of their trading activity generates taxable capital gains.

> ***Knopman Note:*** **Index funds are most appropriate for investors seeking to invest in mutual funds that charge lower fees.**

Pop Quiz 2 *(Chapter 4)*

Different investors are talking below, explaining their needs in a mutual fund. Match each investor with the type of fund that is most appropriate for them. The choices are **money market fund**, **bond fund**, **asset allocation fund**, **index fund**, and **sector fund**.

1. Ed: "I know a little something about energy. I need a fund that focuses on the best oil and gas drilling, storage, and transportation companies—nothing else. In my mind, that's where the action is." Fund type: ____________________
2. Paula: "I need a place to park cash with no surprises and very little risk. This is money I expect to spend on my wedding in a year or two, and I can't afford to lose it." Fund type: ____________________
3. Ronnie: "I want a fund that is well diversified among different types of investments, with a professional making the decisions on what asset classes are most attractive in various market environments. I don't know how to do that." Fund type: ____________________
4. Scott: "Give me the average performance of the Dow Jones Industrial Average at low cost and I'll be a happy camper." Fund type: ____________________
5. Jill: "I am retiring next year and the money I will be getting from Social Security isn't enough to pay the bills. I want a fund in which I can earn a steady 4%–5% interest to increase my income, without high risk." Fund type: ____________________

4.2.5 Mutual Fund Share Value

Mutual fund shares are offered through **continuous primary offerings**. Shares are generally available for purchase without limit, meaning the fund will create brand new shares for any customer who wants to invest. Investors in mutual funds have an undivided interest in the fund's portfolio, which means that their ownership interest represents a proportionate share of each and every portfolio security. Persons who purchase an interest own shares of the mutual fund, and each share fluctuates in value based on changes in the market price of all the securities that comprise the portfolio.

The value of shares is calculated from the fund's **net asset value (NAV)**. As mentioned, the NAV of a mutual fund is equal to the company's total assets minus its total liabilities. For example, if an investment company has total assets of $100 million and total liabilities of $20 million, the investment company's NAV will be $80 million. Because an investment company's assets and liabilities change daily based on market fluctuation, the NAV also changes daily. NAV might be $80 million one day, $100 million the next, and $90 million the day after.

Open-end funds must calculate their NAV at least once every business day, typically after the major US exchanges close. The NAV of a single share is determined by dividing the fund's NAV by the number of shares outstanding. For example, if a mutual fund has an NAV of $100 million, and investors own 10 million of the fund's shares, the fund's per-share NAV will be $10. Most mutual fund valuations are expressed on an NAV-per-share basis.

The net asset value of the fund's shares does not change when new shares are sold. The additional cash that flows into the fund is offset by the new shares that have been issued. Likewise, the NAV per share does not change when shares are redeemed. The cash that flows out of the fund is offset by there being a smaller number of shares. However, if a mutual fund pays out a distribution to investors (e.g., a dividend), NAV will decrease, as the fund is distributing cash to shareholders.

> ***Knopman Note:*** **When a mutual fund pays a distribution (e.g., a dividend), the NAV decreases by the amount of the distribution.**

4.2.5.1 Purchase and Redemption of Mutual Funds

Investors that purchase mutual funds pay the NAV per share plus any sales charge the fund imposes. The amount paid by investors when purchasing shares is known as the **public offering price (POP)**, which is calculated as:

Public Offering Price = Net Asset Value + Sales Charge

When shareholders wish to sell their shares, they are redeemed by the fund. In other words, mutual funds register a continuous offering of **redeemable shares**, meaning there is no secondary market for mutual funds. If an investor wants to purchase shares, the fund will create brand new shares for him to buy, and if an investor wants to sell shares, they are sold to, or redeemed by, the issuing fund. Mutual fund shares cannot be sold to other investors in the secondary market.

The price that investors receive on redemption is the NAV per share less any fees, such as redemption fees or deferred sales charges. When fund shares are purchased or sold, the price that applies is the price as of the next NAV calculation. This is known as **forward pricing**.

> ***Knopman Note:*** **The price investors pay for mutual funds is based on the next NAV calculation after the order is received. It is not based on the prior day's closing price or the next day's opening price. For example, if on Monday a customer places an order to buy shares at 5:00 pm, which is after the market close, the price she would pay for the shares is based on Tuesday's closing price (which is the next time the NAV is calculated).**

Additionally, when an investor purchases mutual funds, the investor must put up 100% of the necessary cash. Mutual funds cannot be purchased on margin, i.e., with borrowed funds. However, once an investor has held shares of a mutual fund for at least 30 days, those shares have loan value, which means an investor can use the mutual fund shares as collateral to buy other securities on margin.

> ***Knopman Note:*** **Mutual fund shares are redeemable, meaning they are sold back to the fund. Therefore, they are not appropriate for an investor who values intraday trading, as there is no secondary market for them.**

4.2.5.2 Mutual Fund Sales Charges, Fees, and Expenses

When investors buy mutual fund shares, a sales charge, also called a **sales load**, generally applies. This fee compensates the sales person for the expertise required to select the appropriate fund for the customer. Funds may have a front-end, back-end, or level sales charge, depending on the type of share class purchased.

A mutual fund's sales charge is expressed as a percentage of the public offering price (POP).

> ***Knopman Note:*** **A mutual fund sales load is never expressed as a percentage of the net asset value. Sales charge is a percentage of the POP.**

Example

Fund XYZ has an NAV of $19 and a POP of $20.16. To calculate the dollar amount of the sales charge, use the following calculation:

Sales Charge = Public Offering Price – Net Asset Value

Sales Charge = $20.16 POP – $19 NAV

Sales Charge = $1.16

To calculate what percentage the sales charge is of the POP:

$$\textbf{Sales Charge \%} = \frac{\textbf{Public Offering Price – Net Asset Value}}{\textbf{Public Offering Price}}$$

$$\text{Sales Charge \%} = \frac{\$20.16 \text{ POP} - \$19 \text{ NAV}}{\$20.16 \text{ POP}}$$

Sales Charge % = 5.75%

The maximum front-end sales charge is 8.5% of the POP for funds that do not charge 12b-1 fees—**12b-1 fees** are annual fees that cover the mutual fund's marketing and distribution expenses. A fund can only charge the maximum sales charge if certain privileges are offered to shareholders, which will be discussed shortly.

> ***Knopman Note:*** **12b-1 fees cover the marketing and administrative expenses of the fund, but do not cover management fees or trading expenses.**

The maximum 12b-1 fees for all types of mutual fund shares is 0.75% of a fund's average net assets. Additionally, if a fund wants to advertise itself as a no-load fund, which means it does not charge a sales charge, it cannot charge 12b-1 fees of more than 0.25% of the average net assets. The 12b-1 fee must be originally approved and annually approved by both shareholders and the fund's board of directors.

Fees are an important consideration for investors when investing in any type of mutual fund, because they reduce the fund's total return. It is good practice to understand why fees are high or low relative to those of similar funds. Sometimes higher fees are justified because the funds produce higher returns; other times there is little justification.

The fund's fees can be compared through a calculation called the **expense ratio**, which must be prominently disclosed in the fund's prospectus. The expense ratio is calculated as:

$$\text{Expense Ratio} = \frac{\text{Management Fees + Operating Expenses}}{\text{Average Annual Net Assets}}$$

An expense ratio of 1% means that, each year, 1% of the fund's total assets will be used to cover expenses.

Actively managed funds generally have an expense ratio of 0.5%–1.0%, though some are higher. For index funds, the ratio is usually 0.25% or less.

> ***Knopman Note:*** **A fund's expense ratio would increase if its operating expenses were rising faster than the value of its investments.**

4.2.5.3 Fund Share Classes

Some mutual funds offer investors different types of shares, known as **share classes**. A multi-class structure offers investors the ability to select a fee and expense structure that is most appropriate for their investment goals and investment time horizons.

- **Class A shares** normally have **front-end sales charges** paid at the time of the initial purchase. They also tend to have a lower 12b-1 fee than other share classes. Class A shares offer **breakpoints**, which are discounts off the sales charge based on the dollar amount invested. Front-end loads may be beneficial for investors who intend to hold their shares for more than several years, as well as those making large purchases who want to benefit from breakpoints.
- **Class B shares** have a **back-end** or a **contingent deferred sales charge (CDSC)** that is paid when investors redeem their shares within a specified number of years. Class B shares typically impose a 12b-1 fee that is higher than Class A shares. Additionally, Class B shares do not offer breakpoints. These shares are typically good for investors with little investment cash and a long investment horizon.

The table below shows a typical B-share CDSC schedule:

Year	1	2	3	4	5	6	7+
Charge	5%	4%	3%	3%	2%	1%	0

- **Class C shares** have a level-load sales charge. They typically have relatively high 12b-1 fees, other annual expenses, and either a front- or back-end sales load, thus these shares generally have the highest annual expense charges. They are designed for people who want to make short-term mutual fund investments. If the shares are held for a longer term, the fees get higher. Similar to Class B shares, they do not offer breakpoints.
- **No-load funds** are mutual funds that are sold at their NAV, without any sales charge added. In other words, the NAV and the POP are the same. No-load funds are usually purchased directly from the fund management company rather than from an outside broker or distributor. Although on the surface no-load funds seem like the "better deal" for mutual investors, many people benefit from the advice of an outside broker in helping to determine the most suitable fund for their investment objectives. However, a fund with high costs must perform better than a low-cost fund to generate the same returns for a shareholder. Index funds are a good example of funds that are no-load.

***Knopman Note:* If a customer purchases a mutual fund where the NAV equals the purchase price, it is a no-load fund.**

***Knopman Note:* All mutual fund share classes have 12b-1 fees, but Class A shares typically have the lowest 12b-1 fees and are part of the only share class that benefits from breakpoints.**

Pop Quiz 3 *(Chapter 4)*

Check all the statements that are TRUE about mutual funds.

______ Mutual fund shares are offered to the public once or twice per year.

______ Net asset value (NAV) is always expressed per share.

______ When a mutual fund pays a distribution, NAV decreases.

______ The public offering price of mutual fund shares is always NAV.

______ A contingent deferred sales charge (CDSC) is paid by the investor annually.

______ Investors can avoid CDSC by investing enough to qualify for breakpoints.

4.2.5.4 Mutual Fund Pricing Features

As previously noted, mutual funds may charge a maximum sales charge of 8.5%. However, to qualify for this maximum sales charge, mutual funds must offer three features, which allow for the reduction of sales charges under certain circumstances. The three features are breakpoints, rights of accumulation, and automatic reinvestment of dividends at NAV. Funds that do not offer these three features can charge a maximum sales charge of 6.25%, though competitive forces often drive these sales charges lower.

4.2.5.5 Breakpoints

Breakpoints allow investors to qualify for discounts off the sales charge based on the amount of money invested within a mutual fund. The fund discloses its breakpoint schedule in its prospectus. The chart below illustrates a typical breakpoint chart:

Amount Invested	Sales Charge
Under $50,000	5.75%
$50, 000 to $99,999	4.50%
$100,000 to $249,999	3.50%
$250,000 to $499,999	2.50%

For example, using the breakpoint schedule above, a customer investing $350,000 would have a 2.5% sales charge on the entire purchase. Note that breakpoints are not incremental and instead apply to the entire purchase.

Registered representatives should always help customers understand the advantages of breakpoint discounts. In fact, FINRA prohibits representatives from attempting to earn a higher commission by encouraging the sale of mutual fund shares at an amount just below the point where a sales charge is reduced. This prohibited practice is termed a **breakpoint sale**.

Additionally, instead of investing all the cash at once to achieve a breakpoint, an investor can sign a **letter of intent (LOI)**. A letter of intent (LOI) is a type of contract offered by a mutual fund in which an investor agrees in writing to purchase a specified amount of mutual fund shares over the next 13-month period. The sales charge applied on each purchase is based on the promised total investment.

For example, using the sample breakpoint table above, assume an investor plans to invest $125,000 in a mutual fund over the next 13 months, with an initial investment of $10,000 today. The sales charge on the first purchase and on all subsequent purchases is 3.50%, instead of 5.75%.

Investors can also backdate a letter of intent for a period of 90 days to reduce the sales charge on a prior purchase. The same LOI can also be applied to reduce the sales charges of purchases for accounts of spouses and minor children.

If the investor does not complete the purchase specified within the LOI, the otherwise applicable sales charge will apply. The fund holds the additional shares purchased due to the reduced sales charge in an escrow account, and will liquidate these shares to pay the higher sales charge. Appreciation in share value and reinvestment of dividends and capital gains do not count toward completion of an LOI.

> ***Knopman Note:*** **A letter of intent is good for up to 13 months and can be backdated 90 days.**

Pop Quiz 4 *(Chapter 4)*

Match each of the following terms with the appropriate description.

A. NAV
B. Forward pricing
C. Breakpoint
D. Redemption

_____ The act of tendering shares directly to the mutual fund to exit a position

_____ Investment amount required to earn a sales charge discount

_____ Method for determining the value of a mutual fund share redemption

_____ Total assets of a mutual fund (per share) minus total liabilities of the fund (per share)

4.2.5.6 Rights of Accumulation

Rights of accumulation offer investors an additional opportunity to receive a reduced sales charge based on the amount of money invested in one mutual fund. It's important to note that, under rights of accumulation, the sales charge discount is only available on subsequent purchases. It does not apply to initial transactions.

Example

If a customer has already invested $23,500 in a mutual fund that has a breakpoint at $25,000, and then chooses to invest another $2,000, the customer would receive the lower sales charge on the additional $2,000 investment, because the total position now exceeds $25,000.

Additionally, under rights of accumulation, investors can use share appreciation and reinvested dividends to compute the value to which new purchases are added when the sales charge discount is determined; also, there are no time limits.

Example

Ten years ago, a customer invested $13,000 into a mutual fund. Over the 10-year period, the customer's initial investment appreciated to $23,500. Assuming the fund has a breakpoint of $25,000 and the customer chooses to invest another $2,000, the customer would receive the lower sales charge on the additional $2,000 investment.

Breakpoint discounts can also apply to **combination purchases**. This means that customers can aggregate their investments within the same mutual fund group or family of funds for the purpose of reducing the sales charge. For example, an investor can combine investments made in three separate Fidelity Mutual Funds (e.g., Fidelity growth fund, Fidelity income fund, and Fidelity small-cap fund) to meet a breakpoint and receive a reduced sales charge.

Additionally, spouses and minor children can combine their investments into the same fund to receive a reduced sales charge.

4.2.5.7 Fund Reinvestments at NAV

Mutual funds make periodic distributions to their shareholders of dividends, interest, and capital gains. Shareholders may elect to receive these distributions in cash, or they may reinvest them in the fund for the purchase of additional shares. When the fund allows these reinvestments at the NAV, the investor pays no sales charge on that new purchase. This feature is referred to as **automatic reinvestment privileges** and must be offered to investors along with breakpoints and rights of accumulation in order for the fund to be eligible to charge the maximum sales load.

> ***Knopman Note:*** **Although investors can automatically reinvest dividends at the NAV, the investor is still required to pay tax on the dividend at the time it is accrued. Described differently, automatic reinvestment does not avoid tax.**

> ***Knopman Note:*** **Any dividends reinvested by an investor would increase their cost basis, as the investor will have already paid tax on that income. For example, if an investor's original cost basis in a mutual fund is $1,000 and the investor receives $200 in dividends that they reinvest into the fund, their cost basis would be adjusted upward to $1,200.**

4.2.6 Share Purchase and Redemption Violations

When advising customers on mutual fund strategies, registered representatives must be aware of certain prohibited practices. These include:

- **Late trading** occurs when purchase or redemption orders are received by the mutual fund after the close of business and are filled at that day's price rather than at the next day's price. This is prohibited, as it could provide an information advantage for the investor receiving the shares because after-close news could be considered. In most cases, NAVs are calculated at 4:00 pm, ET, which means that all orders received after that time must be filled based on the NAV calculated on the next business day, as required by forward pricing.
- **Switching** is when a registered representative moves a customer from one mutual fund to another fund that has a similar investment objective for no legitimate investment purpose. Sometimes referred to as **churning**, this practice is a violation, as it creates additional transaction costs as well as potential tax liabilities for the investor. For example, it would be considered inappropriate to recommend an investor liquidate a Fidelity growth fund and move the proceeds into a Janus growth fund with almost identical investment objectives.

- **Selling dividends** is a prohibited sales practice where a registered representative sells a mutual fund to an investor right before the fund pays out a dividend. This is a violation because the dividend distribution will decrease the NAV of the recently purchased shares and result in a tax event for the customer. Instead, the customer is better off investing into the fund at the lower NAV after the dividend has been paid to avoid the *immediate* tax liability.

Example

A mutual fund has an NAV of $10 and is about to pay a $1 dividend. Once the dividend is paid, the NAV will drop by the amount of the dividend—to $9. If investors purchase the shares right before the dividend is paid, they will pay $10 to purchase the shares, and when the dividend is paid they will receive the $1 dividend, and the value of their shares will decrease to $9. Because they will be required to pay tax on the $1 dividend, investors are better off avoiding the tax liability by investing at the lower NAV of $9 after the dividend distribution has been made. The investor will then keep the $1 in his pocket without paying any tax.

Progress Check

1. Another name for an open-end investment company is:
   - A. unit investment trust.
   - B. mutual fund.
   - C. exchange-traded fund.
   - D. face amount certificate.

2. On which exchange or secondary market can investors sell shares of a mutual fund?
   - A. Nasdaq
   - B. OTC Bulletin Board
   - C. All-electronic exchanges
   - D. None

3. Which of the following entities manages the assets of a mutual fund for a fee?
   - A. Sponsor
   - B. Custodian
   - C. Underwriter
   - D. Investment adviser

4. Which one of the following activities may a mutual fund carry out?
   - A. Redeem shares directly from investors
   - B. Buy securities on margin
   - C. Sell securities short
   - D. Participate in a joint investment account

5. Carlos is investing $20,000 in a money market mutual fund. How many shares will this buy?
   - A. 200
   - B. 2,000
   - C. 20,000
   - D. It depends on the net asset value of the fund, which fluctuates daily.

6. Which type of mutual fund is *not* actively managed?
   - A. Municipal bond fund
   - B. High-yield bond fund
   - C. Balanced fund
   - D. Index fund

7. Cynthia is interested in buying shares of ABC Growth Fund, a mutual fund. She does her homework and sees that the fund has a net asset value (NAV) of $12.37. Two weeks later, she sees that the NAV has declined to $11.12. What would account for such a decline?
   - A. Poor performance
   - B. Investors redeeming shares
   - C. High fees
   - D. Lack of liquidity

8. Which cost of owning a mutual fund is only paid once?
   - A. Management fees
   - B. 12b-1 fees
   - C. Sales charge
   - D. Contingent deferred sales charge (CDSC)

Progress Check—Solutions

1. (**B**) Mutual funds are open-end investment companies. They freely create and redeem shares to meet market demand. Open-end means there is no limit on the number of shares they can create.
2. (**D**) There is no secondary market or exchange-trading of mutual fund shares. Rather, shares must be bought directly from and sold back to the issuer of the fund.
3. (**D**) In choosing a mutual fund, the investment adviser is the most important entity to evaluate. The adviser is responsible for investing cash and securities, day-to-day trading, and setting overall investment strategy.
4. (**A**) The SEC prohibits mutual funds from selling securities short, buying securities on margin (with borrowed funds), or participating in joint investment or trading accounts.
5. (**C**) Money market mutual funds are expected to maintain a constant net asset value of $1 per share. Failing to maintain this stable price is a rare and negative event for a fund. It is called breaking the buck.
6. (**D**) Index funds are a type of mutual fund that is not actively managed, as it instead purchases most (or all) of the securities held in a popular index, such as the Standard & Poor's 500 Index. Index funds aspire to deliver performance in line with the index. They generally have low management fees.
7. (**A**) In mutual funds, the main driver of change in NAV is the performance of securities held in the fund portfolio. NAV changes each day to reflect the net assets of the fund divided by shares outstanding. Changes in the number of shares outstanding do not impact NAV.
8. (**C**) A sales charge is paid once, at the time of purchase. Management fees and 12b-1 fees are continuous over the duration of a fund holding. CDSC can be continuous also, but it gradually declines and phases out over a period of several years.

4.3 Closed-End Funds

As discussed, there are two types of management companies, open-end funds (aka mutual funds) and closed-end funds. Our discussion will now focus on the features of **closed-end funds (CEFs)**. It is important to understand both the differences and similarities between these management company funds.

4.3.1 Similarities to Mutual Funds

Closed-end funds are professionally managed investment companies that offer investors many of the same advantages as mutual funds, including:

- Professional management
- Diversification
- Affordability
- Liquidity

Similar to mutual funds, closed-end funds make distributions to investors, including capital gains and dividends.

4.3.2 Unique Features of Closed-End Funds

Although there are similarities between mutual funds and closed-end funds, it is extremely important to understand the differences between them.

4.3.2.1 Issuance of Closed-End Fund Shares

As discussed, mutual funds have a constantly changing pool of capital. They experience constant inflows of cash through their continuous primary offerings of new shares. They also have constant outflows of cash due to their obligation to redeem shares within seven days of request.

Closed-end funds, however, are comprised of a stable pool of capital. The number of shares available and the total invested capital in a closed-end fund is fixed, unless the fund chooses to make an additional public offering in the future. The name "closed-end fund" is derived from the fact that both the capital structure and number of shares are generally fixed.

Closed-end funds originally issue shares through an initial public offering, much like any other company that goes public. They sell shares to raise capital, which is then invested on behalf of investors by the fund's manager. Following this IPO, the shares are traded in the secondary market on an exchange between investors. Unlike with mutual funds, there is investor-to-investor trading of closed-end fund shares, and the shares are not redeemed by the fund.

Because closed-end funds do not redeem shares, they do not need to maintain ready liquidity for shareholders that want to sell their shares back to the fund. This is advantageous because closed-end fund managers are not forced to sell securities in a declining market to meet redemptions.

4.3.2.2 Pricing of Closed-End Funds

Similar to mutual funds, closed-end funds calculate a net asset value. However, unlike mutual funds, closed-end funds are not required to make the NAV calculation daily, as the price at which shares are bought and sold by investors is set by the market forces of supply and demand. Investor perceptions about the market cause the shares of closed-end funds to fluctuate away from the NAV in secondary-market trading.

> ***Knopman Note:*** **Even though closed-end funds have an NAV, they can trade at a price either above or below the NAV based on the supply and demand of the shares.**

Example 1

Fund XYZ has an NAV of $10 per share and a POP of $9 per share. Fund XYZ is a closed-end fund because closed-end funds can trade at an offer price either above or below the NAV. Fund XYZ cannot be a mutual fund, as mutual funds are offered at the NAV plus a potential sales charge.

Example 2

Fund XYZ has an NAV of $10 per share and a POP of $11 per share. Fund XYZ can be either a closed-end fund or a mutual fund, as both can trade above the NAV.

Example 3

Fund XYZ has an NAV of $10 per share and a POP of $10 per share. Fund XYZ can be either a closed-end fund or a mutual fund, as both can trade at the NAV. A mutual fund will be offered at the NAV if it is a no-load fund.

4.3.2.3 Purchasing Closed-End Fund Shares

Because closed-end funds are exchange-traded products, a commission is paid for the services provided in both purchase and sales transactions. Unlike mutual funds, closed-end funds do not charge a sales charge or 12b-1 fees.

Closed-end funds do carry an annual **expense ratio**. This charge is reported in the fund's prospectus and annual report. These fees are very important to understand, as they reduce the investment performance achieved by the fund.

Additionally, closed-end fund shares, unlike mutual funds, can be purchased on margin, meaning with borrowed funds.

> ***Knopman Note:*** **Commissions are paid for closed-end funds, but not for mutual funds.**

4.3.2.4 Exchange Trading of Closed-End Shares

The procedures for buying and selling closed-end fund shares are the same as those for stocks. The current price of the shares fluctuates throughout the day as determined by market forces, and the shares can trade at a premium or at a discount from the NAV, as previously discussed. Investors can effect transactions by submitting market orders for immediate execution or setting price parameters through limit or stop orders, which will be discussed in a later chapter. The process, from order entry to execution, can take just minutes. This is a major difference between closed-end fund shares and mutual fund shares: while closed-end fund shares trade throughout the day, all orders in mutual fund shares are placed at the close of business, based on the day's closing net asset value.

> ***Knopman Note:*** **Shares of a closed-end fund are appropriate for an investor who values intraday trading.**

4.3.2.5 Raising Capital for Closed-End Funds

Another significant difference between the two types of funds is the raising of capital. Closed-end funds are permitted to issue **senior securities**, such as preferred stock or bonds, as well as borrow money to leverage and increase their investment positions. This additional flexibility gives portfolio managers of closed-end funds the potential to enhance yield and provide investors with higher returns. In comparison, mutual funds can only issue common shares, not senior securities, and they cannot use leverage.

4.3.2.6 Comparison of Open-End and Closed-End Funds

The chart below summarizes some of the key differences between open-end and closed-end funds.

Feature	Open-End Fund	Closed-End Fund
Number of Outstanding Shares	Constantly changing	Fixed number
Securities Issued	Common shares only	Common, preferred, and debt securities
Share Pricing	Forward pricing	Daily and continuous market pricing
Purchasing Shares	At POP from the fund	At NAV or at a premium or discount to NAV on an exchange based on supply and demand
Sale of Shares	At NAV; redeemed by the fund	At NAV or at a premium or discount to NAV on an exchange based on supply and demand
Share Class	A, B, and C shares are standard	Single-share class
Expenses	Sales charges and 12b-1 charges may apply	Commissions for purchase or sale; no 12b-1 fees
Short-Selling	Not allowed	Permitted
Use of Margin	Not allowed	May be purchased on margin

4.4 Unit Investment Trusts

Unit investment trusts (UITs) are another investment company regulated under the 1940 Act. One of the main characteristics that distinguishes UITs from open-end and closed-end funds is that UITs are not actively managed. This feature, as well as the other attributes of UITs, will be discussed in this section.

4.4.1 Structure of a UIT

The creation of a UIT involves the drafting of the **trust indenture**, by the fund's sponsor, which initiates the formation of the trust. In the indenture, the sponsor names a trustee to handle the administrative duties. These include responsibility for custody of the securities owned by the UIT; recordkeeping for the investors; and accounting and tax reporting for the portfolio. UITs differ from other investment companies in that they do not have a board of directors, corporate officers, or investment advisers.

4.4.1.1 Portfolio Composition

Similar to management investment companies, UITs will have an established investment objective, and the securities they purchase are chosen to accomplish that objective. For example, the sponsor can build various types of fixed-income UITs, such as portfolios consisting of corporate, international, agency, and municipal bonds, as well as equity UITs, which can include a wide range of stocks.

Once securities are selected and assembled, the UIT portfolios are supervised for the life of the trust and units are sold through brokerage firms to investors.

Although the securities within a UIT are generally not traded, the sponsor may remove a security from the trust or purchase new securities under limited circumstances. These situations are outlined in the prospectus and include circumstances such as the following:

- A severe decline in credit rating
- Bankruptcy
- Fraud, or
- A requirement to sell securities due to a merger or acquisition

An advantage of a fixed portfolio is that it allows investors to know what securities are held within a UIT through the life of the trust. There will be no "style drift" in the portfolio strategy. Investors will find the exact portfolio securities held by the UIT listed in its prospectus.

The other benefit of this fixed portfolio is that UITs are often substantially cheaper than mutual fund shares because no fee for active management exists.

> ***Knopman Note:* UIT portfolios are not actively traded; they are supervised.**

4.4.1.2 UIT Termination

Unlike a mutual fund, a UIT is created for a specific length of time and has a termination date that is established at the time of creation. The termination date is related to the securities that are held in the trust. In the case of a UIT investing in bonds, for example, the termination date may be determined by the maturity date of the bond investments, perhaps 20 to

30 years. UITs that invest in stocks may seek to capture capital appreciation over a period of a year or a few years.

The UIT is dissolved and is no longer active when it reaches its termination date. Any remaining portfolio securities are sold, and proceeds are distributed to investors.

4.4.2 Purchasing and Selling UIT Units

When a UIT is created, units of the trust are first sold to investors in an initial public offering. Representatives that sell new units in UITs are legally required to provide to prospective investors a prospectus, which highlights the fees, such as sales charges and certain operating expenses.

4.4.2.1 Redemption of Units

Although UITs are designed to be bought and held by their purchasers until the trust terminates, investors can sell their holdings back to the issuing investment company. Early redemptions of units will be paid based on the current underlying value of the holdings. Similar to mutual funds, UITs are priced at the end of each business day.

There is no guarantee that the amount an investor receives at redemption will equal what would have been received if the units were held to maturity. The redemption price may be more or less than the original purchase price.

Some UITs permit investors to exchange their holdings for a different UIT at a reduced sales charge. This flexibility may be attractive when an investor's investment objectives change.

Units of a new trust are only offered once, during the initial public offering. Investors that want to add to their UIT investment may be able to do so by obtaining additional units when there have been redemptions.

> ***Knopman Note:*** **Similar to mutual funds, UITs are not traded in the secondary market. Instead, they must be redeemed by the trust.**

4.4.2.2 UIT Performance Measurement

The performance of UITs is measured similarly as the performance of mutual fund shares. Like those of mutual funds, UIT prices are determined by the net asset value of the underlying securities in the fund. This value rises and falls with the value of the underlying investments. However, when calculating the total return of the investment, the NAV is only part of the equation—dividends and capital gains must also be taken into account.

4.4.3 Suitability of UITs

Unit investment trusts offer several features that benefit investors more than if they were to invest in individual securities. For example, a UIT can pay monthly dividends, which can be taken in cash or reinvested into more shares of the UIT, allowing the earnings to compound. These highly predictable distributions are one of the primary advantages of UITs.

Also, the sponsor of a UIT will buy back units at the current net asset value if an investor needs to cash out of the investment early. The set termination date of a bond UIT means that the sponsor can calculate an accurate expected yield from the investment, allowing investors to do long-term planning.

Investors always know exactly what they own when they invest through a UIT. Some investors find comfort in that the securities and management style of the UIT do not change throughout its life.

UITs offer an attractive opportunity for investors to own a portfolio of securities that is typically liquid with a low minimum investment. Because the portfolio is fixed, the cost of the investment is typically lower than that of other packaged products. Also, the absence of active trading in the portfolio creates great tax efficiency. There are almost no unexpected or unwanted capital gains distributions, except under unusual circumstances.

4.4.3.1 Risks of UITs

Generally speaking, unit investment trusts may not be appropriate for investors seeking capital preservation. The portfolios take on the risk of the underlying securities. There is no assurance that an individual UIT portfolio will meet its objective.

UITs are not actively managed and are not sold to take advantage of market conditions. Upon termination, there is no assurance that the value of the UIT will be equal to or higher than the original price.

The level and type of risk associated with UITs may vary significantly from one trust to another. To know the risks, it is important to have a complete understanding of the underlying securities from which a UIT derives its value. The investment strategies and risks of each UIT are fully outlined in the trust's prospectus.

4.5 Exchange-Traded Funds

Exchange-traded funds (ETFs) are another type of investment company. Although ETFs can legally be established as either UITs or open-end funds, their characteristics make them a unique hybrid of all the types of investment companies that have previously been discussed.

4.5.1 Features of ETFs

ETFs are designed to closely track the performance of a specific sector, market benchmark, or index. For example, popular ETFs hold the same stocks as major indices, such as the S&P 500 or Dow Jones Industrial Average. Bond ETFs might track issuers from a specific sector or a specific region. Other ETFs track the value of commodities, such as the price of gold and oil.

4.5.1.1 Passive Investment Vehicles

It's important to note that ETFs, similar to UITs, are passive investment vehicles; they are not actively managed to outperform the current market. Typically, the only time the portfolio of an ETF will change is if the underlying index changes. For example, in 2013 when Facebook was added to the S&P 100 and S&P 500, all the ETFs tied to those benchmarks had to buy Facebook stock to add to their portfolios. Otherwise, whatever is in the portfolio generally remains in the portfolio.

> ***Knopman Note:* The process of adding or removing securities from the portfolio of an ETF or index fund to ensure that the portfolio mirrors the underlying index is referred to as *reconstitution*.**

One advantage of this passive strategy is that ETFs are typically a lower-cost option for investors because there are no management fees. Additionally, because the portfolio of an ETF is not actively traded, ETFs have low portfolio turnover. This creates greater tax efficiency, as realized capital gains are minimized.

ETFs have become incredibly popular in recent years, and as their focus becomes more specialized, some may become more actively managed. However, the focus on the exam is on ETFs as a passive vehicle.

> ***Knopman Note:* Investors who want exposure to indices and tax efficiency without incurring management fees and high trading costs should consider ETFs.**

4.5.1.2 Trading ETFs in the Secondary Market

As their name implies, ETFs are exchange-traded. The procedures for buying or selling ETFs are the same as for buying or selling stocks. Like closed-end funds, the share price of an ETF is determined by supply and demand. The shares can trade at either a premium or at a discount from the NAV, since the current market price of the shares will fluctuate throughout the day as determined by market forces.

ETFs allow investors to use different types of trading strategies that apply to other securities purchased in the secondary market, such as short-selling and buying on margin. Shares can also be purchased or sold through advanced orders like stop and limit orders. As with closed-end funds, investors pay commissions when purchasing or selling shares of an ETF.

> ***Knopman Note:* ETFs, similar to closed-end funds, are exchange-traded and therefore investors pay commissions when purchasing the shares.**

4.5.2 Advantages and Disadvantages of ETFs

As discussed, ETF features combine many attractive benefits for investors. Because portfolios are supervised, rather than actively managed, the costs of ETF investments are typically lower than those of management investment companies. The absence of active trading also reduces an investor's tax liability, as fewer capital gains will be realized. Additionally, because shares of an ETF are actively traded in the secondary market, between investors on exchanges, they are extremely liquid, as they can be sold at any time throughout the day.

Of course, ETFs also have their disadvantages. Even though they do not charge management fees, investors must still pay commissions when purchasing these shares, which can negatively impact returns. Additionally, the fact that the shares are extremely liquid might lead investors to overtrade their positions, especially when the market is performing poorly, which is not always the best investment strategy—it creates timing risk and results in increased commission payments. Finally, the lack of active professional management means that the returns of an investor's ETF will be consistent with the market, but will not beat that benchmark.

4.6 Investment Company Comparison

It is extremely important to understand the different features of the investment companies that have been discussed and how they all compare to one another. The chart below details some of these key characteristics.

Feature	Mutual Funds	Closed-End Shares	UITs	ETFs
Continuous primary offering	✓			
Fixed number of shares/units issued through IPO		✓	✓	✓
Redemption of shares at NAV	✓		✓	
Exchange trading of shares		✓		✓
Actively managed portfolio	✓	✓		
Fixed portfolio			✓	✓
Stated termination date			✓	
Distributes dividends and capital gains to investors	✓	✓	✓	✓

***Knopman Note:* Closed-end funds and ETFs trade intraday on the secondary market, while mutual funds and UITs do not. Investments with secondary market trading are considered more liquid.**

Closed-end funds and mutual funds are actively managed, while UITs and ETFs are supervised. Actively managed funds incur higher fees.

Pop Quiz 5 *(Chapter 4)*

The grid below lists several features/benefits of mutual funds. Check all the features/benefits that are also offered by the other types of investment companies listed.

Features of Mutual Funds	Closed-End Funds	Unit Investment Trusts	Exchange-Traded Funds
Diversification among many securities			
Share redemptions from the fund			
Active management			
Low minimum investment			
Clearly stated investment objective			
Continuous offering of shares			

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 4)*

(B) The investment adviser has responsibility for investment strategy, trading, and portfolio management. The custodian acts as caretaker of the fund's securities. The transfer agent sends out trade confirmations.

Pop Quiz 2 *(Chapter 4)*

1. Ed: Sector fund
2. Paula: Money market fund
3. Ronnie: Asset allocation fund
4. Scott: Index fund
5. Jill: Bond fund

Pop Quiz 3 *(Chapter 4)*

_____ Mutual fund shares are offered to the public once or twice per year.
__X__ Net asset value (NAV) is always expressed per share.
__X__ When a mutual fund pays a distribution, NAV decreases.
_____ The public offering price of mutual fund shares is always NAV.
_____ A contingent deferred sales charge (CDSC) is paid by the investor annually.
_____ Investors can avoid CDSC by investing enough to qualify for breakpoints.

Explanation: Net asset value (NAV) is the total assets of the fund minus its total liabilities. It is always expressed on a per-share basis. If the mutual fund makes a distribution (i.e., pays cash) to investors, NAV decreases because assets in the form of cash are being paid out.

Pop Quiz 4 *(Chapter 4)*

__D__ The act of tendering shares directly to the mutual fund to exit a position
__C__ Investment amount required to earn a sales charge discount
__B__ Method for determining the value of a mutual fund share redemption
__A__ Total assets of a mutual fund (per share) minus total liabilities of the fund (per share)

Pop Quiz—Solutions (Continued)

Pop Quiz 5 *(Chapter 4)*

Features of Mutual Funds	Closed-End Funds	Unit Investment Trusts	Exchange-Traded Funds
Diversification among many securities	X	X	X
Share redemptions from the fund		X	
Active management	X		
Low minimum investment	X	X	X
Clearly stated investment objective	X	X	X
Continuous offering of shares			X

Notes:

- ETFs may have active management but in most cases it is passive—i.e., index-tracking. Unit trusts are not managed.
- Only mutual funds have a continuous offering of new shares; all other investment companies have a one-time offering for a fixed number of shares.
- Breakpoints only apply in mutual funds because the other types of investment companies lack front-end sales charges.

Unit Exam

1. Lee is told by his broker that he should take advantage of breakpoints in buying mutual fund shares. What is the advantage of breakpoints?
   A. Ability to redeem shares directly with the issuer
   B. Tax savings
   C. Reduction in the sales charge for buying shares in large quantities
   D. The best trade execution available

2. Jackson puts in an order to redeem 300 shares of a mutual fund. It does not have a contingent deferred sales charge (CDSC). When will he learn the price at which his shares are redeemed? What will this price be?
   A. Price is known at the time of the order; price is his ask.
   B. Price will be known within a day; price is his ask.
   C. Price is known at the time of the order; price is NAV.
   D. Price will be known within a day; price is NAV.

3. Sandra is buying her first mutual fund and wants to know what information she will receive from the fund. Assuming she makes no requests, she must receive, at minimum, which one of the following documents?
   A. Summary prospectus
   B. Full prospectus in hard copy
   C. Full prospectus in electronic form
   D. Statement of additional information

4. Which of the following entities is responsible for distributing dividends and capital gains to fund shareholders?
   A. Custodian
   B. Transfer agent
   C. Investment adviser
   D. Sponsor

5. Which one of the following is *not* a component of a mutual fund's total return?
   A. Change in NAV
   B. Dividend payments
   C. Unrealized gains and losses on the fund's portfolio securities
   D. Capital gains distributions

6. Which of the following investment objectives is *not* met by money market mutual funds?
   A. Safety
   B. High current income
   C. High degree of liquidity
   D. Price stability

7. When are assets held in money market mutual funds covered by FDIC insurance?
   A. Always, up to $250,000 per depositor
   B. Only when the investor is a US individual
   C. Only if the sponsor of the fund is an FDIC-insured bank
   D. Never

8. Which of the following bond funds will have the highest degree of safety?
   A. High-yield bond fund
   B. Corporate bond fund
   C. Municipal bond fund
   D. US government bond fund

Unit Exam (Continued)

9. Alvin buys shares of Blue Chip Growth Mutual Fund in his brokerage margin account on March 1. He wants to know when he can use the value of these shares as collateral to buy other securities on margin. The answer is:

   A. never, because mutual fund shares are not marginable.
   B. on or after March 16 (15 days after purchase).
   C. on or after March 31 (30 days after purchase).
   D. on or after January 1 of the next year.

10. Which two components of a mutual fund's expenses are included in the calculation of its expense ratio?

    A. Management fees and sales charge
    B. Sales charge and 12b-1 fees
    C. Operating expenses and continuing charges
    D. Management fees and operating expenses

11. A mutual fund offers breakpoints for purchases of $50,000, $100,000, and $250,000. Which of the following is a breakpoint sale?

    A. Broker recommends that an investor buy $101,000.
    B. Broker recommends that an investor buy $250,000.
    C. Broker recommends that an investor buy $247,000.
    D. Investor buys $97,000 of shares on his own, without advice from a broker.

12. The biggest difference between mutual funds and closed-end funds is that closed-end funds:

    A. lack professional management.
    B. have far less diversification than mutual funds.
    C. do not redeem their own shares.
    D. do not publish net asset value (NAV).

13. What could cause a closed-end fund to trade at a price 2% below its NAV?

    A. Normal supply and demand for shares
    B. Breaking the buck
    C. Higher-than-normal share redemptions
    D. Highly distressed portfolio

14. The NAV of ABC Closed-End Fund is $16.50. The current offer price is $16.58. Frank wants to buy 100 shares at a price not greater than $16.50. What can he do?

    A. Wait for the price to decline to $16.50 and enter a market order
    B. Enter a "buy at NAV" order now
    C. Enter a limit order to buy at $16.50 now
    D. It is not possible to buy closed-end fund shares at NAV.

15. What is an important advantage offered by exchange-traded funds (ETFs) over index mutual funds?

    A. More diversification
    B. Lower risk
    C. Intraday trading
    D. Better index tracking

16. What type of investment company has both a fixed portfolio and a fixed termination date in the future?

    A. ETF
    B. Unit investment trust
    C. Mutual fund
    D. Closed-end fund

Unit Exam—Solutions

1. **(C)** Some mutual fund shares have a sales charge, most of which is passed through to a brokerage firm for providing professional service and advice. Breakpoints enable investors to qualify for a discount in the sales charge by buying shares in large quantities.

2. **(D)** Mutual fund investors do not know the exact price at which their shares will be redeemed. The price is usually the next-calculated net asset value (NAV). If there is a CDSC, it is subtracted from NAV. Since NAV is calculated at least once per day, investors don't have to wait more than a day to find out.

3. **(A)** All investors must receive a summary prospectus when they make their initial purchase of a mutual fund's shares. The full prospectus is available *on request*. For most investors, the summary prospectus is the most readable and understandable document.

4. **(B)** Mutual funds contract with a transfer agent to handle customer transactions such as issuing, redeeming, and cancelling fund shares and making distributions of dividends and capital gains.

5. **(C)** When a mutual fund reports that it has returned 10.5% over one year, for example, that figure has three components. The most important is the change in NAV from the start of the year to the end. The others are dividend payments and the annual capital-gain distribution, both of which reduce NAV. Unrealized gains and losses on the fund's portfolio securities are reflected in NAV.

6. **(B)** Money market mutual funds are suitable for investors seeking safety, price stability, and a high degree of liquidity. As no-load funds, they also can be economical to own. However, they pay very little current income.

7. **(D)** Money market deposit accounts at banks are covered by FDIC insurance, up to a limit. But money market mutual funds are *never* covered. This is a very important point for investors to understand because the names of these products are similar and easily confused.

8. **(D)** US government bond funds invest primarily in bonds issued by the US Treasury or federal government agencies, so they hold the safest bonds.

9. **(C)** Mutual fund shares cannot be purchased on margin. However, their value can be used as collateral to increase the buying power of margin accounts. Mutual fund shares acquire this loan value when they are purchased in a margin account and held for at least 30 days.

10. **(D)** The expense ratio calculation adds management fees and operating expenses and then divides the total by average annual net assets. The management fee is paid to the fund's investment adviser and expressed as a percentage of assets under management, such as 1%. Operating expenses include ongoing fees paid for recordkeeping, custodial services, legal costs, and accounting.

Unit Exam—Solutions (Continued)

11. (**C**) A breakpoint sale is a serious regulatory offense. It occurs when a broker solicits or recommends a sale just below a breakpoint that would qualify the investor for a quantity discount on the sales charge.

12. (**C**) Closed-end funds offer many of the same benefits as mutual funds: professional management, diversification, affordability, liquidity. However, they do not create and redeem their own shares to meet demand. A fixed number of shares are issued, and these shares then trade in the secondary market, like stocks. Closed-end funds calculate and publish NAVs, but they are not subject to the same daily NAV calculation requirement as mutual funds.

13. (**A**) Because closed-end funds are exchange-traded, they can trade at a discount or premium to NAV based on supply and demand for the shares.

14. (**C**) One benefit of closed-end funds is that they trade on exchanges, just like stocks. The same types of limit and stop orders that are used for stocks can be useful with closed-end funds. A "buy at NAV" order does not exist, and if he enters a market order, the price will be at the best available market price. A limit order to buy at $16.50 or better will get him what he wants, if that price becomes available.

15. (**C**) The biggest advantage of ETFs over index mutual funds is the ability to buy, sell, or trade shares intraday by placing regular orders (market, limit, etc.). This is because ETFs are exchange-traded, whereas mutual funds are only redeemable with the issuer.

16. (**B**) Only unit investment trusts (UITs) have both fixed termination dates and fixed portfolios. ETFs begin with fixed portfolios and then rebalance or reconstitute the portfolios to align with changes in the underlying index. However, ETFs do not have fixed termination dates.

5. Other Managed Products

Besides investment company securities, a number of other packaged securities allow investors to receive the benefits of professional and active management. Many of these products are suitable only for sophisticated investors, though some, such as real estate investment trusts (REITs) and master limited partnerships (MLPs), are suitable for a wider range of investors. These investments generate **passive income**, i.e., the earnings derived from an enterprise in which the investor is not actively involved.

This chapter will discuss some additional types of managed products, including real estate investment trusts, direct participation programs, limited partnerships, and hedge funds.

Chapter Goals

- Know the 75-75-90 test for REITs as well as their trading characteristics.
- Compare the tax structure of REITs and DPPs.
- Contrast the roles of the limited and general partners.
- Distinguish between a master limited partnership versus a regular limited partnership.
- Identify who hedge fund and private equity investing is suitable for.
- Know how a municipal fund security differs from a mutual fund.

Key Terms

- **Real estate investment trust (REIT)**—An actively managed pool of capital that invests in real-estate-related assets, combining professional management, diversification, exchange-trading, and tax benefits
- **Pass-through vehicle**—An investment vehicle, such as a direct participation, that pays out all income and losses to investors, therefore avoiding double taxation of earnings
- **Direct participation program (DPP)**—A business entity, for example, a limited partnership, that passes through all gains and losses to investors, therefore avoiding double taxation of earnings
- **Limited partnership (LP)**—A type of direct participation program, which includes investments from general partners, who actively manage and take full liability for the business, as well as limited partners, who have limited liability and are not involved in day-to-day management

- **Master limited partnership (MLP)**—A special type of limited partnership that is publicly traded
- **Hedge fund**—A professionally managed investment vehicle that uses aggressive trading strategies to generate higher returns at the risk of heightened losses and is therefore typically only appropriate for sophisticated, high-net-worth individuals and institutional investors
- **Exchange-traded note (ETN)**—An unsecured debt instrument whose return is tied to the performance of an equity security or market
- **Municipal fund security**—A pool of invested capital, similar to a mutual fund, that is issued by a government entity

5.1 Real Estate Investment Trusts (REITs)

A **real estate investment trust (REIT)** owns and operates income-producing real estate or real-estate-related assets. Modeled after mutual funds, REITs provide a way for individual investors to receive diversification and a share of income produced from commercial real estate ownership without actually buying and holding properties. Instead they receive a proportionate share of distributions from the pool of assets based on the amount of their ownership. In effect, REITs offer a liquid, dividend-paying means of participating in the real estate market.

The income-producing real estate assets that are owned by a REIT may vary widely, although most specialize in a single type of real estate. Commonly owned assets include office buildings, shopping malls, apartments, hotels, resorts, self-storage facilities, warehouses, and mortgages or loans.

REITs can provide important diversification benefits for investors due to their relatively low correlation with other assets, including stocks and bonds. This diversification can help improve returns without increasing overall portfolio volatility.

The unique investment characteristics of income-producing real estate provide REIT investors with competitive long-term rates of return that complement other asset classes that may be held in their investment portfolios.

> ***Knopman Note:* REITs are not investment companies and therefore are not regulated under the Investment Company Act of 1940.**

5.1.1 Structure of REITs

The IRS specifies requirements for the investment of REIT assets and the pass-through of income they generate:

- At least 75% of a REIT's total assets must be invested in real estate.
- At least 75% of a REIT's gross income must be derived from rents or mortgage interest.
- On an annual basis, REITs must distribute at least 90% of their taxable income to shareholders in the form of dividends.

> ***Knopman Note:* Assuming a REIT meets all of the above criteria, it is allowed to pass through gains to the shareholder, meaning the corporate entity only pays taxes on earnings it does not distribute. However, REITs cannot pass through losses. Any losses are reflected by the price per share decreasing on the exchange.**

5.1.2 Trading Characteristics

Like other publicly traded corporations, REITs raise capital by offering shares to the public through an initial public offering. The shares represent an interest in the assets that are managed, enabling the REIT to buy, develop, and manage real estate. The shareholders elect a board of directors, who is responsible for choosing the investments and for hiring a team to manage those investments on a daily basis.

Following the IPO, shares of large, publicly traded REITs may be listed on exchanges. Although REITs have a net asset value (NAV), as with closed-end funds, the shares may trade at a discount or premium to NAV, based on market supply and demand.

Among the fundamental factors that influence the value of a REIT's real estate holdings are the balance in supply of new buildings and the demand for new space. If new construction is available in the market more rapidly than it can be sold, building vacancy rates increase, rents can weaken, and property values decline. This results in a decrease in the net asset value of a REIT. Alternatively, the value of the shares will rise when property values and occupancy rates increase.

5.1.3 Public and Private REITs

Publicly traded REITs trade on major exchanges and offer investors the liquidity and transparency advantages of publicly traded stock. Usually investors can purchase a publicly traded REIT's common stock, preferred stock, or debt securities via a broker-dealer.

In addition to publicly traded REITs, there are **public non-traded REITs**. Non-traded REITs are distributed through broker-dealers and are generally illiquid. While potential returns may be very attractive, investor funds may be unavailable for a long time—periods of eight years or more are not uncommon. Early redemption of shares is limited, and fees associated with the sale of these products can be high.

Both publicly traded and non-traded REITs are subject to disclosure filings, including annual and quarterly reports and an offering prospectus that must be filed with the SEC. The key distinction between them is that publicly traded REITs are listed on an exchange, whereas non-traded REITs are not.

Private REITs, or **private-placement REITs**, are generally exempt from SEC registration and the disclosure requirements discussed above. They can be sold only to accredited investors and institutional clients—they do not trade on exchanges. The lack of disclosure documents makes it difficult for investors to make an informed investment decision, and the lack of liquidity can make them inappropriate for many investors.

The table below outlines the registration and trading status for REITs:

	Registered Securities (under '33 Act)	Exchange-Listed
Publicly Traded REITs	Yes	Yes
Non-Traded REITs	Yes	No
Private REITs	No	No

Knopman Note: **Unless specified otherwise, assume the term *REIT* refers to publicly traded REITs. Because they are exchange-traded and offer the most liquidity, publicly traded REITs are the most appropriate REIT investment for retail investors.**

5.1.4 Types of REITs

REITs generally fall into three categories:

- Equity REITs
- Mortgage REITs, and
- Hybrid REITs

Most REITs today are **equity REITs**. They generate income for shareholders by purchasing and operating income-producing commercial real estate. Their revenues typically come from the collection of rent on the properties they own and from the sales of properties they hold.

Knopman Note: **Equity REITs are professionally managed to generate income from rent and sales connected to the properties they hold.**

Mortgage REITs invest in mortgages or mortgage-backed securities that are tied to commercial and residential properties. Their businesses include lending money for mortgages to owners of real estate, and purchasing existing mortgages or mortgage-backed securities. Their revenues are generated primarily by the interest that they earn on the mortgage loans, the profit margin they earn on these investments, and the sales of mortgages they hold.

Hybrid REITs combine the investment strategies of equity REITs and mortgage REITs by investing in both real properties and debt instruments secured by mortgages on real estate. A hybrid REIT generates income from rent and capital gains, like an equity REIT, as well as interest income, like a mortgage REIT.

REIT Type	Investments
Equity REIT	Real property—hospitals, apartment buildings, shopping malls, etc.
Mortgage REIT	Mortgages and MBS
Hybrid REIT	Both real property and mortgages

Pop Quiz 1 *(Chapter 5)*

Match the description of each REIT with its type.

Shareholder Service	Service Name	Choices
1. Holds real estate debt and shares trade on exchanges	________	Publicly traded equity REIT
2. Owns mini-warehouses and shares are not registered with the SEC	________	Private equity REIT
3. Owns mortgages and apartment buildings; shares are registered but not exchange-traded	________	Publicly traded mortgage REIT
4. Owns and manages hospitals and medical facilities; shares are traded on the Nasdaq	________	Hybrid non-traded REIT

Answers to chapter 5 pop quizzes begin on page 155

5.1.5 Taxation of REITs

REITs are required to distribute at least 90% of their taxable income to shareholders annually in the form of dividends. Provided they do so, REITs are not subject to corporate tax on the earnings they pass through. Instead, shareholders pay tax on the dividend income they receive. Put another way, REIT dividends are only taxed at the shareholder level, not the corporate level.

Knopman Note: **If a REIT passes through 90% of its gains to shareholders, it is not required to pay tax on the amount it passes through.**

5.1.6 Suitability of REITs

REITs offer investors a number of benefits, including:

- **Diversification**—REIT returns have shown less correlation with the returns of the broader stock market, which have made them valuable as a portfolio component in down markets.
- **Dividends**—REITs can provide a consistent income stream to investors. In fact, for equity investors with current income as their primary objective, REITs are among the most popular choices.
- **Liquidity**—Exchange-listed REIT shares can be easily bought and sold.

Equity REITs can be well suited for investors seeking income, and for long-term investors seeking both income and capital appreciation. For investors with a longer time till retirement, dividends can be reinvested to generate future returns, while in later years they can provide a steady income stream to help meet expenses in retirement. Equity REITs can provide a natural hedge against inflation because over the long run real estate values have historically increased more than the inflation rate.

> ***Knopman Note:*** **A REIT is appropriate for an investor seeking income.**

Equity REITs are subject to the same risks that apply to the real estate market in general. There may be reduced demand for space in economic downturns; property values may fall; rental income may decrease. An increase in interest rates may also drive down profitability because of increased borrowing costs.

Investors find value in mortgage REITs primarily because of their potentially high dividends, which can produce income in excess of many other investments. Changes in interest rates can affect REITs' main source of earnings as well as the value of their mortgage assets. The mortgages they hold may be subject to credit risk and prepayment risk from changes in interest rates that will cause borrowers to refinance or repay mortgages.

Unlike direct real estate ownership, investing in REITs does not provide tax shelter benefits, as they do not pass through losses to investors.

> ***Knopman Note:*** **Because REITs benefit from the pass-through of gains, dividends paid by REITs are always taxed as ordinary income (the investor's tax bracket). This contrasts with dividends paid by traditional corporations, which are taxed at a lower rate as long as the investor holds the stock for more than 60 days.**

Pop Quiz 2 *(Chapter 5)*

True or false?

1. The price to buy shares in a publicly traded REIT is the net asset value per share.
2. Any investor who can meet the minimum can buy shares in a private REIT.
3. For investors seeking income and capital appreciation, publicly traded REITs can be good investments for IRAs.
4. REITs don't pass through losses to investors.

5.2 Direct Participation Programs (DPPs)

Direct participation programs (DPPs) are investment vehicles that allow investors to participate directly in the cash flows and tax benefits of the underlying entity without holding an active management role in the business. The term "direct participation program" originates from the Securities Act of 1933, and both the SEC and FINRA regulate the compensation, fees, and expenses in the public offerings of these programs.

Of the managed investments discussed in this chapter, DPPs are one of the few that can potentially serve as tax shelters. This means that investors participate not only in income and gains distributions from the underlying investments, but also in losses that they can use to reduce certain types of taxable income. Consequently, investors potentially owe less tax as a result of investment loss pass-through. However, there are limitations to this tax-sheltering benefit, specifically that passive losses can only be used to offset passive gains. Put differently, an investor cannot use the losses from a DPP to offset ordinary income or capital gains. Therefore, the primary factor in choosing a DPP investment should be economic soundness, not tax benefit. However, if tax benefits are available, investors in these programs should make use of them. Investors who do not pay a lot of taxes generally should not invest in DPPs.

> ***Knopman Note:* DPPs pass through both passive gains and passive losses to investors. This contrasts with REITs, which only pass through gains, not losses, to investors.**

> ***Knopman Note:* Passive losses can only be used to offset passive gains.**

Despite the tax-sheltering benefits, DPPs have significant risks associated with them. They frequently operate as **blind pools**, seeking investments without disclosing the underlying securities. With this structure, investors cannot evaluate the investment's risks or potential returns. DPPs are also highly illiquid investments; there is no guarantee of a secondary market. For these reasons, DPPs are generally suitable only for sophisticated investors.

> ***Knopman Note:* Unlike REITs, DPPs are generally most appropriate for institutional and sophisticated (i.e., accredited) investors due to their high risk and lack of liquidity.**

5.2.1 DPP Business Structures

Only certain business types can be structured as direct participation programs. The most common form of business structure for DPPs is the **limited partnership (LP)**, in which there are two different types of partners. **General partners** actively manage the business and usually have personal liability along with all management authority. **Limited partners** play a passive role in the business—they do not participate in any management or day-to-day decisions. The tradeoff for the passive role they play is protection from personal liability for the debts or obligations of the partnership. Like shareholders in a corporation, limited partners are liable only to the extent of their ownership interest. In other words, their personal assets are protected from any legal actions or loss that their incorporated business may face. This feature of **limited liability** can make limited partnerships an attractive investment opportunity.

> ***Knopman Note:* An S corp is a type of DPP for small businesses. Like other DPPs, shareholders of an S corp receive a pass-through of income and losses, and the S corp entity is not taxed. Note that C corps (such as Apple, Facebook, and Amazon) are not DPPs. Instead, a C corp is a taxable entity, and shareholders receive dividends that were taxed at the corporate level and will be taxed again at the shareholder level. Double taxation applies to dividends from C corps, but not S corps (or other DPPs).**

Examples of limited partnerships include hedge funds (discussed later in this chapter), oil and gas programs, and real estate programs.

	Day-to-Day Management	Liability
General Partner	Yes	Potentially unlimited
Limited Partner	No	Limited to investment amount

5.2.2 Forming a Limited Partnership

Establishing a limited partnership requires a **partnership agreement**. This agreement identifies the names and roles of the one or more general partners, who have management authority and personal liability, and the one or more limited partners, who are passive investors with no management authority. All partners—both general and limited—must be given a copy of the partnership agreement, which also defines how the partnership will function, how decisions will be made, and conditions under which changes to or dissolution of the partnership will occur.

5.2.3 The Roles of the Partners

The general partners, or managing partners, of an LP have a number of specific duties and rights. These include:

- The right to bind the partnership into legal contracts and take on debt on behalf of the partnership
- The right to accept or reject new limited partners
- The right to charge a management fee for overseeing the partnership
- The right to determine the timing and amount of cash distributions
- Fiduciary responsibility to act in the best interest of the limited partners when investing capital and managing the partnership
- The duty to settle accounts upon dissolution of the partnership

In addition, because of their active role in the business, general partners are subject to certain restrictions on their activities. They cannot:

- Borrow money from the partnership or commingle personal funds with those of the partnership
- Compete against the partnership for personal gain, and
- Continue the partnership after the departure of another GP unless the partnership agreement has authorized the activity

The roles and rights of limited partners include:

- Providing capital to the business as passive investors
- Liability that is limited to the extent of their investment
- The right to inspect books and records of the partnership
- The right to sue the GP if actions are taken that are not in the best interest of the partnership, and
- The right to vote on significant changes to the partnership

This voting right available to limited partners is called an **exercise of the partnership democracy**. It is used on an infrequent basis, and only for special circumstances, such as admitting a new GP, contesting a judgment against the GP, the sale or refinancing of partnership property, or permitting a GP to take action that is contrary to the partnership agreement.

> ***Knopman Note:* In a limited partnership, limited partners have limited liability, while the general partner has unlimited personal liability.**

5.2.4 Dissolution of the Limited Partnership

The dissolution date of the partnership is generally established in the partnership agreement. On this date, the partnership is cancelled and the manager settles the account. The order of priority of claims against the partnership is as follows:

- Secured lenders
- Other general creditors (e.g., unsecured lenders)
- Limited partners
- General partners

> ***Knopman Note*: The order of liquidation in a limited partnership is 1) secured lenders, 2) general creditors, 3) limited partners, and 4) general partners.**

Pop Quiz 3 *(Chapter 5)*

Identify whether each speaker is a general partner (GP) or limited partner (LP) in a direct participation program.

1. "I have unlimited liability for the partnership's debts and losses." ______
2. "I am a passive investor, with no responsibility for managing the partnership's affairs." ______
3. "I am the last in line to receive partnership assets in the event of a dissolution." ______
4. "If I leave, the partnership must dissolve." ______
5. "I can't lose more than the amount I have invested." ______

5.2.5 Taxation of Limited Partnerships

When businesses meet IRS qualifications as limited partnerships, economic events of the partnership flow through to the partners:

- Income
- Gains
- Losses
- Deductions (i.e., depletion and depreciation)

The partnership itself is not a tax-paying entity. Instead, each partner pays taxes based on their share of the pass-through income. This is in contrast to normal corporations, which must pay taxes at the corporate level, resulting in the disadvantage of double taxation of dividend income.

Example

Apple is a traditional subchapter C corporation, subject to double taxation. When Apple earns income, it pays income tax at the federal corporate tax rate. An investor who owns Apple stock will also be required to pay tax on any dividends received. Therefore, investors are subject to double taxation. The benefit of a direct participation program is that there is no corporate taxation. Only the individual partners pay taxes.

***Knopman Note:* Depletion is a tax deduction that compensates a limited partnership as it uses up a natural resource such as oil or gas. Because real estate is not a natural resource it cannot be depleted. Instead, real estate can be depreciated, which is a deduction that accounts for the loss of value of a physical asset over time.**

***Knopman Note:* Depreciation is a tax deduction that reflects the loss of value of a hard asset. A limited partnership that invests in raw land does not benefit from depreciation, as raw land is not a hard asset. Instead, investors in a raw land limited partnership seek appreciation in the value of the land.**

5.2.6 Master Limited Partnerships

Master limited partnerships (MLPs) are limited partnerships offered to the public and traded on exchanges. MLPs are particularly common in industries such as natural resources, financial services, and real estate. They may have hundreds of limited partner investors, and they provide investors with the advantage of freely transferable interests and limited liability—much like a corporation, but without their dividends being subject to double taxation.

***Knopman Note:* Because MLPs are exchange-traded, they are more liquid and therefore less risky than other DPP investments. Therefore, they are appropriate for a wider range of investors, including retail investors, rather than just institutional and sophisticated investors.**

Progress Check

1. Which one of the following is *not* generally traded on exchanges?
   - A. Public REIT
   - B. MLP
   - C. LP
   - D. ETF

2. To achieve tax pass-through status, what is the minimum amount of fund assets a REIT must invest in real estate?
   - A. 75%
   - B. 85%
   - C. 90%
   - D. 95%

3. For REIT investors, what is the advantage of achieving and maintaining tax pass-through status?
   - A. No federal income tax due on dividend income
   - B. No federal income tax due on capital gains
   - C. Avoidance of tax at the state and local levels
   - D. Avoidance of double taxation of earnings

4. Which of the following is *not* one of the tests that REITs must pass in order to achieve tax pass-through status?
   - A. Invest at least 75% of total assets in real estate.
   - B. Be profitable in four out of five years.
   - C. Distribute at least 90% of taxable income to shareholders annually.
   - D. Derive at least 75% of gross income from rents or mortgages.

5. Which type of managed investment product can serve as a tax shelter by passing through business losses to investors?
   - A. Exchange-traded note
   - B. Direct participation program
   - C. Public REIT
   - D. Private REIT

6. Martin has expressed interest in investing in a direct participation program (DPP). His broker says one is currently available but that it is a blind pool. What does this mean?
   - A. It is not required to disclose financial data.
   - B. Its business activities or holdings are not yet known.
   - C. The amount of cash investors must invest is unknown.
   - D. It is prohibited from selling any property in the first five years.

7. In a limited partnership, who is responsible for managing the business, with personal liability and full management authority?
   - A. Managing director
   - B. Limited partner
   - C. Board of directors
   - D. General partner

8. Which document binds the partners together in a limited partnership?
   - A. Certificate of limited partnership
   - B. Articles of incorporation
   - C. Partnership agreement
   - D. Subscription agreement

Progress Check—Solutions

1. **(C)** Public REITs, master limited partnerships (MLPs), and exchange-traded funds (ETFs) usually have active secondary markets through exchange-trading. Limited partnerships (LPs) do not. That makes LPs less liquid than other types of managed products.
2. **(A)** To achieve tax pass-through status, REITs must pass three tests: 75% of total assets must be invested in real estate, 75% of gross income must be derived from real estate, and at least 90% of taxable income must be distributed to shareholders.
3. **(D)** Pass-through status allows the REIT to avoid paying income tax at the entity level. All tax obligations are passed through the entity to investors. This avoids the double taxation of earnings that corporations normally face (one tax at the entity level; another at the investor level).
4. **(B)** To achieve tax pass-through status, REITs must pass three tests: 75% of total assets must be invested in real estate, 75% of gross income must be derived from real estate, and at least 90% of taxable income must be distributed to shareholders. There is no profitability test.
5. **(B)** Direct participation programs (DPPs) allow investors to participate in the profits and losses of a business entity without having active involvement in the business.
6. **(B)** Many DPPs are offered to investors as blind pools, meaning their specific business activities or holdings have not yet been identified. This can be a significant risk factor, increasing opacity and complexity for investors, especially those who are not sophisticated.
7. **(D)** There are two types of partners in a limited partnership. General partners, of which there must be at least one, manage the business and usually have personal liability along with all management authority. Limited partners play a *passive* role, not participating in management decisions and having liability that is limited to the amount they invested.
8. **(C)** All limited partnerships require a partnership agreement, which identifies the names and roles of the general and limited partners and binds them together.

5.3 Hedge Funds

Set up by a money manager, a **hedge fund** is an investment vehicle that is often legally established as a limited partnership. The structure is important for investor protection: if the company goes bankrupt, the creditors cannot go after the investors for more money than they've invested.

Hedge funds are similar in structure to the other investment company products discussed. They pool money from investors and invest in securities or other types of investments with the goal of earning positive returns. However, the aggressive trading strategies and lack of transparency into hedge fund trading practices make hedge funds generally inappropriate for the average investor.

A hedge fund typically pays its investment manager an annual **management fee**, as well as a **performance fee** based on an increase in the fund's net asset value year over year.

Usually the investment manager's fee ranges from 1%–2% of assets plus 20% of profits. This fee structure is referred to as "two and twenty." These high fees attract the best managers but can also eat into investment returns. In some hedge funds, annual gains need to exceed 20% to generate profit for investors due to fees and taxes.

> ***Knopman Note:*** **Hedge fund managers receive management fees and performance fees, which are typically higher than fees charged for other fund investments.**

Pop Quiz 4 *(Chapter 5)*

A hedge fund has a two and twenty fee structure. Check all of the statements below that are TRUE.

_____ The manager will earn an annual management fee equal to 20% of assets under management.

_____ The manager will participate pro rata in profits earned.

_____ Fees can have a significant impact on each investor's ability to achieve goals.

5.3.1 Hedge Fund Regulation

Hedge funds operate under different regulatory requirements than most other packaged products. They are exempt from the Investment Company Act of 1940, which gives them more flexibility in structure and design. Historically, they have also been exempt from registration under the Securities Act of 1933 because they are sold only through private placements to institutions and accredited investors. However, the Dodd–Frank Wall Street Reform Act of 2010 added regulatory provisions designed to increase transparency and disclosure of hedge fund investments. Hedge funds that manage private funds with more than $150 million in assets must now register with the SEC.

All hedge funds are subject to the same prohibitions against fraud as other market participants, and their managers owe a fiduciary duty to the investors in the funds they manage.

5.3.2 Investment Strategies

The fundamental investment objective of hedge funds is to protect or "hedge" against market declines and produce consistently positive returns. They have broad authority to invest in any type of security—even non-securities and tangible investments such as real estate—while employing sophisticated investing and trading strategies. They can contribute returns that are not closely correlated to global stock and bond markets, providing diversity to an investor's portfolio. Hedge funds accomplish this through investment strategies that offer both increased opportunity and heightened risk.

For example, hedge fund managers regularly take short positions in securities and use borrowed cash to magnify returns (thus employing leverage). While these strategies can be highly profitable, they present potential risks beyond those of traditional mutual funds. Short positions of securities can lose an unlimited amount of money in rising markets. In contrast, a long position can fall no further than zero. Leverage, or using borrowed money, can also dramatically magnify losses and force fund managers to sell in falling markets to meet margin calls on borrowed securities.

> ***Knopman Note:*** **Banks and wealth management firms offer a suite of bundled services to hedge funds through prime brokerage accounts. Prime brokers help hedge funds consolidate their trading positions among different executing firms.**

5.3.3 Purchasing Hedge Funds

Minimum investment amounts are set by each hedge fund. They are typically high dollar, with many of the best-known hedge funds starting at minimums of $1 million for purchases.

Most hedge funds are open-ended, allowing investors to add or withdraw funds on a monthly or quarterly basis. An investor owns a share of the hedge fund's net asset value, which increases and decreases with the value of the fund's investment assets less its expenses.

5.3.3.1 Lock-Ups

Hedge funds often require investors to commit to periods of illiquidity, called **lock-up periods**. The hedge fund lock-up provision is defined as the time during which an investor may not make a withdrawal from the fund. The lock-up period protects the majority of assets in the fund from liquidation and allows portfolio managers to keep a lower amount of cash on hand.

5.3.4 Suitability of Hedge Funds

Because of the unique risks of hedge fund investing, investors should carefully read the fund's prospectus and related materials. Investors should understand the increased level of risk involved in the investment strategies these fund managers employ, and ensure that the risks are suitable based on personal investing goals, time horizons, need for liquidity, and risk tolerance. Investors should recognize that with the higher potential returns comes greatly magnified risks.

> ***Knopman Note:*** **Because of their lack of liquidity, high-risk investments, and aggressive management, hedge funds are most appropriate for sophisticated investors with a high net worth.**

5.3.5 Mutual Funds and Hedge Funds Compared

	Mutual Fund	Hedge Fund
Investment Liquidity	Highly liquid—can be redeemed with issuer	Highly illiquid—usually carries a minimum lock-up period of two years or more
Permitted Investments	Securities	Securities (including derivatives) and non-securities (e.g., real estate, jewelry)
Leverage	Limited ability to trade on margin	Generally, takes on significant leverage, including with derivatives
Management Fees/ Expenses	Expense ratio is usually about 1% or less	Usually charges 2% management fee plus takes percentage of profits
Suitability	Appropriate for all investors, subject to the fund's investment objectives	Only high-net-worth and sophisticated investors

5.4 Private Equity

Similar to hedge funds, private equity firms are typically structured as limited partnerships. However, while hedge funds focus on investing in securities and other alternative investments, funds raised by **private equity** firms are generally invested directly into private companies. One of the most popular strategies that private equity funds use is to buy out or secure a majority position in a company that is not performing well. The private equity fund then builds an appropriate management team to get the company back on track. After improving the company's performance, the private equity firm takes the company public and "cashes out" or attempts to generate large returns through a company sale.

5.4.1 Role of the Manager

The manager of the private equity firm is in charge of making the investment decisions on behalf of the fund. The management team conducts all the research, or due diligence, to qualify potential companies in which to invest. The investors in the private equity fund play a passive role in the investment selection process. The money manager receives compensation that is similar to a hedge fund manager's—an annual management fee (usually 2% of the invested capital) and a portion of the fund's profits (typically 20%).

5.4.2 Risks of Private Equity

Private equity plays an important role in the markets because it fosters liquidity and entrepreneurship, and creates shareholder value. It can add jobs and stimulate economic growth.

However, private equity is one of the riskiest investments available because many companies fail or underperform. Private equity investors must be willing to take significant long-term risks for what can be very high returns.

Therefore, investments in private equity funds are typically only available to and suitable for wealthy individuals or institutional investors who can afford to commit large sums of money for long periods of time.

5.5 Structured Products

The term **structured product** refers to an investment product that produces a return based on the performance of one or more underlying securities or markets. The underlying asset could be a single security, a basket of securities, an index, a commodity, a bond, or a foreign currency. Because their value is derived from the performance of an underlying asset, these products can be referred to as **derivatives**.

Structured products generally include some guarantee or limit on downside exposure. To generate income and to provide the downside protection, these products usually rely on derivative investments and option strategies. A wide variety of structured products are available; some are straightforward, but others use highly complex structures that have been tailored for a particular issue.

The structured product that SIE candidates need to be familiar with are exchange-traded notes (ETNs).

5.5.1 Exchange-Traded Notes (ETNs)

An **exchange-traded note (ETN)** is a type of unsecured corporate debt that is typically issued by a broker-dealer. It combines two elements: a bond for the protection of principal makes up most of the investment, and the remainder is put into a derivative to provide equity exposure. The bond element ensures that the investor's principal will be protected, as long as the issuer does not default, while the derivative element offers the potential to boost returns based on the performance of the underlying equity. ETNs do not pay interest, so if the underlying equity (represented by the derivative piece) declines in price, an investor will only receive back their principal at the instrument's maturity, but with no additional returns. Put differently, the investor gets to share in the upside of the equity, but not the downside.

From a suitability perspective, because exchange-traded notes are debt obligations of the issuing broker-dealer, investors should consider that firm's creditworthiness prior to investing. Additionally, even though ETNs can be exchange-traded, because they are a relatively new product, liquidity may still be somewhat limited, especially compared to that of other exchange-listed securities.

> ***Knopman Note:* The credit quality of an exchange-traded note (ETN) is based on the creditworthiness of the issuer (e.g., the investment bank that structures it) and not the underlying asset (common stock) that its performance is tied to.**

5.5.1.1 ETNs and ETFs Compared

Below are key points about ETNs versus ETFs that candidates should know:

- Both are exchange-traded products. However, as mentioned, the secondary market for ETNs is much more limited, making them less liquid than ETFs.
- ETFs actually own the securities in their portfolios, whereas ETNs are unsecured debt instruments. ETNs' performance is based on an underlying security, but they do not actually own that security.
- Because ETFs track an index and are not created using complex products, they are more suitable for a wider range of investors than ETNs.

5.6 Municipal Fund Securities

MSRB Rule D-12 defines **municipal fund securities** as investment "pools" similar to mutual funds but that are instead issued by a state or local government entity. Like a mutual fund, the investment pool is a collection of investments from many investors. Professional managers invest and operate the fund's capital to produce capital gains and income for investors based on a defined investment objective.

Unlike standard municipal securities, municipal fund securities are not debt securities. Rather, they are equity securities; investors own a share in the investment pool. This is similar to how investors in a mutual fund own a proportionate share of the fund's underlying investments. This section will focus on one particular type of municipal fund security—local government investment pools (LGIPs). Other types will be discussed in a later chapter.

5.6.1 Local Government Investment Pools (LGIPs)

Local government investment pools (LGIPs) are established by state or local governmental entities to serve as a vehicle for investing public funds held by these entities. Their overall purpose is to provide safe, liquid, and competitive investment options for eligible local-government investors.

The money invested by these participating jurisdictions is managed by either government employees or an external investment-management firm. For example, a state may establish an LGIP that is managed by its state treasurer. Typically, the cash of participating jurisdictions is invested in securities allowed under state laws. Through the pooling of their funds, government participants receive many of the same benefits as mutual fund investors, including economies of scale, portfolio management, diversification, and liquidity.

5.6.1.1 Investment Objectives

The management of LGIPs depends on the established investment objectives. When LGIPs were first created in the late 1980s, they resembled money market mutual funds, attempting to meet the objective of stability and liquidity for investors by investing in short-term securities to avoid market risk as much as possible. They are appropriate for governmental entities that require liquidity with little tolerance for price volatility. The majority of LGIPs follow this design.

Other government investment pools have investment objectives of maximizing returns.

These pools invest in longer-term securities that have a greater potential for investment growth. Investors are subject to market and liquidity risk.

5.6.1.2 Regulation

LGIPs function very much like mutual funds. However, because they are technically municipal securities, they are regulated by the MSRB and not subject to SEC registration or regulation under the Investment Company Act of 1940. For example, unlike mutual funds, these do not require issuers to prepare a prospectus and statement of additional information, calculate net asset value on a daily basis, or establish a board of directors with independent directors.

5.6.1.3 Marketing

In most situations, LGIP securities are marketed directly to potential participants. Each fund provides information, often through the LGIP's website, to assist participants in understanding the pool's objectives and operations.

LGIPs may also engage a municipal securities firm to provide marketing services. In this case, the dealer is required to receive from the issuer a copy of an **official statement**, which must be provided to the governmental investor at or before settlement of the transaction.

5.6.1.4 Fees and Charges

As with mutual fund investments, fees and charges affect the total return on LGIP investments, as the LGIP may charge annual or other miscellaneous charges. Additionally, any investment-management firm engaged by the LGIP will usually charge a fee based on the assets under management. These fees are paid out of the assets in the pool, reducing current returns and share values.

If LGIP shares are sold by municipal securities dealers, a commission or sales charge may also apply.

Pop Quiz 5 *(Chapter 5)*

Match the product description in the left column below with the product name in the right column.

Description	Product Name	Choices
1. Long-term investment in a company that is not publicly registered or traded	________	LGIP
2. Publicly traded, unsecured debt instrument that can seek to track an index or derivative	________	Private equity
3. Investment partnership in which managers use leverage and derivatives to seek attractive rates of return	________	ETN
4. Fund for generating safe, liquid returns for government entities	________	Hedge fund

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 5)*

Shareholder Service	Service Name
1. Holds real estate debt and shares trade on exchanges	Publicly traded mortgage REIT
2. Owns mini-warehouses and shares are not registered with the SEC	Private equity REIT
3. Owns mortgages and apartment buildings; shares are registered but not exchange-traded	Hybrid non-traded REIT
4. Owns and manages hospitals and medical facilities; shares are traded on the Nasdaq	Publicly traded equity REIT

Pop Quiz 2 *(Chapter 5)*

1. False—The price to buy shares in a publicly traded REIT is the net asset value per share. **The price can be either a premium above NAV or a discount below NAV. It is set by the market and the supply/demand balance for shares.**
2. False—Any investor who can meet the minimum can buy shares in a private REIT. **These REITs are only available to accredited investors and institutional clients.**
3. True—For investors seeking income and capital appreciation, publicly traded REITs can be good investments for IRAs. **Since IRAs are tax-sheltered, REIT shares held in IRAs pay dividends that aren't currently taxable. The tax is deferred until withdrawn from the IRA.**
4. True—REITs don't pass through losses to investors. **REITs pass through dividend income and capital gains but not losses.**

Pop Quiz 3 *(Chapter 5)*

1. "I have unlimited liability for the partnership's debts and losses." **GP**
2. "I am a passive investor, with no responsibility for managing the partnership's affairs." **LP**
3. "I am the last in line to receive partnership assets in the event of a dissolution." **GP**
4. "If I leave, the partnership must dissolve." **GP**
5. "I can't lose more than the amount I have invested." **LP**

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 5)*

_____ The manager will earn an annual management fee equal to 20% of assets under management.

__X__ The manager will participate pro rata in profits earned.

__X__ Fees can have a significant impact on each investor's ability to achieve goals.

Explanation: Two and twenty means that the manager earns a 2% annual management fee as well as a performance fee equal to 20% of profits. This is a fairly common fee structure in hedge funds, but it can also be fairly expensive for investors over time.

Pop Quiz 5 *(Chapter 5)*

Description	Product Name
1. Long-term investment in a company that is not publicly registered or traded	Private equity
2. Publicly traded, unsecured debt instrument that can seek to track an index or derivative	ETN
3. Investment partnership in which managers use leverage and derivatives to seek attractive rates of return	Hedge fund
4. Fund for generating safe, liquid returns for government entities	LGIP

Unit Exam

1. Which of the following do REITs pass through to their investors?
   - A. Income, capital gains, and net capital losses
   - B. Income and capital gains
   - C. Income and capital losses
   - D. Capital gains and capital losses

2. Alice has heard about REITs and she would like to try an investment with a very limited amount of money just to learn how they work. To fulfill this wish, what should a registered rep recommend?
   - A. Buy a private REIT.
   - B. Buy a public non-traded REIT.
   - C. Buy a public REIT on the secondary market.
   - D. All REITs have large minimum investments, so this is not possible.

3. For which type of investor is a private REIT considered a suitable investment?
   - A. Accredited investor
   - B. High-tax-bracket individual
   - C. Retiree seeking current income
   - D. Institution seeking a high degree of liquidity and safety

4. Owning which of the following types of REITs is most similar to buying a personal home as an investment and holding it 10 years to capture the price appreciation?
   - A. Public equity REIT
   - B. Public mortgage REIT
   - C. Public hybrid REIT
   - D. Private REIT

5. What is a hybrid REIT?
   - A. A REIT that owns both residential and commercial real estate
   - B. A REIT that holds some property short term and other property long term
   - C. A REIT that has characteristics of both equity and mortgage REITs
   - D. A REIT that has shares that are both publicly and privately traded

6. Which of the following statements is *not* true regarding the limited partners in an LP?
   - A. They help to manage the day-to-day of the partnership.
   - B. They have limited liability.
   - C. They have the right to inspect the books and records of the partnership.
   - D. They have the right to sue the general partner.

7. When a limited partnership is dissolved, which of the following entities is *last* in line to receive a share of assets in liquidation?
   - A. Bondholders
   - B. Limited partners
   - C. General partners
   - D. General creditors

8. Jack is interested in an oil and gas limited partnership. His broker tells him to consider investing in an oil and gas MLP instead. What benefit can he enjoy in an MLP that is missing in an LP?
   - A. Liquidity
   - B. Tax benefits
   - C. Profits from oil and gas drilling
   - D. Liability limited to the amount invested

Unit Exam (Continued)

9. Mary Jane is shopping around for a suitable hedge fund and she is finding that many of them have a fee structure called two and twenty. What does this term mean?

   A. 2% sales charge and contingent deferred sales charge for the first 20 years
   B. 2% annual management fee payable over 20 months
   C. 2% annual management fee and 20% of fund profits as a performance fee
   D. 2% performance fee kicking in after the fund has earned a cumulative profit of 20%

10. Kimberly wants to participate in hedge funds because she has heard that they pursue investment strategies that are not commonly used by mutual funds. This includes:

    A. buying foreign currencies and securities.
    B. investing in emerging market securities.
    C. day-trading.
    D. engaging in short sales and using large amounts of leverage.

11. A hedge fund has a minimum investment requirement of $250,000 and a three-year lock-up provision. It is probably not suitable for an investor who needs:

    A. tax benefits.
    B. long-term capital appreciation.
    C. income distributions.
    D. short-term liquidity.

12. What investments do private equity funds generally hold?

    A. Unregistered shares of publicly traded companies
    B. Whole companies that are not publicly owned
    C. Royalties, patents, and other assets of large companies
    D. Senior debt issued by troubled companies

13. Which feature of an ETN is not found in an ETF?

    A. Maturity date
    B. Ability to track an index
    C. Intraday trading of shares on exchanges
    D. Ability to build positions by acquiring a few shares at a time

14. Local government investment pools (LGIPs) are subject to regulation by which agency?

    A. SEC
    B. MSRB
    C. CFTC
    D. They are unregulated.

15. Are dealers of local government investment pools (LGIPs) required to give prospective investors a disclosure document, describing terms and fees of the fund?

    A. No, because LGIPs are not regulated
    B. Yes, a prospectus must be delivered.
    C. Yes, an official statement must be delivered.
    D. Yes, a copy of the SEC registration statement must be delivered.

16. What is the structure of an ETN?

    A. Unsecured debt instrument
    B. Closed-end investment fund
    C. Direct participation program
    D. Unit trust

Unit Exam—Solutions

1. **(B)** REITs pass through income (from rents or mortgage interest) and capital gains. By law, they are not allowed to pass through capital losses. Any portfolio losses will generally be reflected in a lower NAV and price per share.
2. **(C)** One advantage of publicly traded REITs is that they trade in active secondary markets, like stocks. Investors can buy a few shares, hold as long as they wish, and then sell on an exchange. Buying a few shares can be a good way for investors to learn more about REITs.
3. **(A)** Private REITs can only be sold to accredited investors and institutional clients. They do not trade on exchanges, which means they are difficult to value and have low liquidity. These investments can be illiquid and fairly high-risk.
4. **(D)** Private REITs are complex investments only available to sophisticated investors, but in some ways they are most like the experience of buying a home for long-term appreciation. They are generally illiquid (like homes) and have long-term holding periods.
5. **(C)** The REIT world is divided into two camps. Equity REITs buy properties and hope to profit from their rents and price appreciation. Mortgage REITs make real estate loans or hold real-estate-related debt instruments. Hybrid REITs combine the characteristics of both.
6. **(A)** Limited partners are silent investors in an LP. They do not have an active role in the partnership. However, they still maintain certain rights including the right to inspect the books and records of the partnership and to sue the general partner if they do not act in the best interests of the partnership.
7. **(C)** Partners (limited and general) stand behind lenders and creditors in a dissolution. Remember that general partners always stand last in line, even behind limited partners.
8. **(A)** MLPs are exchange-traded limited partnerships. They invest in many of the same activities as LPs, such as oil and gas drilling and real estate. However, they are traded on exchanges like stocks. Investors can buy or sell as many shares of MLPs as they want, fairly easily. The tax benefits are the same in LPs and MLPs.
9. **(C)** Two and twenty is a common management-fee structure in hedge funds. The management fee is a flat 2% of assets annually. The manager also earns 20% of profits as a performance fee.
10. **(D)** Mutual funds are generally simpler, more transparent, and more economical than hedge funds. In today's market, mutual funds pursue many of the same strategies as hedge funds. The biggest difference is that mutual funds are prohibited from engaging in short sales and using large amounts of leverage. These strategies are common in hedge funds.
11. **(D)** A lock-up provision restricts an investor from requesting withdrawals of capital from the fund. In this case, the investor would not be able to touch capital contributed to the fund during the first three years. If an unexpected need for cash arises, money would need to be accessed elsewhere.

Unit Exam—Solutions (Continued)

12. (**B**) Private equity firms seek to add value to companies by improving their strategies or management teams. They usually need to own the whole company (or the great majority of shares) to achieve this. They also may need years to execute the turnaround strategy and realize profit in an exit event—e.g., taking the company public or finding a buyer.

13. (**A**) Exchange-traded notes (ETNs) have many of the same features as exchange-traded funds (ETFs). However, they have a different structure because they are notes (debt instruments) backed by the issuer. As notes, they have a maturity date at which the ETN will be liquidated.

14. (**B**) LGIPs allow local governments to pool their cash into vehicles similar to mutual funds. However, unlike mutual funds, which are regulated by the Investment Company Act of 1940 and the SEC, LGIPs are municipal securities regulated by the Municipal Securities Rulemaking Board (MSRB).

15. (**C**) LGIPs are municipal securities subject to the regulation of the Municipal Securities Rulemaking Board (MSRB). The issuer is required to prepare a disclosure document called an official statement. A copy must be given to investors at or before settlement of the transaction.

16. (**A**) Exchange-traded notes (ETNs) are unsecured debt instruments with returns tied to the performance of a security or market. In addition to market risk, they also have credit risk tied to the issuer's credit profile. One risk of investing in ETNs is that the issuer could default.

6. Options

Options are financial instruments that provide investors an opportunity to speculate on changing prices or to protect existing positions. An **option** is a **derivative** contract because its value is derived from the price of another asset, called the **underlying asset**. Options contracts bind two parties, who agree to standardized terms and conditions. All options contracts have a **buyer** and a **seller**, with each party bearing certain **rights** and **obligations**.

This chapter will discuss the different types of options contracts, the risks and opportunities for buyers and sellers, and strategies involved in the options marketplace. Candidates should expect a combination of both narrative and scenario-based questions as well as mathematical questions.

> ***Knopman Note:*** **Candidates should only expect three to four total options questions on the SIE Exam.**

Chapter Goals

- Describe the basic features of an options contract.
- Compare the rights, obligations, and attitudes of option buyers and sellers.
- Calculate maximum gain, maximum loss, and breakeven for each option position.
- Understand how to use options to hedge a long-stock or short-stock position.
- List the components of an option premium, and calculate intrinsic value.
- Determine profit or loss when option positions are exercised, expired, or liquidated.
- Know the role of the Options Clearing Corporation.

Key Terms

- **Call option**—An options contract that gives the purchaser the right to buy stock at a fixed price and obligates the seller to sell the stock at a fixed price if the contract is exercised
- **Put option**—An options contract that gives the purchaser the right to sell stock at a fixed price and obligates the seller to buy the stock at a fixed price if the contract is exercised
- **Premium**—The cost of an options contract, which is paid by the buyer, who is purchasing the right to do something, and received by the seller, who is taking on the obligation to do something

- **Time value**—The portion of an option's premium that reflects the time remaining until expiration
- **In-the-money**—The situation in which an option has exercisable value, which for call options occurs when the market value is above the strike price and for put options when the market value is below the strike price
- **Out-of-the-money**—The situation in which an option has no exercisable value, which occurs for call options when the market value is below the strike price and for put options when the market value is above the strike price
- **Uncovered call (or naked call)**—The riskiest options position, where an investor sells a call option without owning the underlying stock and therefore, if the contract is exercised, must purchase the shares in the market, regardless of how high the price has gone up, and then sell them at the fixed strike price
- **Covered call**—A conservative options position where an investor sells a call option while owning the underlying stock, generating income for the investor at the cost of potentially losing the upside appreciation of his shares if the option is exercised and he is forced to sell
- **Hedge**—When an investor takes a position with an opposite outlook and attitude to protect an existing investment
- **Closing transaction**—When an investor liquidates her option position and exits the market by either repurchasing an option she originally sold or selling an option she originally purchased

6.1 Options Contracts Terminology

There are two types of options contracts: **call options** and **put options**. Each contract has a buyer and a seller. Their roles are described below:

Call Options	
Buyer	The **right to buy** shares at a set price until expiration
Seller	The **obligation to sell** shares at a set price until expiration

Put Options	
Buyer	The **right to sell** shares at a set price until expiration
Seller	The **obligation to buy** shares at a set price

***Knopman Note:* The buyer and the seller have opposite roles in options contracts. If you memorize the role of the buyer in call and put contracts, you can easily remember that the seller does the opposite.**

- **Buyers** are also described as **owners** or **holders** of options contracts, or as being **long** an options contract.
- **Sellers** are also described as **writers**, or as being **short** an options contract.

These terms apply to buyers and sellers of both calls and puts.

Buyers can *choose* to take advantage of their contractual rights, while sellers are *obligated* to perform. A buyer that chooses to take advantage of these rights **exercises** the option contract. When an option is exercised, the seller does not have any choice in the matter.

6.1.1 Options Contract Specifications

All listed options contracts—both calls and puts—share certain standardized, uniform terms, as in the example below:

				Series		
Action	Number of Contracts	Underlying Asset	Expiration	Strike Price (Exercise Price)	Class	Premium
Buy	1	ABC	March	55	Call	$3.25

Number of contracts—Each option position indicates how many contracts were bought or sold. In this example, the investor bought one option contract. The **contract size** for option contracts is the number of shares of the underlying asset that can be bought or sold through the contract. For equity options, the **standard contract size** of one contract is **100 shares**.

Underlying asset—The option derives its value from the underlying asset. This exam focuses on equity options, where the underlying asset is stock. Other types of underlying assets include indices, foreign currencies, volatility, and interest rates. Calls and puts on all underlying assets function basically the same.

Examples of underlying assets:

- Stock (IBM or AAPL)
- An index (the S&P 500)

Expiration—Each option contract has a predetermined expiration, or termination date. Once the contract expires, the buyer is no longer entitled to exercise the contract, and the seller is no longer obligated to perform. An option's expiration is set at the time the contract is issued and does not change.

Strike price (i.e., exercise price)—The strike price is the price at which holders can buy (long calls) or sell (long puts) the underlying asset until the contract expires.

Class—Class describes all options of the same type (calls or puts) and issuer. All the call options on an underlying stock are one class. Similarly, all the put options of a single issuer are one class.

Example

All of the call options on IBM—regardless of differences in strike price or expiration date—are the call class.

Series—An option series describes all call or put contracts in the same class with identical strike prices and expiration dates. The illustrative table below shows premiums for a series of options. This particular chart shows two classes (calls and puts) with nine series in each class.

Calls or puts are the "class."

Call	Expiry/Strike	Puts
25.67	Oct 80	8.27
19.24	Oct 90	13.75
16.82	Oct 100	18.20
22.78	Jan 90	15.74
19.72	Jan 100	20.75
15.75	Jan 110	23.10
25.78	Apr 90	18.92
22.54	Apr 100	24.23
18.60	Apr 110	27.35

Each price represents the "premium" (discussed shortly).

Each row and column is a different "series." The Oct 90 puts are one series, the Oct 100 puts are another series, and the Jan 100 puts are another.

Premium—The cost of an option contract, which the option buyer (holder, owner) pays the option seller (writer) when the contract is purchased. The buyer pays this upfront cost for the right to buy shares (long call) or sell shares (long put) at the strike price. The premium paid by the buyer represents proceeds received by the seller for accepting the obligation to sell shares (short call) or buy shares (short put) at the strike price.

The premium is expressed as a cost per share, so the total cost to the buyer is the premium multiplied by the contract size. An equity option contract typically has 100 shares.

Example

An ABC Jan 43 call option is quoted with a premium of 4. To purchase the option, the buyer pays $4 × 100 Shares, or $400. The seller of the contract (writer/short) receives the proceeds of $4 × 100, or $400, at the time of the transaction. Similarly, if an investor had purchased eight contracts, the premium would have been $3,200—calculated as $4/Shares × 100 Shares/Contract × 8 Contracts.

***Knopman Note:* An important point regarding options premiums is that the premium, once paid, does not influence whether the option holder exercises or not. The exercise decision is based on the market value of the underlying stock compared to the contract's strike price. The premium will, however, affect the overall profit or loss on the position.**

Pop Quiz 1 *(Chapter 6)*

Match the listed option contract uniform terms below in the left column with the trade information in the right column.

Uniform Term	Trade Information	Choices
1. Action	________	Call
2. Number of contracts	________	$4.27
3. Underlying asset	________	50
4. Expiration	________	5
5. Strike price	________	Intel
6. Class	________	Sell
7. Premium	________	July

Answers to chapter 6 pop quizzes begin on page 197

6.1.1.1 Expiration Details

Options contracts expire on the **third Friday of the expiration month**.

In the illustrative calendar below, an options contract would expire on Friday the 18th.

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	**18**	19
20	21	22	23	24	25	26
27	28	29	30	31		

Standard options contracts typically expire in nine months. However, long-term options called **LEAPS**, or long-term equity anticipation securities, can have expirations of up to three years from the time of issuance.

American-style options contracts may be exercised any time the buyer chooses prior to the expiration date, while **European-style** contracts may be exercised only on the expiration date. Most single stock options are American-style, while stock index options are often European-style.

> ***Knopman Note:*** **Make sure to know the difference between American-style and European-style options contracts.**

Pop Quiz 2 *(Chapter 6)*

True or false?

1. An American-style option can only be exercised on the expiration date.
2. The seller of a European-style option can only exercise on the expiration date.
3. The expiration date for a May 50 call will be the third Friday of May.
4. On the expiration date, out-of-the-money options expire worthless.

6.1.1.2 Options Terminology Summary

Jesse buys 4 ABC Jan 50 calls at 3.

With this contract, Jesse has the right, but not the obligation, to purchase 400 shares of ABC stock at the strike price of $50 per share until her contract expires on the third Friday in January. To purchase this contract, Jesse paid a premium of $3 per share for each of the 400 shares the contract controls, for a total cost of $3 × 400 = $1,200.

			Series *Jan 50 calls are one series.*			
Position	**Number of Contracts**	**Underlying**	**Expiration**	**Strike**	**Class**	**Premium**
Buy	4	ABC	Jan	50	Call	at 3
Synonymous terms: • Own • Hold • Long	Jesse bought four options contracts. The standard contract size is 100 shares.	The underlying stock is ABC.	The option contract will expire on the third Friday in January.	Jesse has the **right to buy** 400 shares of ABC at $50 per share if she so chooses.	Jesse bought a call option.	Jesse will pay the seller $3 per share. Jesse's total cost is $3 × 400 Shares = $1,200.

Remember, every option contract has two parties—a buyer and seller—so a **counterparty** sold Jesse this contract. Let's review the trade from the counterparty's perspective. The counterparty, Erica, **sold 4 ABC Jan 50 calls at 3**, as reviewed below:

			Series *Jan 50 calls are one series.*			
Position	**Number of Contracts**	**Underlying**	**Expiration**	**Strike**	**Class**	**Premium**
Sell	4	ABC	Jan	50	Call	at 3
Synonymous terms: • Write • Short	Erica sold four options contracts. The standard contract size is 100 shares.	The underlying stock is ABC.	The option contract will expire on the third Friday in January.	Erica has the **obligation to sell** Jesse 400 shares at $50 per share if Jesse chooses to exercise the contract.	Erica sold (wrote) a call option.	Erica will receive $3 per share for total proceeds of $3 × 400 Shares = $1,200.

6.2 Call Option Concepts

Both buyers and sellers of calls can be profitable in the market. However, they profit under different market conditions based on their contractual rights and obligations.

Position	Market View
Long call (buy, own)	Bullish (want market value to increase)
Short call (sell, write)	Bearish (want market value to fall)

The buyer (owner or holder) of a call contract has the legal **right** to buy shares of the underlying stock at the **strike price**. If the buyer chooses to take advantage of this right, the contract is **exercised**.

Whether a call option is exercised depends on the relationship of the current market value to the strike price:

- If the current market value is *greater than* the strike price, the call option will be exercised. A call is **in-the-money (ITM)** when the market value of the underlying stock is above the strike price.
- If the current market value is *less than* the strike price, the call option will *not* be exercised. A call is **out-of-the-money (OTM)** when the market value of the underlying stock is less than the strike price.
- If the current market value is equal to the strike price, the option will generally not be exercised, as there is no economic benefit to doing so. This is referred to as being **at-the-money**.

To summarize, options contracts are **exercised** when they are **in-the-money**. They **expire** worthless when they are **out-of-the-money**.

These terms and their definitions apply to both buyers and sellers of calls, meaning whether an investor buys or sells will not impact whether the option is in- or out-of-the-money. Instead, a different investor response is triggered, as shown in the table below:

Call Option: 1 ABC Jan 50 Call				
Market Value	**Strike Price**	**Buyer/Owner (Bullish)**	**Seller/Writer (Bearish)**	**Terminology**
$60 (greater than strike)	$50	Always exercise	Always exercised against	In-the-money
$50 (equal to strike)	$50	Indifferent	Indifferent	At-the-money
$40 (less than strike)	$50	Never exercise	Option expires worthless	Out-of-the-money

6.2.1 Long Call

Investors who want the value of stock to increase are **bullish** investors. Call buyers are bullish because they will profit from a rising market price. When the underlying stock appreciates, the owner of a call will exercise the option and purchase the stock at the strike price. At this point, the owner can immediately resell the stock at the higher market price.

> ***Knopman Note:* If an investor believes that the stock is going to increase in value, buying calls would be the most profitable options position.**

This is the value proposition of owning call options: the call option holder can exercise and buy shares at a low strike price when the current value of the shares is higher.

Long Call	
Market View	Bullish
When to Use	Bullish speculation; stock substitute; protect short sale
Max Gain	Unlimited
Max Loss	Premium Paid
Breakeven	Strike + Premium
Profit or Loss at Given MV (in-the-money option)	Stock Price – Strike Price – Premium Paid

> ***Knopman Note:* When an option is in-the-money, this is always good for the owner of the option and bad for the writer of the option. Be sure not to conflate the term in-the-money with "profitable."**

6.2.1.1 Long Call Scenarios

Jesse buys 1 ABC Jan 50 call at 3.

This contract allows Jesse to exercise the option and buy shares of ABC from her counterparty for $50 per share until the contract expires in January. It is critical to understand when and why Jesse would choose to exercise her call option.

Scenario 1: Market Value of ABC Rises Significantly, to $60

If the market value of the underlying stock is **above the strike price (i.e., in-the-money)**, the option will be exercised to capture the value between the higher current market value and the lower strike price.

Therefore, Jesse can exercise her option and purchase 100 shares of ABC at $50 per share and then immediately sell those shares in the open market for $60 per share. She will earn proceeds of $10 per share ($60 – $50 = $10), minus the $3 per share she paid as premium, for a total profit of $7 per share. Because the contract has 100 shares, her total profit on the position is $700.

Scenario 2: Market Value of ABC Rises Slightly, to $52

If the market value of the underlying stock is **above the strike price**—even slightly—call options will be exercised. Described differently, the option is still in-the-money. By exercising, the investor recoups part of the premium paid. This results in a loss to the investor, but the loss is less than if the contract had not been exercised.

Jesse will exercise the option and purchase 100 shares of ABC at $50 per share and then immediately sell those shares in the open market for $52 per share. She will earn $2 in proceeds ($52 – $50 = $2), minus the $3 per share she paid in premiums to purchase the contract. Note that Jesse has a loss on her position of $1 per share because her sales proceeds do not recoup the entire premium.

Scenario 3: Market Value of ABC Falls to $40

If the market value is **below the strike price**, the option is out-of-the-money. OTM options will not be exercised and will expire worthless. The call buyer will realize a loss equal to the amount of the premium.

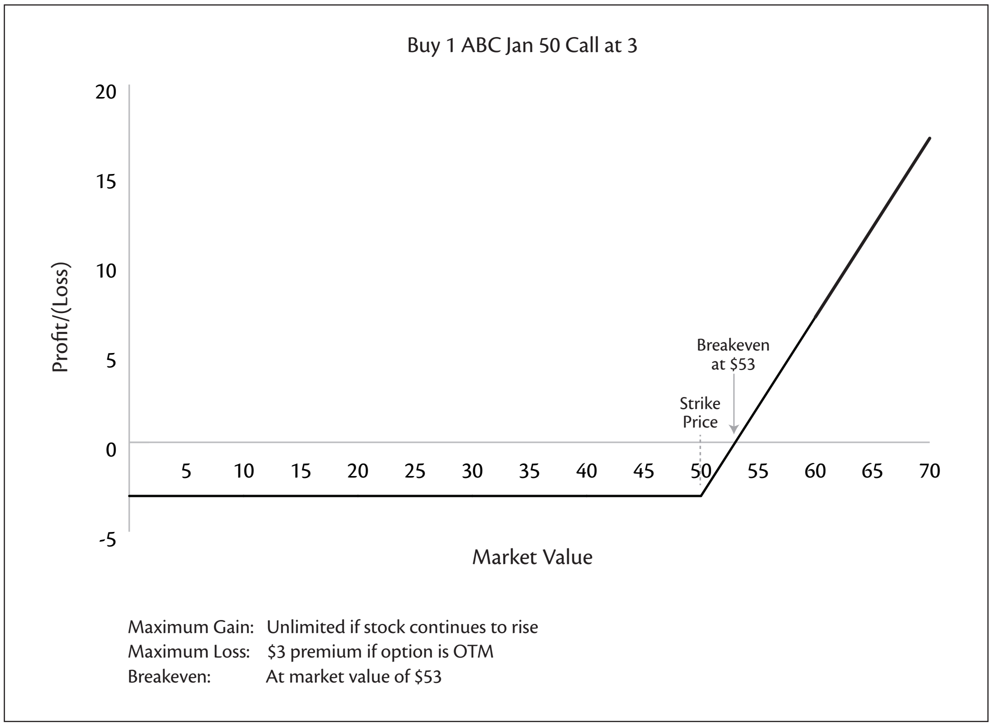
Jesse will not exercise her right to purchase shares of ABC at $50. Why? Because she has no interest in purchasing stock at the strike price of $50 when it is only worth $40. At expiration, Jesse will experience a loss of the premium she paid for the option contract. Her premium was $3 per share, so her total loss is $300.

The table below shows the performance of the option at various market values:

Long 1 ABC Jan 50 Call at 3			
	MV = 60	MV = 52	MV = 40
Long Jan 50 Call	$10 profit (ITM)	$2 profit (ITM)	Expire (OTM)
Premium	$3 paid	$3 paid	$3 paid
Profit/Loss	$7 profit	$1 loss	$3 loss

6.2.1.2 Option Profile

The profile of an option is frequently laid out in graphs, sometimes casually called "hockey sticks," like the one below. This graph plots the relationship between the market price and the performance of the option. As indicated below and discussed above, in these examples, at any market value below 50, the owner will let the option expire and will lose the premium. Once the market value passes 50, the owner will exercise the option, will breakeven at 53 (where the position is exactly flat—discussed shortly), and will profit above 53.



6.2.2 Short Call

Every call option contract has a seller (writer or short). The seller takes the opposite view of the buyer, and hopes that the market value of the underlying stock will decline. Investors that want the value of stock to decrease are **bearish** investors. Sellers of a call are bearish—they hope the market value of the underlying shares will fall so that the option they wrote will expire worthless. In this case, they will make a profit equal to the premium received. This outcome is the best possible scenario for the writer of a call option.

In other words, call writers *always* want the option to be out-of-the-money.

Short Call	
Market View	Flat or bearish
When to Use	Investors are very confident of the flat or downward movement of the stock
Max Gain	Premium Earned
Max Loss	Unlimited
Breakeven	Strike + Premium
Profit or Loss at Given MV (in-the-money option)	Strike Price – Stock Price + Premium Received

> ***Knopman Note:* The writer of a call has an obligation to sell the stock at the strike price. In return, the writer receives a premium.**

6.2.2.1 Short Call Scenarios

Erica sells 1 ABC Jan 50 call at 3.

Erica immediately earns the premium of $3 per share for a total of $300 ($3 per share multiplied by 100 shares per contract). As a call writer, she hopes ABC stock falls in value and that the option expires worthless.

Scenario 1: Market Value of ABC Rises Significantly, to $150

This option is deep in-the-money. Erica's counterparty, the call buyer, will exercise the contract, and Erica, the seller, has no choice in the matter. When the contract is exercised, Erica will be forced to sell it at the strike price of $50 per share (i.e., it is "called away"). She will purchase the stock in the open market for $150 per, in order to deliver the shares at $50. In this transaction, she will lose $100 per share ($50 – $150) offset by the $3 per share she earned from the premium. The $97 per share multiplied by the contract size of 100 shares makes for a total loss of $9,700.

This example demonstrates the position and market view of an investor with a single short call position and no stock. This is called an **uncovered call** or a **naked call** and is an extremely risky position. Uncovered call writers have unlimited risk because no matter how high the price goes, the investor must always sell at the strike price.

> ***Knopman Note:*** **Because of the unlimited risk potential of uncovered calls, this strategy is typically inappropriate for retail investors.**

Scenario 2: Market Value of ABC Rises Slightly, to $51

This option is still in-the-money, though only slightly. Erica's counterparty, the call buyer, will exercise the contract, and Erica, the seller, has no choice in the matter. Remember, a call will be exercised if the MV is greater than the strike price.

When the contract is exercised, Erica will buy the stock in the open market for $51 per share and then deliver the shares for $50. In this transaction, she will lose $1 per share ($50 – $51) offset by the $3 per share she earned from the premium. Erica will have a profit of $200 ($2 per share multiplied by 100 shares).

Scenario 3: Market Value of ABC Falls to $42

This option is out-of-the-money. Remember, call options are OTM when the market price is below the strike price. This contract will expire worthless, which is great for Erica because she will retain the $3-per-share premium. Erica has a total profit of $3 per share, or $300 ($3 per share multiplied by 100 shares).

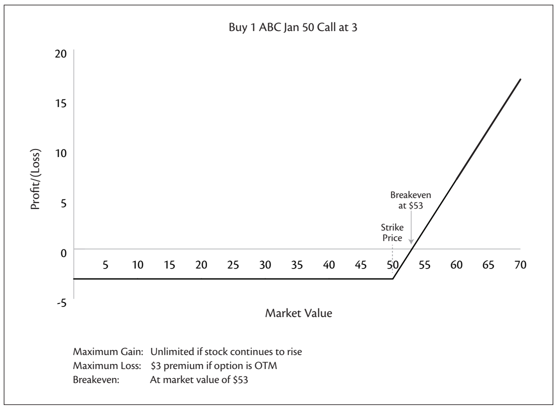
See a summary of the positions below:

Short 1 ABC Jan 50 Call at 3			
	MV = 60	MV = 52	MV = 40
Short Jan 50 Call	$10 loss (ITM)	$2 loss (ITM)	Expire (OTM)
Premium	$3 received	$3 received	$3 received
Profit/Loss	$7 loss	$1 profit	$3 profit

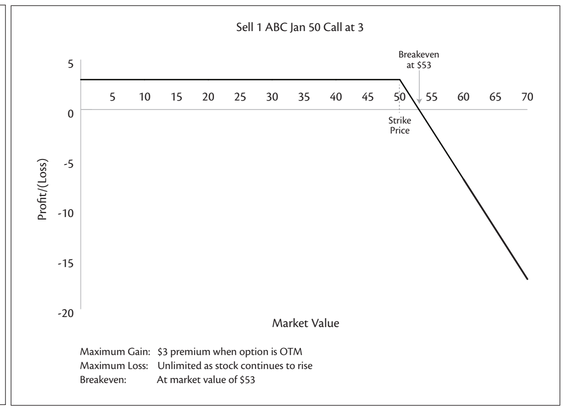
The payout chart for this position is exactly opposite the buyer's: The call writer profits the full premium when the option is below $50, breaks even at $53, and loses money when the stock is above $53.

The side-by-side payout charts below illustrate that the profit profile is exactly the opposite for the buyer and seller. In both cases, for these examples, the option is in-the-money when the stock trades above 50—this is the area where the profit is no longer flat. Note, though, that when the option is in-the-money, this is good for the buyer and bad for the seller.

Call Buyer



Call Writer



Pop Quiz 3 *(Chapter 6)*

Jack has written five ABC call options with a strike price of 65 and a premium of $3. Jill has bought the same five options at the same strike price and premium. Check all of the statements below that are TRUE.

______ If the underlying stock price is $69, the options are in-the-money.

______ If the underlying stock price is $69, his position is currently profitable.

______ If the underlying stock price is $70, Jill's position is currently profitable.

______ If Jack doesn't own any ABC stock and the option is exercised, he will have to buy 500 shares.

______ Jill can decide whether or not to exercise the stock, but this would only make sense if options are in-the-money.

6.2.2.2 Selling Covered Calls

Because of the high risk exposure, writing uncovered options is rarely suitable for retail investors. Selling **covered calls** is a more conservative strategy, appropriate for a wider array of investors.

In a covered call strategy, an investor owns the underlying stock and subsequently writes call options on that security. Investors write covered calls to generate income from the premiums earned. Investors are most likely to deploy this strategy when their market view is that the underlying stock will remain flat or neutral over the short term, but bullish on the position over the long term. This is a popular strategy for corporate executives who own a significant amount of stock in their own company. It allows them to generate additional returns on their portfolio in the form of the premiums received.

Covered calls are considered a conservative strategy because the position provides (limited) protection or **hedge** against downside risk, equal to the amount of the premium earned. However, if the underlying stock declines sharply in value, the investor must absorb an increasingly large amount of risk.

Covered call writers lose any opportunity to profit when the market price of the underlying stock is above the strike price prior to expiration. In this situation, the gains in the underlying stock will be captured by a long call holder, who will exercise the call.

Investors retain their ability to earn dividends and vote in proportion to their shares in a covered call position because they retain ownership unless and until they receive an assignment. However, if the short call is exercised against an investor, the investor will be forced to sell his stock and lose any further dividends and voting rights.

For the position to be fully covered, the underlying stock must fully collateralize the short call—that is, for each options contract written, the investor must own 100 shares of stock.

The example below illustrates the mechanics of a covered call position.

Example

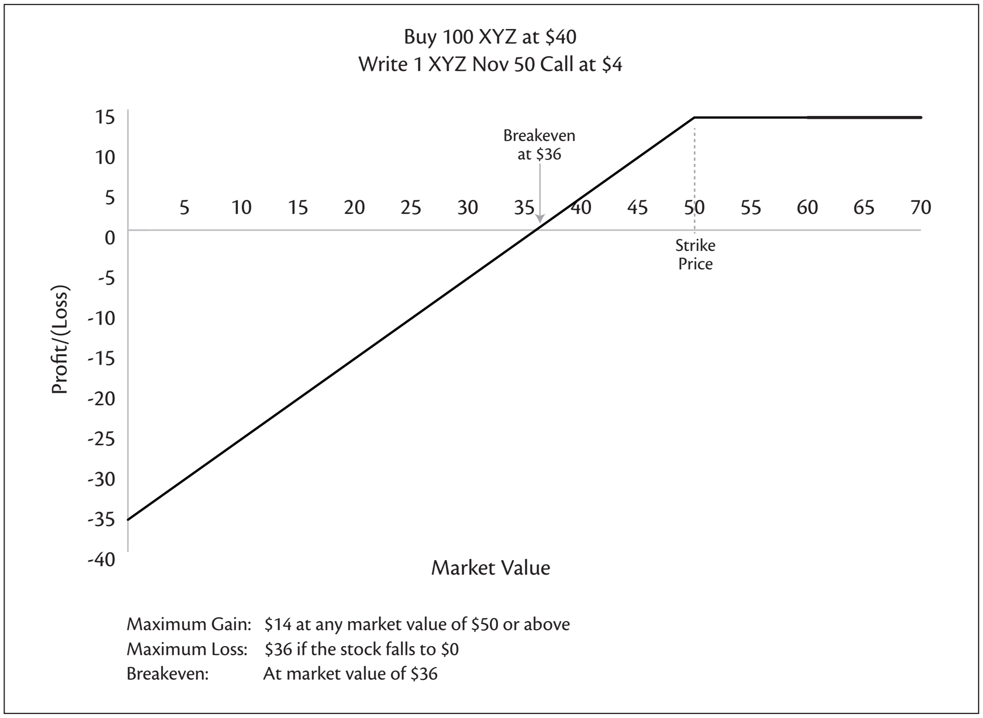
Hank owns 100 shares of XYZ stock at $40. To generate some additional income in his portfolio, he also writes 1 XYZ Nov 50 call at $4. By selling the call, Hank is limiting his upside on his stock position until expiration. No matter how high the stock goes, the short call obligates Hank to sell at $50. Therefore, the most he can make is the $10 difference between the purchase price of his stock, $40, and the strike price of the call, $50, plus the $4 in premiums received, for a total gain of $14 per share.

Because Hank owns the stock, his worst-case scenario is if the stock decreases to zero. In this scenario, he will lose $40 on the stock, though the premium earned provides some downside protection, for a total loss of $36 per share. Finally, because Hank receives the $4 premium per share, he can afford his stock to decrease $4 to $36 without losing any money. Therefore, his breakeven is $36.

The table below shows the performance of the position at various market values:

Buy 100 XYZ at $40 Write 1 XYZ Nov 50 Call at $4			
	MV = 55	MV = 38	MV = 10
Long Stock at $40	$15 profit	$2 loss	$30 loss
Short Nov 50 Call	$5 loss (ITM)	OTM	OTM
Premium	$4 received	$4 received	$4 received
Overall Profit/Loss	$14 profit	$2 profit	$26 loss
Note	Any gains above $50 are offset by loss on short call.	Premium serves as a small hedge against loss.	

In the chart below, the investor's gains are capped at any market value above the strike price.



Covered Call	
Market View	Neutral to bullish on the underlying stock
When to Use	Seeking current income; short-term view is neutral; long-term view is bullish
Max Gain	Premium + Strike Price – Cost Basis of Stock (i.e., cannot profit above strike price)
Max Loss	Substantial (stock can go to zero) Stock Purchase Price – Premium Earned
Breakeven	Stock Purchase Price – Premium Received
Risks Include	Early exercise; limited upside if underlying stock appreciates

Knopman Note: **To calculate the breakeven on a covered call, subtract the premium received from the purchase price of the stock.**

Pop Quiz 4 *(Chapter 6)*

Check any statement that is TRUE about the risks and rewards of selling naked calls.

_____ Naked calls can be dangerous because the seller is very exposed.

_____ Premium income can be attractive in naked calls.

_____ Naked calls generally are not legal.

_____ The naked call seller hopes the underlying stock price will rise rapidly.

_____ The naked call seller will be content if the underlying stock price stays the same.

6.2.3 Call Option Summary

It is important for investors to evaluate the best- and worst-case scenarios, or **maximum gain** and **maximum loss**, for their options positions. It is also important to know the **breakeven point**, which is the market price at which there is neither profit nor loss. The calculations to determine an investor's max gain, max loss, and breakeven points on call option positions are shown below:

	Long Call	Short Call
Max Gain	Unlimited	Premium Earned
Max Loss	Premium Paid	Unlimited
Breakeven	Strike + Premium	Strike + Premium

Example: 1 ABC January 50 Call at 3

	Long January 50 Call at 3	Short January 50 Call at 3
Max Gain	Unlimited	$300
Max Loss	$300	Unlimited
Breakeven	53	53

***Knopman Note:* The maximum gain and loss are exactly opposite for long and short calls. If you focus on remembering these definitions from the perspective of a long call, you can easily remember them for a short call.**

Breakeven, however, is the same for both long and short calls. A trick to remember breakeven, and also the in-the-money direction, is the phrase "call up, put down." Call up reminds you to *add* the premium to the strike price to find the breakeven, and that a call contract is in-the-money whenever the market value is *above* the strike price. Remember, this is true whether the call is long or short.

6.2.3.1 Call Profit and Loss Examples

An investor's actual profit or loss from an options position varies based on the stock's market value, and whether the investor is long or short. The table below illustrates calculations for long and short call options, assuming an ABC Jan 50 call at 3:

Market Value	Long Call Profit or Loss = MV – Strike – Premium	Short Call Profit or Loss = Strike – MV + Premium
MV = 100	\$100 – \$50 – \$3 = \$47	\$50 – \$100 + 3 = (\$47)
MV = 55	\$55 – \$50 – \$3 = \$2	\$50 – \$55 + 3 = (\$2)
MV = 51	\$51 – \$50 – \$3 = (\$2)	\$50 – \$51 + 3 = \$2
MV = 48	Do not exercise: Loss of \$3	Expires: Profit of \$3
MV = 13	Do not exercise: Loss of \$3	Expires: Profit of \$3
MV = 0	Do not exercise: Loss of \$3	Expires: Profit of \$3

6.2.4 Hedging a Short Sale

In addition to purchasing call options for bullish speculation, an investor can buy calls to reduce the risk of an established short-stock position. Theoretically, because there is no cap on how high the price of stock can rise, a short-seller's risk is unlimited.

To protect against the stock increasing in value, the investor can purchase calls, an option that allows the investor to lock in a fixed purchase price.

Example

John sells 100 shares of ABC Co. short at \$50 per share. To protect his position, John also buys 1 ABC Nov 60 call at \$5. If the price of ABC's stock decreases, the option will expire out-of-the-money and John will profit on his short, less the premium paid.

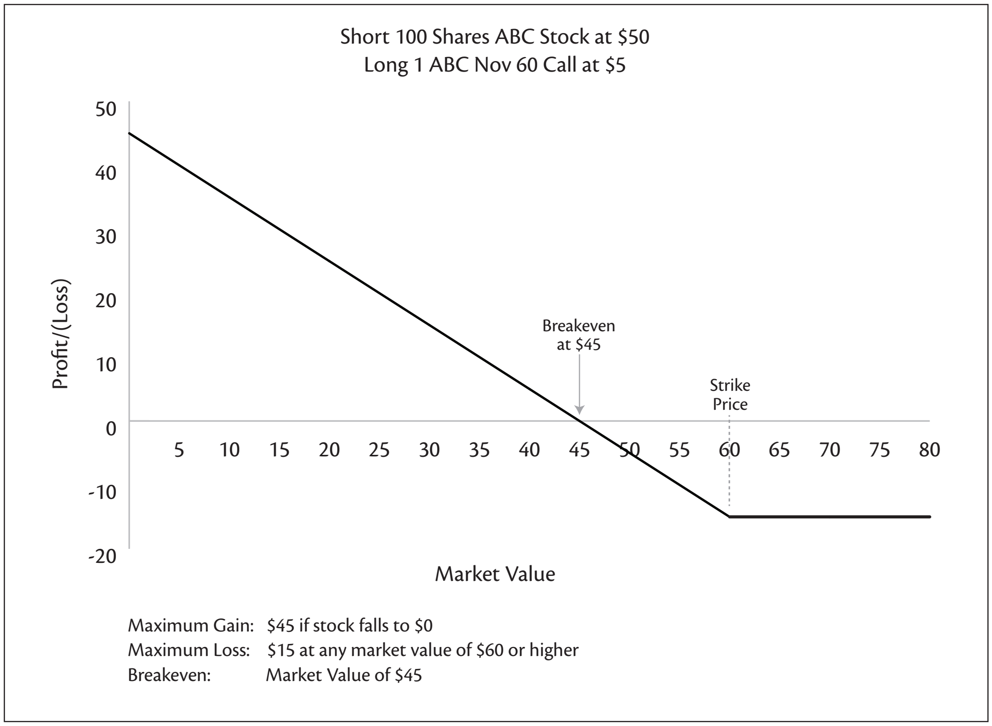
However, if the price of ABC increases, no matter how high the price goes, John has the right to buy the shares at the strike price of \$60. Therefore, the most he can lose is the \$10 difference between where he sold short and the strike price of the call, plus the premium he paid for the protection—in this case, a total of \$15. Having a maximum loss of \$15 per share is much better than the potential for unlimited loss if John had not purchased the call option.

Described differently, even if ABC stock increases to \$110, John can purchase the shares at the \$60 strike price, thereby mitigating his risk.

The table below shows the performance of the position at various market values:

Short 100 Shares of ABC Stock at $50 Long 1 ABC Nov 60 Call at $5			
	MV = 10	MV = 62	MV = 110
Short Stock at $50	$40 profit	$12 loss	$60 loss
Long 60 Call	OTM	$2 profit	$50 profit
Premium	$5 paid	$5 paid	$5 paid
Overall Profit/Loss	$35 profit	$15 loss	$15 loss
Note	Option expires; investor profits on short less premium.	Loss on short is somewhat mitigated by option.	Above $60, all losses on short are offset by profit on call.

The payout chart below also illustrates the performance of the position. If the stock falls, the investor will continue to profit on the short position, less the premium. If the stock rises, the investor's loss on the short will be offset by a gain on the call option.



***Knopman Note:* Whenever you have a stock and options position together, both the investor's attitude and the breakeven point are based on the stock position, *not* the option. Therefore, "call up, put down" will not work in scenarios where there is also a stock position.**

In the previous example, to break even, the investor needs to earn $5 on his short position in order to offset the $5 premium he paid for the option. Therefore, because he is bearish, he would break even at $45.

Protective Call (Short Stock and Long Call)	
Market View	Bearish on the underlying short stock
When to Use	Investor has unrealized gains or concerns about short-term increase; limit loss in unrealized gains
Max Gain	Stock Sale Price – Premium Paid
Max Loss	Strike Price – Stock Sale Price + Premium Paid
Breakeven	Stock Sale Price – Premium

Progress Check

1. In a listed option transaction, the option buyer pays a premium to the:
   A. stock issuer.
   B. option issuer.
   C. option seller.
   D. intermediary brokerage firm.

2. Hugo is engaging in a covered call writing strategy. He has sold three GE call options and received the premium. What makes this position covered?
   A. He must agree to buy back the calls he sold by a specified date.
   B. He must agree to buy back the calls he sold at a specified price.
   C. He must own at least 300 shares of GE stock.
   D. He must simultaneously sell 300 shares of GE stock.

3. Gifford sells three Microsoft put options with a strike price of $95. What does the strike price mean in this case?
   A. He must buy 300 shares of Microsoft at $95 if the options are exercised.
   B. He must buy 300 shares of Microsoft if the stock goes above $95.
   C. He must buy back the option contracts at a price of $95 per share.
   D. Nothing, because he is the seller; sellers are not obligated to perform.

4. Eve trades options frequently. One day, she sells five options with a strike price of $50 and a premium of $3. She also buys three options with a strike price of $30 and a premium of $4. How much cash is she positive or negative for the day, not counting commissions?
   A. She earns $150.
   B. She pays out $150.
   C. She earns $300.
   D. She pays out $300.

5. John has bought Exxon put options with a strike price of $70. He paid a premium of $3 per contract. When will these options be in-the-money?
   A. At any stock price above $70
   B. At any stock price below $70
   C. At any stock price above $73
   D. At any stock price below $73

6. Sandra has listed options that are in-the-money, and she can exercise them. Her strike price is $45. The underlying stock price is $50. She must be a:
   A. put buyer.
   B. put seller.
   C. call buyer.
   D. call seller.

7. A covered call position has two parts. What are they?
   A. Buy calls; sell the underlying stock.
   B. Buy calls; own the underlying stock.
   C. Sell calls; sell the underlying stock.
   D. Sell calls; own the underlying stock.

8. Karen writes a covered call with a strike price of $55 when the underlying stock is priced at $51. She earns a premium of $2. What is her maximum profit on the combination of option and stock?
   A. $200
   B. $400
   C. $600
   D. Unlimited

Progress Check—Solutions

1. (**C**) Premiums are paid by option buyers to option sellers. They give the buyer the right to exercise the option at a stated strike price.
2. (**C**) In a covered call, an investor sells a call option while owning the underlying stock. To be covered, the number of shares owned must equal the shares involved in the option. Because Hugo has sold three contracts, each worth 100 shares (300 in total), he must own at least 300 shares.
3. (**A**) The seller of a put option is obligated to purchase the stock at the strike price if the option is exercised. In this case, Gifford is obligated to purchase 300 shares (3 Contracts × 100 Shares per Contract) at the strike price of $95 per share.
4. (**C**) For purposes of determining cash generated or paid out, ignore strike prices. Cash is the Premium × 100 Shares per Contract. She receives $1,500 by selling five options at a premium of $3 (5 × 100 × $3). She pays out $1,200 by buying three options at $4, and she receives the difference of $300.
5. (**B**) Options are in-the-money when they are exercisable by the buyer. Call options are in-the-money when the market value is above the strike price and put options are in-the-money when the market value is below the strike price. Ignore premiums for purposes of determining when options will be in-the-money or out-of-the-money.
6. (**C**) Only buyers (not sellers) have the ability to exercise options. For option buyers, a call is in-the-money when the stock price is above the strike price. It is out-of-the-money when the opposite is true. As a call buyer, Sandra can exercise options and buy stock worth $50 for just $45 per share.
7. (**D**) In a covered call, the investor sells calls and simultaneously holds the same quantity of shares of the underlying stock (one option equals 100 shares).
8. (**C**) For covered call writers, profit is the premium earned plus any stock appreciation *up to the strike price*. In this case, it is $200 of premium plus $400 of potential appreciation, from $51 to $55. Covered call writers give up any upside above the strike price because at that point the option will be exercised and the stock called away.

6.3 Put Option Concepts

Put options, like calls, involve two parties—the buyer and the seller. Each can be profitable in the market, but they profit under different market conditions based on their contractual rights and obligations.

Position	Market View
Long put (buy, own)	Bearish (want market value to fall)
Short put (sell, write)	Bullish (want market value to increase)

Put contracts, like calls, are exercised when they are in-the-money and expire worthless when they are out-of-the-money. However, the market direction of these definitions is opposite for puts.

- A put is **in-the-money** when the market value of the underlying stock is below the strike price.
- A put is **at-the-money** when the market value of the underlying stock is equal to the strike price.
- A put is **out-of-the-money** when the market value of the underlying stock is greater than the strike price.

Put Option Example: 1 XYZ May 30 Put				
Market Value	Strike Price	Buyer/Owner (Bearish)	Seller/Writer (Bullish)	Terminology
$20 (less than strike)	$30	Exercise	Exercised against	In-the-money
$30 (equal to strike)	$30	Indifferent	Indifferent	At-the-money
$40 (greater than strike)	$30	Never exercise	Option expires worthless	Out-of-the-money

Knopman Note: **Although the preferred market direction is different for calls and puts, exercise of both types of options occurs when they are in-the-money. Buyers of puts and calls want contracts to be in-the-money; sellers do not.**

Exercise of calls or puts will not take place when contracts are out-of-the-money. Sellers like contracts that are out-of-the-money because they expire, and in this case, the seller keeps the premium received without further obligations.

The buyer (owner or holder) of a put contract has the legal **right** to sell shares of the underlying stock at the **strike price**. If the buyer chooses to take advantage of this right, the contract is **exercised**.

Whether a put option is exercised depends on the relationship of the current market value to the strike price:

- If the current market value is *less than* the strike price, the put option will be exercised.
- If the current market value is *greater than* the strike price, the option will *not* be exercised.

> ***Knopman Note:* The rights of put buyers are opposite those of call buyers. Consequently, put buyers exercise under market conditions that are opposite those required by call buyers.**

6.3.1 Long Put

Investors that want the value of stock to decrease are **bearish** investors. Put buyers (holders/owners/long investors) are bearish and will profit from a declining market price. When the underlying stock falls in value, the owner of a put will buy the cheaper shares in the market and immediately resell those shares at the higher strike price.

This is the value proposition of owning put options: the put option holder can exercise and sell shares at a high strike price when the current value of the shares is lower.

Long puts are bearish investments because they enable investors to profit from a downward price move in the underlying stock. If the underlying stock declines, the owner can purchase cheaper stock in the market, exercise the option, and sell (put) the stock at the higher strike price for profit.

Long puts, like long calls, have a known maximum loss of the premium and, therefore, limited financial risk. For these reasons, they are potentially more attractive than a short sale, which also profits when stock falls but has unlimited risk.

Long Put	
Market View	Bearish
When to Use	Bearish speculation; short stock substitute (less risk than short sale); protect long sale
Max Gain	Substantial (Strike – Premium)
Max Loss	Premium Paid
Breakeven	Strike – Premium
Profit or Loss at Given MV (in-the-money option)	Strike Price – Stock Price – Premium Paid

6.3.1.1 Long Put Scenarios

Cora buys 1 XYZ May 30 put at 4.

This contract allows Cora to exercise the option and sell (put) shares of XYZ to her counterparty for $30 per share until the contract expires in May. It is critical to understand when and why Cora will choose to exercise her put option.

Scenario 1: Market Value of XYZ Falls to $18

If the market value is below the strike, the put is in-the-money and will be exercised.

Cora can exercise her option knowing she can buy shares in the open market for $18 (the market price) and immediately sell (put) those 100 shares of XYZ to her counterparty at $30. If she does this, Cora will earn $12 in proceeds ($30 – $18 = $12) minus the $4 per share she paid as premium for a total profit of $8 per share. Overall, she earns $8 per share multiplied by 100 shares for a total profit on the position of $800.

Scenario 2: Market Value of XYZ Falls to $29

Again, the market value is below the strike price. Therefore, the option is in-the-money and will be exercised.

Cora will exercise her put contract, purchase 100 shares of XYZ at $29, and sell those shares to the put writer for $30. She will earn $1 in proceeds ($30 – $29 = $1) minus the $4 per share she paid in premiums to purchase the contract. She still has a loss of $3 per share but would have lost the full $4 premium had the option expired.

Scenario 3: Market Value of XYZ Rises to $40

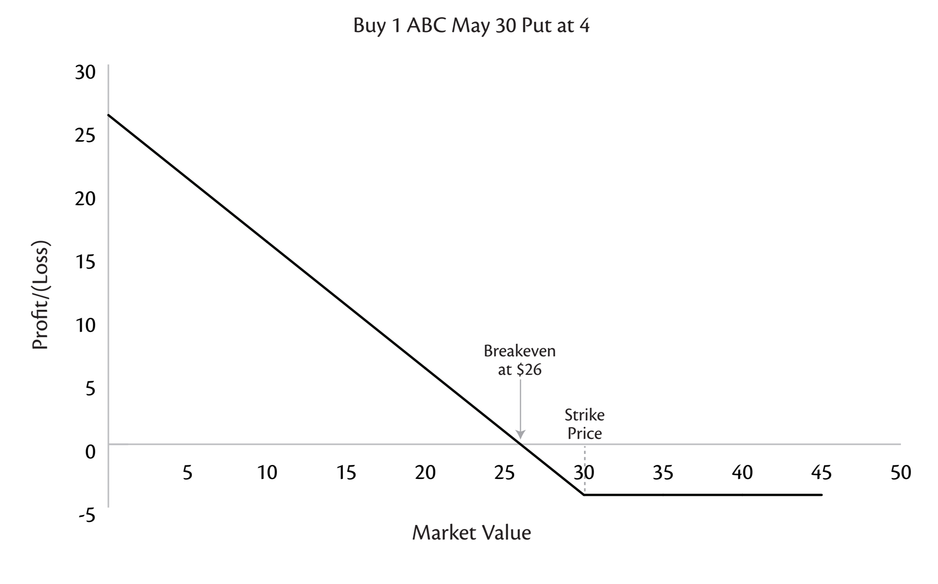
When the market value is above the strike price of a put at expiration, the option is out-of-the-money.

Cora will not exercise her right to sell shares of XYZ at $30. Why? Because Cora is not interested in "putting" (i.e., selling) the stock at $30 when it is actually worth $40. Instead, Cora will let the options contract expire worthless and will realize a loss of the premium.

A summary of her position is below:

Long 1 ABC May 30 Put at 4			
	MV = 18	MV = 29	MV = 40
Long May 30 Put	$12 profit	$1 profit	Expire
Premium	$4 paid	$4 paid	$4 paid
Profit/Loss	$8 profit	$3 loss	$4 loss

Cora's profit profile appears below. She will profit if the stock trades below $26 (breakeven) and will lose if the stock trades above $26.



Maximum Gain: $26 if market value falls to $0
Maximum Loss: $4 premium if option is OTM
Breakeven: At market value of $26

Pop Quiz 5 *(Chapter 6)*

If an investor thinks a stock is vulnerable and will experience a significant loss in value, what are the advantages of buying put options, compared to executing a short sale? Check all the options you think apply.

_____ Buying puts will tie up less money.

_____ The timing of any significant loss in the stock's value doesn't matter in buying puts.

_____ Put buyers earn stock dividends; short sellers don't.

_____ Only puts can profit dollar for dollar if the stock falls all the way to zero.

_____ The maximum loss in puts can be quantified better than in short sales.

6.3.2 Short Put

The seller of a put option takes the opposite view of the put buyer. Put sellers (writers/short investors) are **bullish** and hope the underlying stock increases in value. When the value of the underlying shares rises, the option expires worthless and the seller profits the premium. Investors write puts to earn current income from the premiums they receive.

Short Put	
Market View	Flat or bullish
When to Use	Investors are very confident of the flat or upward movement and are avoiding investments with a capital outlay (e.g., buying a call)
Max Gain	Premium earned
Max Loss	Substantial (Strike – Premium)
Breakeven	Strike – Premium
Profit or Loss at Given MV (in-the-money)	MV – Strike + Premium

6.3.2.1 Short Put Scenarios

Lila sells 1 XYZ May 30 put at 4.

By writing the contract, Lila immediately earned the $4 premium per share for a total of $400 ($4 per Share × 100 Shares per Contract). As a put writer, Lila hopes that XYZ will increase in value so that the option expires worthless.

Scenario 1: Market Value of XYZ Falls to $21

This option is deep in-the-money—this is bad for Lila as the seller of the option. Lila's counterparty will exercise the contract and force her to buy at the $30 strike price. To close the position, Lila will sell the shares for $21 per share, taking a loss of $9 per share. The loss is offset by the premium of $4 per share she earned for writing the contract. Lila's total loss is $5 per share: ($21 – $30 + $4) × 100 Shares, or $500.

Scenario 2: Market Value of XYZ Falls to $26

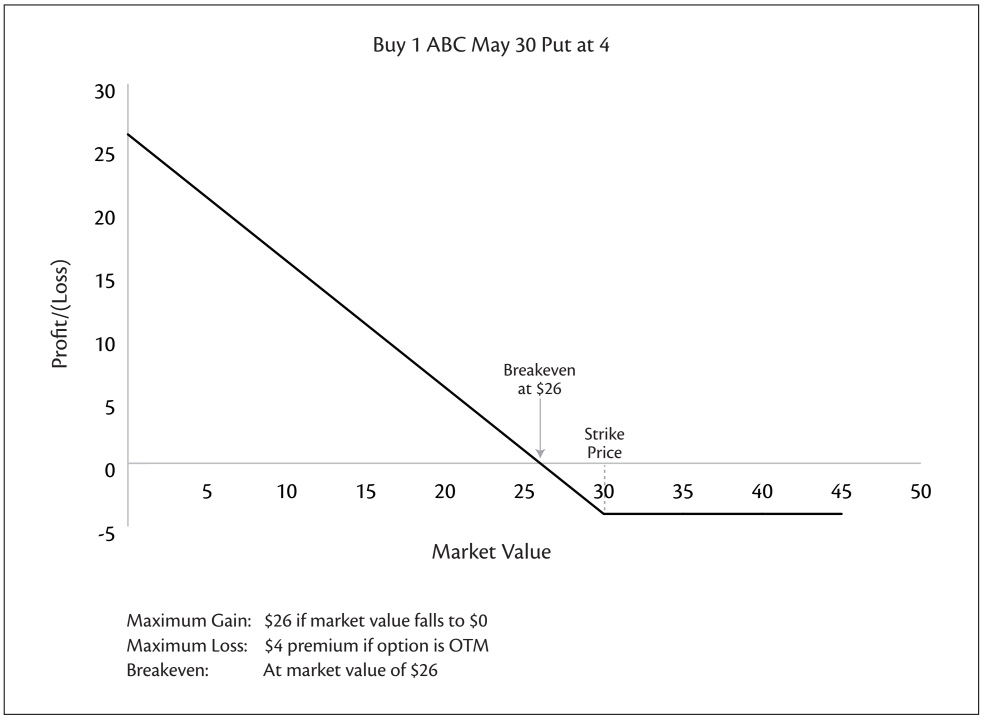
The option is still in-the-money since the market price is below the strike price. As with the prior example, the option is exercised and the stock is "put" to Lila at $30—meaning she is forced to buy it. Unfortunately, it is only worth $26. Therefore, she loses $4 on the trade. The loss is fully offset by the premium of $4 per share she earned for writing the contract, so Lila will break even on the position. Notice that while writers of options do not want them to be exercised, exercise does not always result in a loss; it can result in breakeven (no gain or loss) or in a reduced profit.

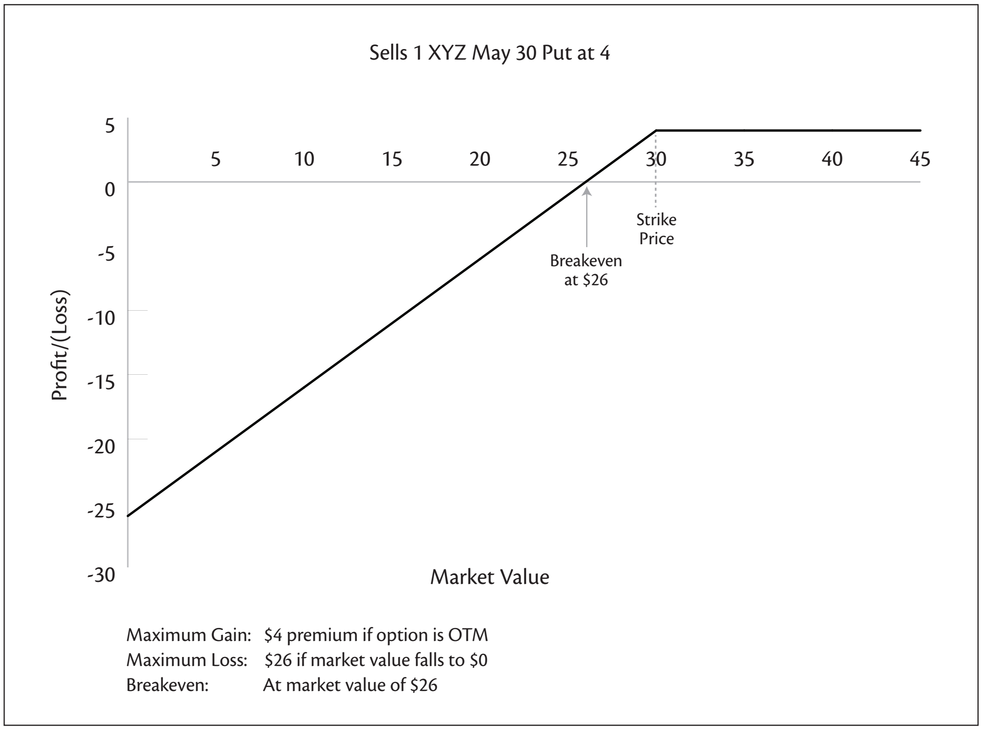
Scenario 3: Market Value of XYZ Rises to $39

When the market value is above the strike price of a put, the option is out-of-the-money. This is the best case scenario for Lila. When the contract expires, Lila keeps the $4-per-share premium and will have no further obligation.

The performance of the position and payout chart appear below. As with call options, note that the payout charts for a put buyer and seller are exactly opposite.

Sell 1 ABC May 30 Put at 4			
	MV = 21	MV = 26	MV = 39
Short May 30 Put	$9 loss	$4 loss	Expire
Premium	$4 received	$4 received	$4 received
Profit/Loss	$5 loss	Breakeven	$4 profit





The preceding example is an **uncovered put**, where the investor has not deposited cash necessary to purchase the stock if exercised. A **covered put** simply means the customer has deposited cash equal to the strike price to purchase the stock if it is put to them. Uncovered puts are less risky than uncovered calls because the maximum potential loss is not unlimited. In both cases, though, the best case scenario is for the option writer to earn the premium.

6.3.3 Put Option Summary

The calculations to determine an investor's max gain, max loss, and breakeven points on put option positions are shown below:

	Long Put	Short Put
Max Gain	Strike – Premium	Premium Earned
Max Loss	Premium Paid	Strike – Premium
Breakeven	Strike – Premium	Strike – Premium

Example: 1 XYZ May 30 Put at 4

	Long May 30 Put at 4	Short May 30 Put at 4
Max Gain	$2,600	$400
Max Loss	$400	$2,600
Breakeven	26	26

***Knopman Note:* The maximum gain and loss are exactly opposite for long and short puts. Again, learn them from the perspective of the put buyer, and you can easily remember them for the put seller.**

Breakeven is the same for both long and short puts. Again, think of the memory trick "call up, put down." Put down reminds you to *subtract* the premium from the strike price to find the breakeven, and that the contract is in-the-money whenever the market value is *below* the strike price. Remember, this is true whether the put is long or short.

6.3.3.1 Put Profit and Loss Examples

The profit or loss of a put position varies based on the market value of the stock, and whether the investor is long or short. The table below illustrates these calculations for long and short put options.

Profit or loss at a given market value (MV) **1 XYZ May 30 put at 4**	**Profit or Loss = Strike – MV – Premium**	**Profit or Loss = MV – Strike + Premium**
MV = 100	Do not exercise: Loss of $4	Expire: Profit of $4
MV = 68	Do not exercise: Loss of $4	Expire: Profit of $4
MV = 33	Do not exercise: Loss of $4	Expire: Profit of $4
MV = 29	$30 – $29 – $4 = ($3)	$29 – $30 + $4 = $3
MV = 26 *Breakeven = Strike – Premium*	$30 – $26 – $4 = 0	$26 – $30 – $4 = 0
MV = 21	$30 – $21 – $4 = $5	$21 – $30 + $4 = ($5)
MV = 0	$30 – $0 – $4 = $26	$0 – $30 + $4 = ($26)

6.3.4 Protective Puts

Similar to using calls to protect a short stock position, **protective puts** allow investors who already own stock to protect against a falling market, or secure previously earned gains, in the event of a market downturn. This strategy is used by investors who believe in the long-term appreciation potential of the shares but are concerned about downside risk in the near term.

With protective puts, investors retain all benefits of ownership, such as dividends and voting rights, until they choose to exercise. Protective puts also offer investors the benefit of time in volatile and fast-moving markets. For example, if the market price of a stock decreases suddenly and significantly, investors with a protective put are not pressured to sell the stock before its value declines further. Instead they can ride out the volatility because the put locks in a guaranteed selling price. This protection allows them to hold out for a potential market rebound and avoid selling at a loss in a knee-jerk reaction to a temporary market decline.

Example

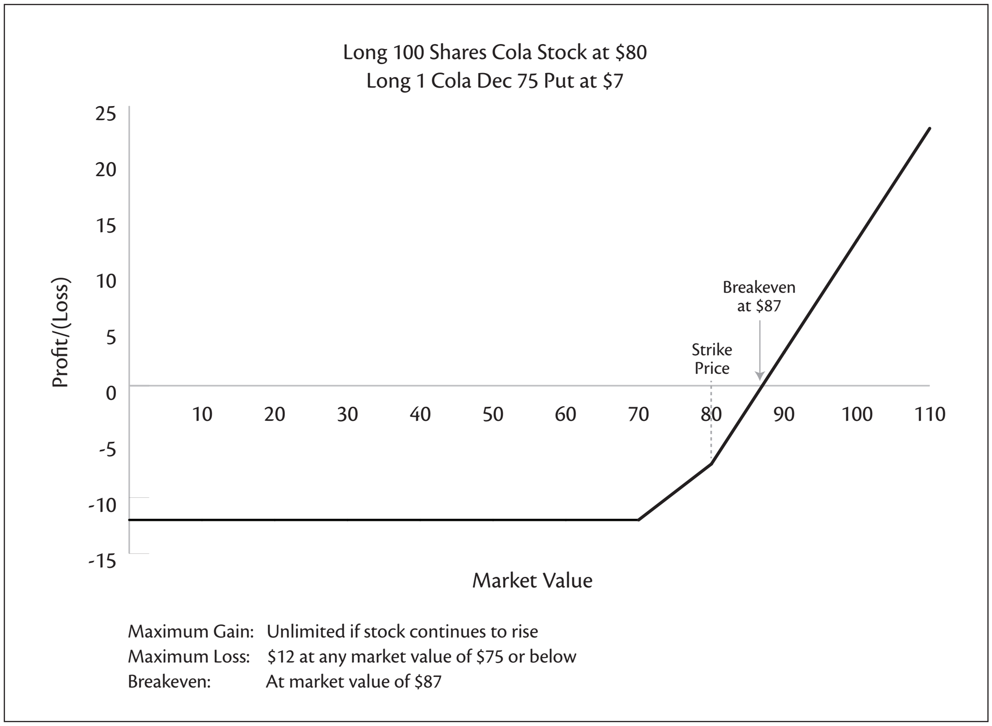
Sydney owns 100 shares of Cola Co. stock, which she purchased at $80 per share. Concerned that there might be a downturn in the market, she buys a Cola Co. Dec 75 put at $7. If Cola Co. increases in value, she can allow her insurance policy—the put—to expire and make more and more money on her stock as the price goes up. For example, if the price increases to $100, she will be quite pleased.

However, if Cola Co. decreases in value, she can exercise the put, which allows her to lock in a sale price of $75. Therefore, no matter how low the price of Cola Co. goes, the most Sydney can lose is the $5 difference between where she bought the stock, at $80, and where she has the right to sell, at $75, plus the $7 premium she paid for the option—for a total of $12 per share.

To break even, Sydney needs to earn $7 on her stock to offset the premium she paid for the protection of the put. Therefore, she will break even at $87.

The table below shows the performance of the position at various market values:

Long 100 Shares of Cola Stock at $80 Long 1 Cola Dec 75 Put at $7			
	MV = 10	MV = 62	MV = 110
Long Stock at $80	$70 loss	$18 loss	$30 profit
Long 75 Put	$65 profit	$13 profit	OTM
Premium	$7 paid	$7 paid	$7 paid
Overall Profit/ Loss	$12 loss	$12 loss	$23 profit
Note	Below $75, all losses on stock are offset by profit on put.	Below $75, all losses on stock are offset by profit on put.	Above $80, option expires; investor profits on long, less premium.



Protective Put	
Market View	Bullish on the underlying stock
When to Use	Investor has unrealized gains or concerns about short-term decline; limit downside loss in unrealized gains
Max Gain	Unlimited
Max Loss	Stock Purchase Price – Strike Price + Premium Paid
Breakeven	Cost Basis of Stock + Premium
Profit or Loss at Given MV (out-of-the-money option)	MV – Cost Basis of Stock – Premium Paid

Knopman Note: **Buying options is generally a better hedge than selling options. Writing options only protects an investor by the premium received. However, if the exam question specifies that the investor wants to earn or generate income, then *selling* a call or put is the better answer, as they will receive the premium.**

6.4 Index Options

A protective put can protect a single stock investment or an entire portfolio. **Stock index options** are used to provide protection for a diversified portfolio. They can protect any unrealized portfolio gains and allow continued appreciation in upside market moves.

Unlike equity options, which are tied to the performance of a single underlying stock, **index-based options** derive their value from the closing value of an index, such as the S&P 500.

> ***Knopman Note:*** **Take note that an investor can also purchase index options that speculate on volatility. The Volatility Market Index (VIX), also known as the fear index, measures the volatility of S&P 500 Index options.**

A key difference between equity versus index options is that when exercised, equity options have physical settlement, which results in the actual purchase or sale of shares of stock. In contrast, index-based options settle for cash. No securities change hands; instead, cash is delivered when the contract is exercised. The reason for this is to avoid the complexity of an investor having to deliver one share of every stock on an index.

> ***Knopman Note:*** **When equity options are exercised there is a stock transaction, whereas index options are exercised for cash.**

Although index options have some unique features, these contracts offer similar rights to buyers and obligations to sellers. The market attitudes of option investors are the same regardless of whether the option contract is an equity or a non-equity option contract.

Index options are useful for protecting, or hedging, diversified portfolios. Buying options provides the best protection, but costs the investor a premium. Selling options has no cost. The premium received can add income to the portfolio, but the risk exposure is high.

Example

Mr. Miller has a diversified equity portfolio and would like to limit his downside exposure. What index options strategies could hedge this risk?

SPX Options
Buying SPX puts = Best hedge, but costs premium *How does this work?* If the SPX falls, the puts are in-the-money, and Mr. Miller can exercise to capture the difference between the strike and the SPX value. This profit will offset the loss on his equity portfolio.
Selling SPX calls = Partial hedge, produces income *How does this work?* If the SPX falls, the calls will expire out-of-the-money, and Mr. Miller will retain the premium. The partial protection gained from this strategy is the premiums, which offset some of the loss if the market moves against Mr. Miller.

> ***Knopman Note:*** **If an investor has a diversified portfolio of stocks and is concerned about market risk, he can purchase a put option on that index to protect his portfolio.**

6.5 Options Premiums

The market price of an options contract is its **premium**. Options premiums include two components: **intrinsic value** and **time value**.

6.5.1 Intrinsic Value

The **intrinsic value** of an option is the amount by which it is in-the-money. As reviewed previously, the in-the-money calculation differs for calls and puts, but it is the same for the buyer/holder and seller/writer of each type of option.

Calls				
Intrinsic Value	=	Current Market Value of Underlying Stock	–	Strike Price

Puts				
Intrinsic Value	=	Strike Price	–	Current Market Value of Underlying Stock

Intrinsic value cannot be negative, which means that the lowest an option's intrinsic value can be is zero. Out-of-the-money options always have intrinsic value of zero.

Because the current market value of an option's underlying stock can always change, the intrinsic value of in-the-money options contracts also changes frequently.

6.5.2 Time Value

Time value is the other component of an option's premium. The more time until expiration, the higher an option's time value. With a longer time horizon, there is greater opportunity for the option to move in-the-money. Conversely, as expiration approaches, there is less likelihood of a change in the value of the underlying shares. Thus, an option's time value quickly declines in its final weeks.

Assume it is June 2018 and ABC has a market value of $27. Various ABC calls with a strike of $28 might have premiums as follows:

Option	Premium
ABC Jul 28 call	0.16
ABC Sep 28 call	0.55
ABC Dec 28 call	0.77
ABC Jan '20 28 call (LEAPS expires Jan 2020)	3.50

The premiums for this class increase as the time until expiration is extended. Because all of these call options are out-of-the-money (the market value is less than the strike price), the entire premium is made up of time value. The time value represents the chance that ABC will rise to a price that is greater than the strike price of $28 before expiration. Note that the 2020 call has much higher time value because it does not expire for 18 months.

6.6 The Options Market

The exam focuses on listed options contracts, which are those that are traded on a registered national securities exchange and are issued and guaranteed by a registered clearing agency. The most important registered exchange for options trading is the **Chicago Board Options Exchange (CBOE)**, though options also trade on other exchanges.

6.6.1 The Options Clearing Corporation (OCC)

The **Options Clearing Corporation (OCC)** plays a vital role in the options market, offering risk management along with clearing and settlement services. The OCC issues listed options contracts and acts as a counterparty for every contract, becoming the buyer for every seller and the seller for every buyer. In this capacity, it ensures that the obligations of the contracts it clears are fulfilled and that parties to the trade perform their responsibilities and complete settlement. Because of this, listed options have no counterparty risk.

Knopman Note: **Because listed options are issued by the OCC and not directly by the underlying corporation (e.g., Apple or Facebook), they have no impact on the capital structure of a corporation, as the company itself is not raising money. In contrast, a stock or bond issuance by a corporation would impact its capital structure.**

To exercise options contracts, options buyers give notice to their broker-dealers, which in turn notify the Options Clearing Corporation. The OCC acts as the middleman and is responsible for the assignment process. It sends assignment notices to clearing members with outstanding short positions in the same options series through a random process, or assigns on a first-in, first-out basis, meaning the oldest short is assigned the position.

The OCC **automatically exercises** any expiring equity call or put in a customer account that is $0.01 or more in-the-money, unless the customer gives other instructions.

Knopman Note: **If an investor wants to exercise an options position, her broker-dealer would notify the OCC, which would then assign her contract to an appropriate counterparty.**

6.7 Trading of Options Contracts

In addition to the exercise and expiration of options contracts, the third and most frequent outcome is the trading of options contracts in the options market.

Options trading involves entering into and exiting options positions before they expire. Investors can enter or exit the market with either a purchase of a call or put or with the sale of a call or put. Trading an options contract is also known as **closing**, **liquidating**, or **offsetting** the position.

6.7.1 Opening and Closing Options Transactions

An investor enters into the market by **opening an option position**. The opening transaction may be either a purchase or sale.

- **Opening purchase**—An investor opens a position by buying a call or put.
- **Opening sale**—An investor opens a position by selling a call or put.

Getting out of the market, or **closing an option transaction**, is always the reverse of the opening transaction. Closing transactions can be either purchases or sales.

- **Closing sale**—An investor that owns an option can exit the position with a closing sale of a contract with the same terms.
- **Closing purchase**—An investor that wrote an option can exit the position with a closing purchase of a contract with the same terms.

Opening Transaction *Getting in the Market*	**Closing Transaction** *Getting out of the Market*
Opening purchase →	Closing sale
Opening sale →	Closing purchase

6.7.2 Profit or Loss from Options Trading

A closing transaction must always involve the same contract series as the opening transaction and take place prior to the expiration of the contract. This means that the underlying asset, strike price, and expiration month must all be the same in the closing transaction. The premiums, however, will be different because of changes in the intrinsic value and/or the time value. This difference in the premium from opening to closing determines the investor profit.

Example

Chuck **wrote 2 ABC Jan 40 calls at 4**. How is this position closed?

Chuck opened his position with an **opening sale**, so to close his position and eliminate his obligation to sell shares of ABC at 40, he must make a **closing purchase** and buy 2 ABC Jan 40 calls. Notice that he must close the position with the same number of contracts. In this example, we will assume that he bought back the contract at a premium of $2 per share. Once his account has two equal and offsetting positions, the OCC will cancel them. Chuck will not receive an exercise assignment on the short call, nor be able to exercise his long call.

The difference in premium between the opening and closing transaction is the investor's profit or loss.

1st transaction: Opening sale	Write 2 ABC Jan 40 calls at 4 (+$800)
2nd transaction: Closing purchase	Buy 2 ABC Jan 40 calls at 2 (−$400)
Net	No outstanding position (+$400)

Because Chuck earned more from opening his position than he paid to close it, he has a profit.

6.7.3 Settlement Date, Exercise, and Assignment

Options that are bought or sold settle on the next business day. **Settlement** is the completion of a securities transaction. When purchasing an option contract, the buyer must pay the premium on the settlement date, at which point the buyer will legally own the contract. The holder can then exercise or trade the contract as desired.

The writer of an option will receive the premiums on settlement. At that point, the writer will be subject to the receipt of an assignment notice requiring the purchase or sale of the underlying shares.

Next-day settlement (T + 1) applies to both opening and closing transactions.

> ***Knopman Note:*** **Note the T + 1 settlement timeframe for options differs from the T + 2 settlement date of equities, corporate bonds, and municipal bonds.**

Example

On Monday, Sarah buys 1 JDS 50 put at 3 in an opening purchase. The contract will settle, and her $300 payment will be due on Tuesday, the next business day. At that point Sarah has the right to exercise should she so choose.

Later on, JDS declines in value, and the put now trades at a premium of 5. Sarah decides to liquidate her position with a closing sale. On Friday, Sarah contacts her broker and gives the closing sale order. The sale of the JDS put will occur on the next business day, Monday, and Sarah will receive $500 for the sale of the contract.

Overall, Sarah profited $200 on the trade, less any commissions.

6.7.3.1 Settlement and Options Exercise

The settlement process for the exercise of an equity option contract requires delivery of the shares. This means that the seller of the underlying stock—either the put buyer or call seller—must make good delivery of 100 shares to the buyer of the underlying stock—either the call buyer or put seller.

6.7.3.2 Settlement and Receiving Dividends on the Underlying Stock

An investor who owns an option is not entitled to receive a dividend by virtue of the option position. To receive a cash dividend, an investor must be an owner of record of the stock on or before the record date. If a dividend is declared on stock underlying an option contract, exercise notice must be given before the ex-date, which is one business day before the record date. In other words, the exercise notice must be given at least two business days before the record date.

Example

Kate holds 3 ABC Nov calls. ABC has declared a dividend payable to all holders of record on Tuesday, November 10. When does Kate need to give exercise instructions so that she will be an owner of record on Nov 10 and receive the dividend?

Kate's exercise instructions must be received no later than Friday, November 6, so that the stock purchase through the options contract can settle on or before the November 10 record date. If she gives her exercise instructions any later, she will not take ownership until after the record date and will not receive the dividend. The purchase of stock underlying an option contract settles in two business days (T + 2 settlement).

Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues
2	3	4	5	6 Last day to give call option exercise instructions and receive dividends.	7	8	9 **Ex-date** If a customer gives exercise instructions on the ex-date, the trade will not settle on or before the record date, and the buyer will *not* receive the dividend.	10 **Record date**

6.7.3.3 Adjusting Options Contracts for Stock Dividends

As discussed in Chapter 1, when a company pays a stock dividend, the cost basis of the investor's position is adjusted to reflect the new number of shares. In this scenario, any options contracts must also be adjusted to reflect the change. Specifically, the number of shares each contract represents will increase, and the strike price will decrease proportionately. It's important to note that the total value of the contract remains unchanged.

Example

An investor owns 1 ABC 60 call, subject to a 6% stock dividend. The total value of the contract is $60 Strike Price × 100 Shares per Contract, which equals $6,000. Given that the investor initially owns one contract, which represents 100 shares, a 6% stock dividend means that they will receive six more shares and thus have a total of 106 shares as the stock dividend. To calculate the new strike price, take the total contract value of $6,000 divided by the new share count of 106 to get an adjusted strike price of $56.60.

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 6)*

Uniform Term	Trade Information
1. Action	Sell
2. Number of contracts	5
3. Underlying asset	Intel
4. Expiration	July
5. Strike price	50
6. Class	Call
7. Premium	$4.27

Pop Quiz 2 *(Chapter 6)*

1. False—An American-style option can only be exercised on the expiration date. **An American-style option can be exercised any time the buyer chooses prior to expiration date.**
2. False—The seller of a European-style option can only exercise on the expiration date. **Sellers never exercise, only buyers.**
3. True—The expiration date for a May 50 call will be the third Friday of May.
4. True—On the expiration date, out-of-the-money options expire worthless.

Pop Quiz 3 *(Chapter 6)*

X — If the underlying stock price is $69, the options are in-the-money. **For calls, if the underlying stock price is above the strike price, options are in-the-money. In this case, they are in-the-money by $4.**

___ — If the underlying stock price is $69, his position is currently profitable. **The calls are in-the-money by $4, and he only received a premium of $3 per contract, so the position is not profitable for him.**

X — If the underlying stock price is $70, Jill's position is currently profitable. **Her calls are in-the-money by $5, and she paid a premium of $3, so her position is profitable by $2.**

X — If Jack doesn't own any ABC stock and the option is exercised, he will have to buy 500 shares.

X — Jill can decide whether or not to exercise the stock, but this would only make sense if options are in-the-money.

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 6)*

__X__ Naked calls can be dangerous because the seller is very exposed. **Risk is unlimited if the underlying price soars.**

__X__ Premium income can be attractive in naked calls. **It can be like earning a second stock dividend.**

_____ Naked calls generally are not legal. **They are legal but may require collateral, to make sure the seller will meet obligations.**

_____ The naked call seller hopes the underlying stock price will rise rapidly. **This exposes the naked seller to losses.**

__X__ The naked call seller will be content if the underlying stock price stays the same. **If the underlying stock price stays the same, the seller's obligation will probably be nothing (out-of-the-money) or less than the premium earned. The seller will capture most of the time value of the premium.**

Pop Quiz 5 *(Chapter 6)*

__X__ Buying puts will tie up less money.

_____ The timing of any significant loss in the stock's value doesn't matter in buying puts.

_____ Put buyers earn stock dividends; short sellers don't.

_____ Only puts can profit dollar for dollar if the stock falls all the way to zero.

__X__ The maximum loss in puts can be quantified better than in short sales.

Explanation: Buying puts ties up only the amount of the premium paid, and that is also the maximum downside loss. Like short sellers, put buyers don't earn stock dividends. Both puts and short positions can profit dollar for dollar if the stock falls all the way to zero. Also, put buyers can decide that they want to participate in any losses that are below the current market price of the stock. For example: Stock is at 62. Buy put with a strike price of 55. The put will profit on any loss from $55 all the way down to zero.

Unit Exam

1. When does the premium change hands between the buyer and seller of an option?
   A. When the trade is settled
   B. When the option goes in-the-money
   C. At expiration
   D. At expiration, but only if the option is exercised

2. Three put options trade at a price of $3 each. They have a strike price of $25 on a stock currently selling for $27. How much premium changes hands and who receives it?
   A. The writer pays the buyer $900.
   B. The buyer pays the writer $900.
   C. The writer pays the buyer $1,500.
   D. The buyer pays the writer $1,500.

3. When can the buyer of an American-style option exercise it?
   A. At any time before contract expiration date
   B. At any time within 10 business days before contract expiration date
   C. At any time up to two business days after contract expiration date
   D. Only on the contract expiration date

4. On which day of an expiration month does a listed options contract expire?
   A. The second Tuesday
   B. The first Wednesday
   C. The third Friday
   D. The last business day of the month

5. If you think a company is greatly overvalued and believe its stock price will fall, which options strategy would allow you to earn a big profit if you are correct?
   A. Sell calls
   B. Sell puts
   C. Buy calls
   D. Buy puts

6. What is a naked call write?
   A. Buying a call without owning the underlying stock
   B. Selling a call without owning the underlying stock
   C. Buying a deep-out-of-the-money call and hoping it will become profitable
   D. Buying a deep-in-the-money call and then losing your shirt

7. Nathan buys 20 call options at a premium of $4.50 and a strike price of $95. At the time of the trade, they are out-of-the-money by $2.25. What is his breakeven stock price on the position?
   A. $90.50
   B. $92.75
   C. $97.25
   D. $99.50

8. What options strategy can be a viable way to hedge the downside risk of a short sale of the underlying stock?
   A. Buy puts
   B. Buy calls
   C. Sell puts
   D. Sell covered calls

Unit Exam (Continued)

9. Joan has bought puts with a strike price of $40 and a premium of $2 per share. The underlying stock is at $47. How could her current options position be accurately described?

   A. The puts are out-of-the-money by $7 per share.
   B. The puts are out-of-the money by $9 per share.
   C. The puts are in-the-money by $5 per share.
   D. The puts are in-the-money by $7 per share.

10. What are the components of a protective put position?

    A. Own stock, buy puts
    B. Be short stock, sell puts
    C. Own stock, sell puts
    D. Be short stock, buy puts

11. Carl owns Apple stock and believes it will do well. However, he is worried that it could be dragged lower by a downturn in the stock market as a whole. How can he continue to own Apple, and participate in any upside, without being exposed to a general stock market downturn?

    A. Sell Apple calls
    B. Buy Apple puts
    C. Buy S&P 500 Index calls
    D. Buy S&P 500 Index puts

12. Assuming it's January 2020 and all other factors being equal, which option is likely to have the greatest premium?

    A. XYZ March call
    B. XYZ June call
    C. XYZ August call
    D. XYZ October call

13. Herbert buys 30 call options on General Foods stock. Who is the legal counterparty on his contract?

    A. A call seller
    B. A put buyer
    C. General Foods
    D. The Options Clearing Corporation

14. Jenny bought October put options with a strike price of $30, and she paid a premium of $2.50. She wants to close the position now, with the stock at $27 and the option worth $4.50. What will her closing transaction and net profit per contract be?

    A. Buy calls; $250 net profit per contract
    B. Sell puts; $200 net profit per contract
    C. Sell calls; $450 net profit per contract
    D. Do nothing; no profit or loss

15. What is the settlement time frame for listed options contracts?

    A. The trade date
    B. T + 1
    C. T + 2
    D. Settlement dates can vary by contract.

16. Anthony owns in-the-money call options, and the underlying stock has already declared a quarterly dividend. The record date for the dividend is in two weeks: Friday, June 14. By what date must he exercise his options to be sure of receiving the dividend on the stock delivered?

    A. June 9
    B. June 10
    C. June 12
    D. He will not receive the dividend because he was not the stockholder of record when the dividend was declared.

Unit Exam—Solutions

1. **(A)** The seller earns the premium and receives the cash when the option trade is settled. Settlement occurs one business day after the trade date.
2. **(B)** It is always the option buyer who pays the premium to the seller (writer). The premium is the Number of Options × 100 Shares per Option × Trade Price. The strike price and underlying stock price are not relevant for answering this type of question.
3. **(A)** American-style options can be exercised, at the buyer's option, at any time before the expiration date. European-style options can only be exercised on the contract expiration date.
4. **(C)** Listed options contracts expire on the third Friday of the expiration month.
5. **(D)** If an investor is bearish on a company, buying puts will give him the option to sell the stock at the strike price for stock that has declined in value. Another bearish strategy is selling calls, but the maximum possible gain from this position is just the premium earned.
6. **(B)** Many investors believe that selling calls without owning the underlying stock can be a viable way to generate income (from premiums) with very little capital committed. The problem is that naked call writing has *unlimited potential for loss*, if the stock soars in value.
7. **(D)** The options will go in-the-money when the stock hits $95. But he is out the $4.50 premium per share. For a call option buyer, the breakeven point is Strike + Premium = $95 + $4.50 = $99.50. Above $99.50, the position profits.
8. **(B)** The downside risk of a stock short sale is that the stock rises sharply in value. This risk can be offset by purchasing call options, which give the investor the right to repurchase the stock at the strike price if the option is exercised.
9. **(A)** Ignore premium for purposes of determining whether positions are in-the-money or out-of-the-money. Puts are in-the-money when the stock price is below the strike price and out-of-the-money when the stock price is above the strike price. In this case, they are $7 out-of-the-money ($47 – $40).
10. **(A)** The purpose of a protective put is to hedge a long stock position against a downturn. If the stock and options positions are matched, any price losses in the stock will be offset dollar for dollar by gains in the bought puts. The cost of having this insurance is the premium paid to buy the puts.
11. **(D)** Stock index options have important applications for hedging the general stock market risk that is embedded in almost all stocks. The combination of long stock plus a purchased stock index put will profit to the extent that the stock outperforms the index.
12. **(D)** All factors being equal, options that have the most time remaining until expiration will have the greatest time value and thus the highest premiums.

Unit Exam—Solutions (Continued)

13. (**D**) The Options Clearing Corporation (OCC) acts as the legal counterparty to all listed options contracts. It is the buyer for every contract sold and the seller of every contract bought. This adds an element of security for options traders, giving them the assurance that contract terms will be fulfilled.

14. (**B**) The closing transaction must be the opposite of the action taken at the opening trade in the same contract. If the opening trade is to buy puts, the closing trade would be to sell puts. Her profit is the difference between premium paid (-$2.50) and closing transaction price ($4.50): $2 per share or $200 per contract.

15. (**B**) Settlement occurs on the business day after the trade date (T + 1).

16. (**C**) Option holders are not entitled to dividends paid on the underlying common stock. They must exercise and actually own the stock before the dividend record date. To receive the dividend, the exercise notice must be given before the dividend ex-date, which is one business day before the record date (T + 2 settlement).

7. Suitability and Investment Risks

To build a lasting and successful career in the securities industry, registered representatives must commit to doing the right thing for their customers and guide them in making sound and suitable investment decisions. This requires registered reps to have a thorough understanding of the various securities products and their risk profiles and how these match up with their customers' objectives and financial circumstances. The ultimate goal is to ensure that recommendations are appropriate for each customer.

This chapter will review the different suitability requirements, as well as investment goals and associated risks.

Chapter Goals

- Know the three main obligations of the suitability rule.
- Describe the different types of investment risk and the strategies and investments that can be used to mitigate each.
- Explain each investment objective and the appropriate recommendations for each.
- Compare and contrast the risks and benefits of the various securities products.
- Distinguish between the three main security asset classes and understand the purpose of asset allocation and diversification.

Key Terms

- **Suitability requirement**—Obligates a registered representative to understand any recommended product and ensure that it is appropriate for the customer based on the customer's specific financial situation and objectives
- **Know your customer (KYC)**—A requirement that firms and their reps know all the essential facts, both financial and non-financial, about a customer
- **Preservation of capital objective**—A customer investment objective that has the goal of zero decline in the value of that person's investment or portfolio
- **Current income objective**—A customer investment objective that has the goal of generating current cash for the investor with little focus on growth and long-term appreciation
- **Tax-free income objective**—A customer investment objective, only appropriate for high-income investors, that has the goal of generating tax-free income through investments in municipal bonds

- **Growth objective**—A customer investment objective that has the goal of long-term portfolio appreciation, with little focus on generating current cash
- **Liquidity objective**—A customer investment objective that has the goal of immediate access to funds in order to meet a short-term goal
- **Speculation objective**—A customer investment objective that has the goal of seeking outsized investment returns in exchange for taking on much higher risk
- **Asset allocation**—The process of mixing a customer's investments across the three major investment asset classes—stocks, bonds, and cash and cash equivalents—in order to reduce the portfolio's risk
- **Diversification**—A risk management strategy where an investor mixes a wide variety of investments in different sectors within a portfolio so that the positive performance of some investments neutralize the negative performance of others

7.1 Suitability Requirements

Securities professionals may only solicit or recommend investments that are suitable for their clients. This requires that any suggested investment meet a variety of criteria based on the client's needs, objectives, time horizon, risk tolerance, tax bracket, and more. In setting forth this requirement, FINRA Rule 2111 aims to ensure fair dealings and the protection of customers who may be less sophisticated than others or unfamiliar with a recommended product and its risks, rewards, and characteristics. Therefore, to meet the **suitability requirements**, a securities professional must have a firm understanding of the product being recommended as well as the customer to whom they are making the recommendation.

The analysis of whether a recommendation is suitable is composed of three main obligations: reasonable basis, customer-specific, and quantitative suitability.

7.1.1 Reasonable Basis Suitability

A broker must have a **reasonable basis** to believe, based on an analysis of the potential risks and rewards of a possible recommendation, that the security or strategy is suitable for at least *some* investors. This reasonable basis suitability does not need to consider each customer on their own; instead it focuses on the rep's understanding of the product.

What kind of products or investments might fail the reasonable-basis test? For example, an investment that is all risk but no return. Likewise, a fraud, scheme, or manipulative device would fail this test. And, finally, if a rep does not fully understand a product and its features, but nonetheless recommends it, the test fails.

7.1.2 Customer-Specific Suitability

Customer-specific suitability requires that a rep, based on a particular customer's specific investment profile, have a reasonable basis to believe a recommendation is suitable for that customer. The broker must attempt to obtain and analyze a broad array of customer-specific factors to support this determination. The customer-specific factors to consider for this suitability requirement, such as financial situation, will be discussed in more detail in the **know-your-customer** section.

Put together, reasonable basis suitability requires the rep to understand the product and that it be suitable for someone, and customer-specific suitability requires that the product be suitable for the specific customer.

7.1.2.1 Institutional Account Exemption from Customer-Specific Suitability

Institutional investors may be exempt from customer-specific suitability requirements if two criteria are met. First, the rep must believe the institutional client is capable of evaluating investment risks independently. Second, the institutional investor must affirmatively indicate it is exercising independent judgment in evaluating the recommendations.

Under the suitability rule, institutional investors include banks, insurance companies, investment companies, and any other person (including retail clients) with total assets of at least $50 million. For example, an ultra-high-net-worth individual (e.g., Bill Gates or Warren Buffet) is considered institutional.

7.1.3 Quantitative Suitability

Quantitative suitability considers the account's turnover rate and the use of in-and-out trading, among other things, to determine whether the client is being abused, not based on the specific products in the account, but due to the timing, frequency, and quantity of transactions.

Example

A client who has a long-term time horizon and a high risk tolerance may be properly placed in a diversified equity portfolio, but if the rep regularly trades in and out of similar large-cap equity positions, this may be a quantitative suitability violation. In this scenario, each individual position conforms to the objectives, but overall, there is too much trading in the account.

For *each* recommendation, a rep must consider and adhere to all three of the suitability tests.

Suitability Type	Definition
Reasonable Basis Suitability	Requires a rep to understand any product or strategy he/she recommends by ensuring it is suitable for at least *some* investors.
Quantitative Suitability	Requires a rep to examine an investor's entire portfolio to ensure a reasonable diversification and asset mix.
Customer-Specific Suitability	Requires a rep to examine a customer's investment profile to ensure a security is consistent with the customer's specific objectives.

7.1.4 The Know-Your-Customer Rule

As mentioned above, a registered rep needs to fully understand each customer's specific suitability. Working in tandem with the rule discussed above, FINRA Rule 2090 requires firms to know the essential facts concerning every customer in order to effectively service the customer's account and make appropriate investment recommendations. The goal is to ensure that investment strategies reflect each customer's unique investment objectives and risk tolerance.

This obligation begins at the start of the customer relationship and usually requires the completion of an investor profile. This profile is typically part of the **new account form**. It includes questions about the investor and requests the following:

- Personal information, including employment status, relationship status, and number of dependents
- Financial situation, including annual income, net worth, and tax status
- Liquidity considerations
- Investment risk tolerance and experience, and
- Investment objectives and time horizon

> ***Knopman Note:*** **A client's educational background is typically not a relevant factor when determining suitability.**

7.1.5 MSRB and Suitability

The MSRB's suitability rules are similar to FINRA's, discussed above. To provide even greater protection in the municipal securities market, MSRB Rule G-47 also requires firms and registered reps to provide **time of trade disclosures**. The rule, which applies to both primary and secondary market transactions, requires firms to disclose to customers, at or prior to the transaction, all material information known about the security that is reasonably accessible to the market. This applies to both solicited and unsolicited transactions.

7.2 Types of Risks

In addition to knowing and understanding each customer's specific situation, it is also essential for registered reps to understand the various securities products that have been discussed, as well as the different risks associated with each.

These risks have been previously discussed throughout the first few chapters, but this section provides a nice summary of them in one place, including the most susceptible investments as well as strategies to reduce each risk.

7.2.1 Call Risk

Call risk is the risk that an investment, often a bond or preferred stock, may be called by an issuer when interest rates are falling. Securities issued with a call feature allow the issuer to buy them back in order to re-issue new securities, often with a lower interest or dividend payment. Because securities are called in falling interest rate environments, investors typically lose a relatively high rate of return.

Some investments offer **call protection**, which means that the instrument cannot be called away for a certain period of time. This feature helps protect investors, as their bonds cannot be redeemed by the issuer during this period.

> ***Knopman Note:*** **Investments most at risk: Callable bonds and callable preferred stock.**
>
> **Strategies to mitigate this risk: Purchase non-callable securities.**

7.2.2 Reinvestment Rate Risk

Call risk leads to **reinvestment risk**, which is the risk that no available investments will be able to provide a return similar to that of the security that has been called. For example, an investor who holds an 8% bond receives $80 in annual interest each year. If interest rates have fallen over time, the $80 that is earned each year cannot be reinvested at the same 8% rate, as issuers are able to borrow more cheaply in the marketplace. If the investor reinvests the $80 in instruments with similar characteristics, the investor might only receive a 5% rate of return.

> ***Knopman Note:*** **Investments most at risk: Callable bonds and callable preferred stock.**
>
> **Strategies to mitigate this risk: Purchase non-callable securities or zero-coupon bonds (which have no income to reinvest).**

7.2.3 Capital Risk

The risk that an investor could lose his entire investment is referred to as **capital risk**.

For example, an investor who buys options contracts bears significant capital risk, because if the option expires out-of-the-money, the entire investment, all premiums paid, will be lost. Capital risk is often associated with more exotic investments and less with investments in stocks or bonds, as they can, but are less likely, to go all the way to zero.

> ***Knopman Note:*** **Investments most at risk: Speculative investments, such as options, penny stocks and direct participation programs.**
>
> **Strategies to mitigate this risk: Avoid speculative investments, and invest in stocks and bonds.**

7.2.4 Credit Risk

Credit risk describes the possibility that an issuer will default, i.e., miss an interest payment or be unable to return borrowed principal (par value) at maturity. To attract investors, issuers that are less creditworthy (i.e., those with higher credit or default risk) have to issue bonds with higher interest rates than issuers that are more creditworthy.

> ***Knopman Note:*** **Investments most at risk: High-yield bonds.**
>
> **Strategies to mitigate this risk: Invest in Treasury and other highly rated, fixed-income securities as well as equities.**

7.2.5 Inflationary Risk

Returns can be adversely impacted by inflation. Products that deliver a fixed rate of return, such as bonds or preferred stock, are susceptible to **inflationary risk** because their interest payments (or preferred dividends) remain constant while the cost of goods and services rises. For this reason, inflationary risk is also referred to as **purchasing power risk**.

Consider an investor who owns a 10% bond with a 10-year maturity. The bond will produce interest income of $100 each year, but in inflationary environments, that $100 buys fewer real goods and services each year. At the bond's maturity in 10 years, the return of the $1,000 par principal will also have reduced purchasing power.

> ***Knopman Note:* Investments most at risk: Fixed-income securities, including bonds and preferred stock.**
>
> **Strategies to mitigate this risk: Invest in common stock, TIPS, and REITs.**

7.2.6 Interest Rate Risk

Interest rate risk is the risk that an investment's value (its price) will change as a result of a change in interest rates. This risk affects the value of bonds, preferred stock, and other fixed products more directly than common stock. When interest rates rise, fixed-income instruments' prices fall; conversely, when interest rates fall, their prices rise—an inverse relationship exists between prices and rates.

Inflation risk and interest rate risk are related and often experienced together, as interest rates often go up with inflation. This is a real problem for fixed-income investors, for example, retirees who live on their portfolio income generated from bonds. During periods of high inflation, the retiree's coupon payments are stable, but the real purchasing power of those dollars is reduced, and, if in an effort to curb the inflation, the central bank raises interest rates, the market value of all of the retiree's bonds will fall (remember the inverse relationship).

> ***Knopman Note:* Investments most at risk: Fixed-income securities, including bonds and preferred stock, especially bonds with a lower coupon and longer maturity.**
>
> **Strategies to mitigate this risk: Invest in common stock and convertible bonds.**

7.2.7 Prepayment Risk

One interest-rate-related risk associated with mortgage-backed securities (MBS) is **prepayment risk**. When mortgage holders refinance to a lower rate, MBS holders experience an early return of their principal. Typically, mortgagees will refinance in falling-interest-rate environments, leaving the MBS holder to reinvest the capital in the lower-interest-rate environment. This could also be described as a type of **reinvestment rate risk**.

> ***Knopman Note:*** **Investments most at risk: Mortgage-backed securities.**
>
> **Strategies to mitigate this risk: Invest in other types of fixed-income securities and equities.**

7.2.8 Liquidity Risk

An investment that cannot be readily sold or converted to cash in the open market is described as having **liquidity risk** or **marketability risk**. Examples of illiquid investments include shares in direct participation programs, unlisted and non-traded investments, and real estate. Assets that are widely traded, like treasuries, blue chip stocks, and redeemable mutual funds, have very little liquidity risk.

> ***Knopman Note:*** **Investments most at risk: Direct participation programs, hedge funds, penny stocks, and municipal bonds.**
>
> **Strategies to mitigate this risk: Invest in exchange-listed stocks, ETFs, and treasuries.**

7.2.9 Political Risk

New legislation or changes in political control can significantly influence market performance. **Political risk** is encountered in both highly industrialized nations and developing countries. In unstable countries, the chance of government overthrow, war, and insurrection are typical political risks; in developed countries, terrorism, legislation changes, and elections are more likely to be political risks.

> ***Knopman Note:*** **Investments most at risk: ADRs and other foreign securities.**
>
> **Strategies to mitigate this risk: Invest in US domestic securities, though even these can be subject to US political forces.**

7.2.10 Currency Risk

Currency risk is the risk that an investment denominated in a foreign currency (e.g., the Japanese yen or the Euro) will lose value or depreciate as the US dollar strengthens. For example, if an investor owns an ADR denominated in yen, even if that company had been performing well, if the Japanese currency is devalued, the value of the ADR will be negatively affected, as an investor will receive fewer US dollars when they sell or receive dividends from the foreign security.

> ***Knopman Note:*** **Investments most at risk: ADRs and other foreign investments.**
>
> **Strategies to mitigate this risk: Invest in US domestic securities.**

7.2.11 Systematic Risk

Market risk or **systematic risk** reflects that the performance of an individual security will be impacted by the performance of the overall market. Some common sources of systematic risk are recessions, wars, significant political events, and interest rates. Though systematic risk cannot be avoided through diversification, it can be hedged with investments in derivatives, such as options contracts, as discussed earlier.

> ***Knopman Note:*** **Investments most at risk: Common stock and ETFs.**
>
> **Strategies to mitigate this risk: Purchase put options on a broad-based index.**

7.2.12 Non-Systematic Risk

Unlike systematic risk, which influences a large number of assets, **non-systematic risk**, also referred to as **business risk**, generally will not impact an investor's entire portfolio. Changes in corporate management or product recalls, which could impact a single stock, are examples of this type of risk. Corporate scandal, poor management, and changing technologies also represent business risk. Well-known examples include Volkswagen's emissions scandal, BlackBerry's inability to keep up with the smartphone revolution, and Blockbuster Video failing to adapt to streaming video.

The best protection against non-systematic risk is portfolio diversification. The rationale behind diversification is that no single investment will affect the overall return of the portfolio because each individual position makes up only a small portion of the overall portfolio.

> ***Knopman Note:*** **Investments most at risk: Common and preferred stock.**
>
> **Strategies to mitigate this risk: Diversify by purchasing many types of individual stocks or broad-based investment company securities, such as ETFs, mutual funds, and closed-end funds.**

Pop Quiz 1 *(Chapter 7)*

Match each of the following types of risk with a risk-triggering event below.

A. Capital risk
B. Political risk
C. Liquidity risk
D. Credit risk
E. Prepayment risk

_____ A bond issuer defaults on paying interest and principal.

_____ New legislation passes that significantly and negatively impacts an investment.

_____ Home mortgage holders pay down principal at a faster-than-normal rate.

_____ A company goes bust and stock investors lose all their money.

_____ An investor needs access to cash during an emergency and can't access it.

Answers to chapter 7 pop quizzes begin on page 224

Progress Check

1. What investment objective has a goal of seeking outsized investment returns in exchange for taking on much higher risk?
   A. Speculation
   B. Growth
   C. Liquidity
   D. Appreciation

2. In evaluating whether a recommendation is suitable for a customer, which of the following is *not* an important suitability obligation?
   A. Reasonable-basis
   B. Customer-specific
   C. Qualitative
   D. Quantitative

3. Under reasonable-basis suitability, the results of a due diligence investigation must show that an investment will be suitable for how many investors?
   A. At least 20
   B. At least 40
   C. At least 10% of the firm's customers
   D. At least some

4. Which type of investor can be exempt from the customer-specific suitability requirement?
   A. A foreign investor
   B. An institutional investor
   C. An accredited individual investor
   D. An investor who gives discretionary trading authority to a professional

5. John is participating in a real estate limited partnership. He is worried that the investment will go bust and he will lose his entire investment. What type of investment risk is this?
   A. Liquidation risk
   B. Catastrophic risk
   C. Capital risk
   D. Systematic risk

6. An investor who is very concerned about inflationary risk probably should avoid which type of investment?
   A. Growth stocks
   B. Income stocks
   C. Long-term US Treasury bonds
   D. Real estate limited partnerships

7. In which type of investment is prepayment risk an important factor for a registered rep to evaluate and discuss with clients, prior to recommending suitable investments?
   A. Treasury Inflation Protected Securities (TIPS)
   B. Mortgage-backed securities (MBS)
   C. Callable corporate and municipal bonds
   D. Rights and warrants

8. In which type of macro economic environment could currency risk be a very important factor in suitability analyses?
   A. Strong dollar
   B. Weak dollar
   C. High inflation
   D. Rising interest rates

Progress Check—Solutions

1. (**A**) Speculation is the objective with the highest level of risk and return potential. Generally, this objective signals that an investment is suitable only for sophisticated or experienced investors with substantial capital and ability to withstand losses.
2. (**C**) The analysis of whether a recommendation is suitable for a specific customer has three main obligations: reasonable-basis, customer-specific, and quantitative suitability. It's important to know the requirements of each.
3. (**D**) The numerical standard of reasonable-basis suitability is deliberately vague—an investment must be suitable for at least some investors. The rationale is that the firm and its registered reps must ensure that the investment is not a fraud, is not using misleading data or information, and at least has the *potential* to achieve its stated objectives.
4. (**B**) Institutional investors can be exempt from customer-specific suitability requirements if two conditions are met. First, the rep must believe the investor is capable of evaluating risks. Second, the institution must indicate it is exercising *independent judgment*. For this purpose, institutions are defined as customers having assets of *at least $50 million*.
5. (**C**) The risk that an investment will decline all the way to zero, wiping out the investor's capital, is called capital risk. It is most prevalent in buying listed options, where all premium can be lost if an option expires out-of-the-money, and in exotic or unconventional investments such as direct participation programs.
6. (**C**) Long-term US Treasury bonds are considered some of the safest investments in terms of credit quality, but they are high in one type of risk: inflationary. This is the risk that purchasing power will decline significantly over time due to high inflation. Long-term, fixed-income investments are most vulnerable. Stocks and real estate are thought to have better potential to offset high inflation.
7. (**B**) Prepayment risk is the risk that mortgages in MBS pools will prepay principal at a faster pace than anticipated, returning capital to investors that they cannot reinvest at the same yield. It is a type of risk distinctly linked to one product: MBS. Don't confuse it with call risk and reinvestment rate risk, both of which are found in callable bonds.
8. (**A**) Currency risk is the risk that investments denominated in foreign currencies will depreciate as the US dollar strengthens. An investment in a foreign stock, for example, may have low currency risk in a weak-dollar era but high currency risk in a strong-dollar era. This demonstrates why suitability analysis may need to consider not just the merits of an investment but also the macro economic and monetary policy climates.

7.3 Investment Objectives and Suitable Recommendations

Once a registered rep has evaluated the customer's specific financial and non-financial considerations and the risks of various securities products, he is then tasked with recommending a suitable investment for that investor based on the customer's objectives.

Generally, the more years that remain to reach the financial goal, the more investment risk that can be afforded. Therefore, much of the principal invested to meet long-term goals is often allocated to growth investments, such as individual stocks, stock mutual funds, and ETFs. As retirement or a short-term goal approaches (e.g., purchasing a home), it is important to shift assets into less risky, income-producing assets, such as bonds.

This section will discuss the various investment objectives—i.e., the needs customers may be trying to fulfill with their portfolios—as well as what investments are appropriate for meeting those needs.

Knopman Note: **For younger individuals with a longer time horizon till retirement, growth in the value of their assets is commonly a main objective. Investment in common stock is appropriate for this need. As individuals get older, they will begin to invest a greater percentage of their portfolios of fixed-income securities for a combination of safety and current income as they near or reach retirement.**

7.3.1 Safety and Preservation of Capital

An investor who has a **preservation of capital objective** seeks no decline in the value of her investments. The investor does not want to lose any money. Instead, emphasis is placed on protection of the invested principal and loss prevention and in return the investor is willing to accept a lower rate of return. This strategy is generally most appropriate for retirees and those approaching retirement, to help protect their nest eggs, as they may not have time to recoup their losses if a downturn in the market occurs. In addition, oftentimes a goal of safety is combined with that of generating current income to help those in retirement have enough funds to pay their ongoing expenses.

These investments pay low rates of interest and may not even outpace the rate of inflation. However, since the money will be used relatively soon, inflation will not have as large an impact on the purchasing power of these funds.

Knopman Note: **Suitable investments for this strategy: Treasury securities, money market securities, bank CDs, government bond mutual funds, and money market mutual funds.**

Inappropriate investments for this strategy: Common stock, direct participation programs, ETFs, and high-yield bonds.

Biggest risks of this strategy: Low returns and inflationary risk.

7.3.2 Current Income

For an investor with a **current income objective**, emphasis is placed on generating cash for the investor, with little focus on long-term capital appreciation. As mentioned above, this strategy might be used in conjunction with preservation of capital, especially by those at or near retirement age, or by investors willing to take on additional risk (e.g., high-yield bonds) for a greater income amount.

> ***Knopman Note:* Suitable investments for this strategy: Utility stocks, REITs, preferred stock, fixed-income securities (high-yield for more aggressive investors and Treasuries, agencies, and highly rated corporate bonds for less aggressive investors), and income-oriented mutual funds.**
>
> **Inappropriate investments for this strategy: Non-dividend-paying common stock, direct participation programs, ETFs, and zero-coupon bonds.**
>
> **Biggest risks of this strategy: Interest rate risk, credit risk (for riskier bonds), call risk, reinvestment rate risk, and prepayment risk (for MBS).**

Pop Quiz 2 *(Chapter 7)*

Check all the statements that are TRUE.

_____ As investors get older, their risk tolerance often declines.

_____ Preferred stocks can be attractive to investors seeking current income as an objective.

_____ Tech stocks can be appropriate for investors seeking preservation of capital.

_____ Money market funds have a significant amount of interest rate risk.

7.3.3 Tax-Free Income

A tax-free income objective emphasizes generating tax-free income for persons in high tax brackets.

> ***Knopman Note:* Municipal bonds are most appropriate for high-income investors.**

> ***Knopman Note:* Suitable investments for this strategy: Municipal bonds and municipal bond funds.**
>
> **Inappropriate investments for this strategy: Everything else.**
>
> **Biggest risks of this strategy: Interest rate risk, credit risk (for riskier municipalities), call risk, reinvestment rate risk, and potential tax consequences for private activity bonds.**

7.3.4 Growth

An investor with a **growth objective** is seeking capital appreciation as well as to increase the value of his portfolio over time. A pure growth investor has little focus on generating current income. Because of the uncertainty of the market, growth investors must be individuals who are willing to take on more risk and often include younger investors, who can better weather the stock market's ups and downs.

> ***Knopman Note:*** **Suitable investments for this strategy: Common stock (small-cap for more aggressive investors and large-cap for less aggressive investors), ETFs, and common stock mutual funds.**
>
> **Inappropriate investments for this strategy: Fixed-income and preferred stock.**
>
> **Biggest risks of this strategy: Market risk and business risk.**

7.3.5 Liquidity

For an investor that has a **liquidity objective**, emphasis is placed on the investor having immediate access to their funds at all times. One example of when this strategy might be prudent is an investor who will need to access her funds within the next year to purchase a home.

> ***Knopman Note:*** **Suitable investments for this strategy: Money market securities and money market funds.**
>
> **Inappropriate investments for this strategy: Direct participation programs and real estate.**
>
> **Biggest risks of this strategy: Low returns and inflationary risk.**

7.3.6 Speculation

An investor that has a speculation objective seeks outsized returns in exchange for taking on greater risk. This type of strategy is often appropriate for a high-net-worth investor, or an institution, who is able to afford to lose a portion of overall net worth.

> ***Knopman Note:*** **Suitable investments for this strategy: High-yield bonds, options, direct participation programs, and penny stocks.**
>
> **Inappropriate investments for this strategy: Money market securities, large-cap common stocks, and US government and agency securities.**
>
> **Biggest risks of this strategy: Capital risk.**

Pop Quiz 3 *(Chapter 7)*

For each investor objective shown below, indicate whether the product adjacent to it is more likely to be appropriate or inappropriate.

Objective	Product	Appropriate	Inappropriate
Tax-Free Income	Municipal bonds		
Liquidity	Real estate		
Current Income	Dividend-paying common stocks		
Capital Preservation	High-yield bonds		
Growth	Preferred stocks		
Speculation	Options		

7.4 Product Suitability Summary

The table below summarizes the various investments that have been discussed throughout this book.

> ***Knopman Note:*** **It is important to understand the products detailed below as well as their benefits and risks for investors.**

Security	Benefits	Risks
Common Stock	• Capital appreciation • Dividends • Hedge against inflation • Limited liability (at risk for only amount invested)	• Market risk • Business risk
Preferred Stock	• Fixed dividend • No fixed maturity date	• Inflationary risk • Interest rate risk • Dividends are not guaranteed
Corporate Bonds	• Safety of principal (for highly rated bonds) • Steady stream of income (interest payments) • High income (for speculative bonds)	• Risk of default • Inflationary risk • Interest rate risk
Municipal Bonds	• Steady stream of income • Safety of principal (second only to US government securities) • Federal tax-free income (and sometimes state and local tax-free)	• Credit risk (municipalities have occasionally defaulted) • Inflationary risk • Interest rate risk • Possible AMT tax implications

Security	Benefits	Risks
US Government Debt	• Steady stream of income • Highest safety of principal and interest • Liquidity • Regular income • Inflation protection (TIPS only)	• Inflationary risk (except TIPS) • Interest rate risk • Lower rates in exchange for safety
US Agency Debt	• Steady stream of income • Very safe • Higher coupon payments than Treasury securities	• Inflationary risk • Interest rate risk • Prepayment risk (for mortgage-backed securities)
Zero-Coupon Bonds	• No reinvestment rate risk • Useful when saving for a target goal, such as retirement or college education	• Credit risk • Higher volatility • No regular interest payments
Money Market Securities	• Safety • Liquidity • Minimal interest rate risk • Minimal inflationary risk	• Low return • Fluctuating income (principal is regularly being returned and must be reinvested)
Options	• Generate income (from writing options) • Hedge and protect a long or short stock position • Opportunity to buy stock for less than it is worth (long calls) • Opportunity to sell stock for more than it is worth (long puts)	• Capital risk (option expires and entire premium lost) • Unlimited risk (writing uncovered calls)
REITs	• Diversification into real estate • Capital appreciation • Dividends • Exchange-traded and therefore provide liquidity	• Business risk • Default risk (for mortgage REITs)
Direct Participation Programs (DPPs)	• Higher rates of return • Tax benefits (pass through of gains and losses)	• Liquidity risk • Capital risk
Exchange-Traded Funds (ETFs)	• Exchange-traded and therefore provide liquidity • Offer diversification • Lower fees than other types of investment companies (tracks an index and not actively managed) • Capital appreciation • Dividends	• Market risk • Business risk • Do not provide the same level of active management that some other investment company securities do
Exchange-Traded Notes (ETNs)	Offer equity exposure Investor is guaranteed return of principal (assuming issuer does not default)	Credit risk (technically they are unsecured debt) Liquidity risk (smaller market)

Security	Benefits	Risks
Unit Investment Trusts (UITs)	Offer diversification Lower fees than other types of investment companies (fixed portfolio with no active management) Share the benefits of the securities in the underlying portfolio	Do not provide the same level of active management that some other investment company securities do No secondary market (only redeemable with issuer) Share the risks of the securities in the underlying portfolio
Closed-End Funds	Offer diversification Professionally managed Share the benefits of the securities in the underlying portfolio Exchange-traded and therefore provide liquidity	Management fees Share the risks of the securities in the underlying portfolio
Mutual Funds (Open-End Funds)	Offer diversification Professionally managed Share the benefits of the securities in the underlying portfolio Liquidity (can always redeem with issuer)	Management fees Sales charges and 12b-1 fees Share the risks of the securities in the underlying portfolio No secondary market (only redeemable with issuer)

Pop Quiz 4 *(Chapter 7)*

Match each of the six investment products with the set of benefits and risks that it offers.

- Zero-coupon bonds
- Exchange-traded funds
- Direct participation programs
- REITs
- Mutual funds
- Common stocks

Benefits	Risks	Matching Product
Diversification into real estate	Business risk	
Exchange-traded liquidity	Default risk	

Benefits	Risks	Matching Product
Professionally managed	Sales charges and 12b-1 fees	
Liquidity	Management fees	

Benefits	Risks	Matching Product
Capital appreciation	Market risk	
Dividends	Business risk	

Benefits	Risks	Matching Product
Pass through of tax gains and losses	Liquidity risk	
High potential rates of return	Capital risk	

Benefits	Risks	Matching Product
No reinvestment risk	High price volatility	
Useful in targeting long-term goal	No current interest payments	

Benefits	Risks	Matching Product
Index-tracking	Lack of active management	
Low-cost	Market risk	

7.5 Portfolio Strategies and Analysis

Once all the necessary information is gathered, the next responsibility of the registered representative is to help customers build a portfolio designed to meet their investment objectives and needs. This section will discuss some of the strategies that registered representatives might implement to help create an optimized client portfolio.

7.5.1 Asset Allocation

Asset allocation involves choosing an appropriate mix of different **asset classes** to build a portfolio. The process of determining the right selection of assets to hold is specific to each customer and depends largely on the customer's time horizon, investment objectives, and risk tolerance. The objective of an asset allocation strategy is to ensure that the overall portfolio includes asset categories that react differently under different market conditions. By investing in more than one asset class, overall risk is reduced, and the investment returns will have a smoother ride.

The three major investment asset classes are stocks, bonds, and cash and cash equivalents.

- **Stocks** historically offer the highest potential reward but have the greatest risk among the three major asset categories. Their volatility makes them a risky investment in the short term, but investors that have been willing to ride out their volatile returns have generally been rewarded in the long run.
- **Bonds** are usually less volatile than stocks but offer more modest returns. As a result, an investor approaching a financial goal might increase bond holdings relative to stock holdings to reduce risk.
- **Cash and cash equivalents** are the safest investments, but offer the lowest returns. Examples include savings deposits, certificates of deposits (CDs), US Treasury bills, and money market funds, which offer little if any risk of loss to the holder. The key risk with these assets is that inflation will outpace and erode returns over time.

Once a specific target allocation mix is established, the portfolio is periodically rebalanced to return it to its original proportionate investment mix, to ensure that no single asset or asset category is overemphasized. This is referred to as **portfolio rebalancing**.

For example, assume that stock investments were intended to represent 60% of a portfolio. After a recent stock market rally, the stock investments represent 80% of the portfolio. To rebalance and reestablish the original asset allocation mix, some of the stock could be sold or additional assets from the underweighted category could be purchased.

> ***Knopman Note:*** **If a fund manager believes there may be a short-term drop in the market, they could keep excess cash in cash and cash equivalents and then buy the dip once the market drops.**

7.5.2 Diversification

The old phrase "Don't put all of your eggs in one basket" sums up the concept of **diversification**. The practice of spreading money among different investments is typically effective for minimizing portfolio losses. Ideally, with proper diversification, the loss experienced by one investment is offset by gains in another.

While asset allocation diversifies assets among asset categories, some investors may deliberately choose to concentrate their investments within a particular asset class. For example, a 25-year-old investor may choose a portfolio that includes only stocks because of the long-term investment horizon. Diversification is still important with this strategy, but in this case, it applies within the asset category, instead of between asset classes.

Mutual funds are often viewed as an easy way for investors to achieve diversification for a small amount of money. For example, a stock index fund may hold stock in thousands of companies. Because each outstanding share represents a proportionate interest in a broad portfolio, significant diversification has been achieved.

7.6 Investment Returns

Monitoring returns is an important part of the investment process. As time progresses, investors and their registered reps must evaluate investments to ensure they are achieving the intended goals. If investments are not showing positive returns, especially in comparison to market benchmarks for similar securities, it may be time to change portfolio allocation or diversify into different economic sectors. To free up money to make new purchases, it may be appropriate to sell investments that underperformed and review overall asset allocation to ensure it aligns with the investor profile and risk tolerance.

This section will review total return, which is an important metric for investors.

7.6.1 Total Return

Total return encompasses all of the money that is made on an investment, including income from dividends and interest, price changes while the investment is held, and, ultimately, capital gains or losses when the investment is sold. Total return is typically evaluated over a defined time period, such as a year or a quarter, and can be positive or negative.

Total return can be calculated for various investments, though for this exam, the calculations for equity and bondholders are relevant.

> ***Knopman Note:*** **Make sure to know the components of total return for equity and debt described below.**

7.6.1.1 Total Return on Equity

The total return on a stock investment includes dividends received plus any increase or decrease in the price of the stock over the period. The calculation can be performed using realized or unrealized gains and losses, depending on whether the stock has been sold.

$$\text{Total Return on Equity} = \frac{\text{Dividends + Capital Gains*}}{\text{Initial Purchase Price}}$$

* If the position is sold at a loss, the capital loss should be subtracted.

7.6.1.2 Current Yield of Common Stock

Another way to evaluate the return on common stock is by calculating its current yield, which is the annual dividend divided by the current market price. Make sure that if a quarterly dividend is provided that you annualize it by multiplying by four.

Example

XYZ stock is trading at $15 and pays a quarterly dividend of $0.30.

Current Yield = ($0.30 × 4)/$15 = 8%

Knopman Note: **Make sure to know how to calculate current yield.**

7.6.1.3 Total Return on Bonds

For bonds, total return includes the interest earned during the time period and the principal repaid at maturity, if the bond is held to maturity. If the bond is sold before maturity, the difference between the price paid at purchase and the price received at the sale is added (or subtracted, if sold at a loss) to the interest income.

$$\textbf{Total Return on Bonds} = \frac{\textbf{Interest Income + Capital Gains*}}{\textbf{Initial Purchase Price}}$$

* If the bond is held to maturity and returns the par value, there is not a capital gain or loss. Instead, the difference between the purchase price and par value is used.

Pop Quiz 5 *(Chapter 7)*

Charles bought a bond for $950, and it has matured at par value, $1,000. Over the life of his holding, he received a total of $200 in interest coupons. What is his total return over the full holding period?

A. 12.9%
B. 16.7%
C. 21.2%
D. 26.3%

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 7)*

D A bond issuer defaults on paying interest and principal.
B New legislation passes that significantly and negatively impacts an investment.
E Home mortgage holders pay down principal at a faster-than-normal rate.
A A company goes bust and stock investors lose all their money.
C An investor needs access to cash during an emergency and can't access it.

Pop Quiz 2 *(Chapter 7)*

X As investors get older, their risk tolerance often declines.

X Preferred stocks can be attractive to investors seeking current income as an objective.

_____ Tech stocks can be appropriate for investors seeking preservation of capital.

_____ Money market funds have a significant amount of interest rate risk.

Pop Quiz 3 *(Chapter 7)*

Objective	Product	Appropriate	Inappropriate
Tax-Free Income	Municipal bonds	X	
Liquidity	Real estate		X
Current Income	Dividend-paying common stocks	X	
Capital Preservation	High-yield bonds		X
Growth	Preferred stocks		X
Speculation	Options	X	

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 7)*

Benefits	Risks	Matching Product
Diversification into real estate	Business risk	REITS
Exchange-traded liquidity	Default risk	

Benefits	Risks	Matching Product
Professionally managed	Sales charges and 12b-1 fees	Mutual funds
Liquidity	Management fees	

Benefits	Risks	Matching Product
Capital appreciation	Market risk	Common stocks
Dividends	Business risk	

Benefits	Risks	Matching Product
Pass through of tax gains and losses	Liquidity risk	Direct participation programs
High potential rates of return	Capital risk	

Benefits	Risks	Matching Product
No reinvestment risk	High price volatility	Zero-coupon bonds
Useful in targeting long-term goal	No current interest payments	

Benefits	Risks	Matching Product
Index-tracking	Lack of active management	Exchange-traded funds
Low-cost	Market risk	

Pop Quiz 5 *(Chapter 7)*

(D) To determine the total return of a bond holding over the full holding period, add the interest income and the capital gain or loss. Then, divide that result by the initial purchase price. In this case: $200 + $50/$950 = $250/$950 = 26.3%.

Unit Exam

1. An elderly customer seeks no decline in the value of her investment portfolio. This objective is:
   A. guaranteed principal.
   B. capital preservation.
   C. price stability.
   D. liquidity.

2. Can an individual customer ever opt out of customer-specific suitability requirements?
   A. Yes, by filing a written statement that verifies investment experience or sophistication
   B. Yes, by making all of her own investment decisions
   C. Yes, by having at least $50 million of total assets
   D. No, because only sophisticated organizations are allowed to opt out

3. If an investment fails to qualify under reasonable-basis suitability, under what circumstances can it be recommended to a customer?
   A. Only if the customer is a sophisticated institution
   B. Only if it qualifies under both customer-specific and quantitative suitability standards
   C. Only if the customer waives reasonable-basis suitability
   D. Never, because passing reasonable-basis suitability is essential for any recommendation and any customer

4. Which suitability standard requires registered representatives to follow the know-your-customer (KYC) rule?
   A. Quantitative
   B. Customer-specific
   C. Reasonable-basis
   D. Both reasonable-basis and customer-specific

5. Which type of investment is the most vulnerable to credit risk?
   A. High-yield bonds
   B. Mortgage-backed securities (MBS)
   C. Small-cap stocks
   D. Money market mutual funds

6. As a registered rep, Clyde has determined that an investment is suitable for a certain client. However, he believes there is a substantial amount of liquidity risk in it. What could Clyde suggest to address this particular risk so that the client could go ahead with the investment?
   A. Increase portfolio diversification
   B. Increase portfolio liquidity
   C. Buy the investment in a retirement plan
   D. Hedge the investment

7. For an investor who owns a substantial portfolio of stocks, when will systematic risk be high?
   A. In a bull market for stocks
   B. In a bear market for stocks
   C. When interest rates are rising
   D. When inflation is rising

Unit Exam (Continued)

8. Which one of the following investments would not be compatible with an investor objective of preservation of capital?

   A. Dividend-paying common stock
   B. Short-term Treasury securities
   C. Bank CDs
   D. Money market mutual funds

9. What will determine whether a common stock is a suitable investment for a customer with an objective of achieving current income?

   A. Whether the market is rising or falling
   B. Company size and stability
   C. Consistency of stock dividend payments
   D. The stock's track record

10. Which of the following investment objectives would be met by investing in preferred stock?

    A. Growth
    B. Tax-free income
    C. Current income
    D. Preservation of capital

11. Patrick is setting aside money for his retirement in 20 years, and he wants capital appreciation with a high degree of predictability and safety. Which of the following investments can best meet his need?

    A. Money market mutual funds
    B. Long-term, zero-coupon US Treasuries
    C. Long-term municipal bonds
    D. None, because his two objectives are not compatible

12. Paul has an objective of tax-free income, and his broker recommends that he consider mutual funds. What will determine whether this is a suitable recommendation for him?

    A. The rate of income the fund pays
    B. The fees and expenses of the fund
    C. The track record of the fund
    D. The type of securities the fund holds

13. Mildred's financial planner has suggested that she participate in an asset allocation program. What is the most important benefit of such a program?

    A. Current income
    B. Diversification
    C. Capital appreciation
    D. Safety

14. The Morrisons have an asset allocation program set up for their children's college educations. Lately, the stocks in this program have been performing well and the bonds have been performing poorly. If the portfolio is rebalanced, what effect will this event have on the program's asset mix?

    A. Buy more stocks, sell bonds
    B. Sell stocks, buy more bonds
    C. Add money and buy both stocks and bonds
    D. Subtract money and sell both stocks and bonds

Unit Exam (Continued)

15. One year ago, Don bought a stock at a price of $40, and it is now worth $35. He has received two dividends of 50 cents each. What has been the total return?

    A. −12.5%
    B. −10.0%
    C. Zero
    D. +2.5%

16. A broker recommends a series of short-term trades in a mutual fund to a customer. The broker determined that the mutual fund was suitable for this customer and carefully documented all know-your-customer information. Yet, regulators later found that the trading strategy was not suitable for the client. On what grounds?

    A. Failure to perform adequate reasonable-basis suitability
    B. Failure to perform adequate quantitative suitability
    C. Failure to perform adequate customer-specific suitability
    D. Short-term trading strategies are never suitable.

Unit Exam—Solutions

1. (**B**) Preservation of capital, or capital preservation, is an objective that has the goal of no decline in the value of an investment or portfolio. Most money market mutual funds have this objective because they endeavor to maintain a net asset value of $1 at all times.
2. (**C**) Institutional investors can be exempt from customer-specific suitability if the rep believes they are capable of evaluating investment risk on their own and they opt out by indicating they will exercise their own judgment in evaluating recommendations. For this purpose, individuals with at least $50 million of total assets qualify as institutions.
3. (**D**) Reasonable-basis suitability determines that an investment is suitable for at least some investors. If the investment fails to meet this standard, it cannot be recommended to anyone by that firm.
4. (**B**) Reasonable-basis suitability is not customer-specific. Quantitative suitability considers whether a recommendation fits into the customer's entire portfolio and asset mix. It is customer-specific suitability that matches each investment recommendation to the investor profile and considers know-your-customer information.
5. (**A**) Credit risk measures the potential for an issuer to default on bond interest or on paying bond principal due at maturity.
6. (**B**) An investment that cannot be readily sold or converted to cash in the open market has liquidity risk. Examples include real estate, limited partnerships, and hedge funds with lock-ups. The illiquid character of these investments cannot be changed, and it also usually cannot be hedged. The risk is that an investor will need access to cash but will not be able to obtain it. To address this, the client can increase liquidity in the rest of his portfolio, so cash can be obtained from other sources.
7. (**B**) Systematic risk reflects the performance of an individual security that is impacted by the direction of the overall market. For owners of stocks, it is highest in a bear (falling) stock market. Since systematic risk is symmetrical, it also exists in a bull market. But it generally helps stock investors in this case, by putting the tailwind of the market behind their stocks' performance.
8. (**A**) An investor with a preservation of capital objective seeks no decline in the value of the investment or portfolio. Stocks are not compatible because they can decline in value. Short-term Treasuries, bank CDs, and money market funds have very stable principal values.
9. (**C**) Stocks only generate current income from their dividends, which are somewhat predictable, not their appreciation, which is not predictable. However, stock dividends are not guaranteed, so it's important to evaluate not only the rate of dividends paid but also the consistency of historic dividend payments.

Unit Exam—Solutions (Continued)

10. (**C**) Preferred stock does not have much growth potential and is not stable enough in price to preserve capital. Preferred dividends can be attractive to investors with a current income objective. Since preferred dividends are taxable, investors seeking tax-free income should look elsewhere.

11. (**B**) The objectives of capital appreciation and safety are somewhat incompatible. However, long-term, zero-coupon US Treasuries can meet both objectives. Since interest is not currently paid but builds up inside the bond and is paid at maturity, it is actually a form of capital appreciation (the bond will be worth far more at maturity). The lack of reinvestment risk helps meet the need for predictability and safety.

12. (**D**) Mutual funds can be used to pursue diverse investment objectives, depending on how funds are managed and what securities they hold. The type of mutual fund that is compatible with an objective of tax-free income is a municipal bond fund.

13. (**B**) Asset allocation programs choose an appropriate mix of different asset classes to build a portfolio. These classes typically include stocks, bonds, and cash. The objective is to ensure the overall portfolio includes asset classes that react differently under changing market conditions—i.e., that the portfolio is well diversified. Often, the program will make periodic adjustments to keep the asset class mix appropriate for the current environment, as well as the investor's life phase and objectives.

14. (**B**) When asset allocation programs are rebalanced, the goal is to return asset classes to their original weights, to ensure that no class is over-emphasized. This means that recent winners will be sold and recent losers will be bought. Rebalancing can be done automatically and mechanically or it can use a professional manager's discretion. In either case, the goal is to compensate for market actions and keep the asset allocation guidelines intact.

15. (**B**) The formula for calculating total return over a holding period is to add the dividends and capital gains and divide the result by the initial purchase price.
    +$1 − $5 = −$4.
    −$4/$40 = −10%.

16. (**B**) Quantitative suitability considers the account's turnover rate and the use of in-and-out trading to determine whether a client is being abused. It is not based on any products in the account but rather the overall pattern of holdings and trading. Quantitative suitability is especially important in short-term trading strategies.

Section 2:

Knowledge of Capital Markets

In addition to having a fundamental knowledge of the various types of securities products, SIE candidates must understand the manner in which these securities are issued by corporations and governments in the primary market, and then traded between investors in the secondary market. This section will review the process of selling securities to the public, either through the SEC-registration process or through an exemption, as well as the involvement of underwriters in the process. From there, the section will delve into the different marketplaces where these securities trade and the types of orders investors place to buy and sell these securities. Finally, it will review the economic environment in which these securities exist and how it impacts these products.

Chapter 8: Issuing Securities

Chapter 9: Secondary Market and Equity Trading

Chapter 10: Economics and Monetary Policy

KNOPMANMARKS
FINANCIAL TRAINING

8. Issuing Securities

When corporations or governments are in need of additional capital, they can sell equity or debt securities to both institutional and retail investors. New issues are sold in the **primary market**, and a broker-dealer's investment banking department is often engaged to assist the issuer in determining how best to structure the offering and distribute the securities. A group of firms working together in this process is called a **syndicate**, and the firms that share financial risk in the offering are **underwriters**.

This chapter will discuss the process of selling new issues of securities to investors, including registering the securities with the SEC, exemptions from SEC registration, and the role of investment banks in this process.

Chapter Goals

- Know the role of the SEC in the new-issue process.
- Describe the SEC-registration process, and know the timeline of events.
- Understand the exemptions from SEC registration.
- Compare and contrast each firm's role within the syndicate.
- Distinguish between a firm commitment and a best efforts underwriting.
- Be able to calculate the underwriting spread.
- Learn who is restricted from purchasing an initial public offering of common stock.
- Describe some of the unique aspects of municipal bond underwriting.

Key Terms

- **Securities Act of 1933**—A federal law designed to prohibit fraud and ensure that investors receive all material information relating to new issues by requiring new securities to be SEC-registered, unless the security is exempt or sold in an exempt transaction
- **Registration statement**—A legal document companies file with the SEC to register their securities for legal sale to the public
- **Exempt securities**—Securities, including US government and agency securities, municipal bonds, nonprofit securities, commercial bank securities, and short-term corporate debt, that are exempt from SEC-registration requirements

- **Exempt transactions**—Transactions, including private placements, and intrastate offerings, that are exempt from SEC-registration requirements due to the manner of sale
- **Private placement**—An exempt transaction that allows a company to raise new capital privately, without public sale, and avoid SEC registration
- **Syndicate**—A group of investment banks that work together to help an issuer market and sell securities to the public by sharing in the risk of the offering
- **Firm commitment**—The most common type of underwriting, in which the syndicate buys the shares from the issuer and resells them to the public, taking on financial liability for whatever cannot be resold
- **Best efforts**—A type of underwriting in which the underwriters act as agents and have no financial responsibility for any unsold securities
- **Underwriting spread**—The compensation that the syndicate receives in an underwriting, calculated as the difference between what the underwriters pay the issuer compared to the public offering price that investors pay for the shares
- **Restricted person**—A type of individual or entity, including FINRA member firms, their employees, attorneys and accountants of the lead underwriter, and immediate family members of these individuals, that is prohibited from purchasing an IPO of common stock

8.1 SEC-Registration Process

The **Securities Act of 1933**, also called the **Truth in Securities Act**, requires all securities to be registered with the Securities and Exchange Commission (SEC) unless the security is exempt or sold in an exempt transaction. The **'33 Act** was enacted to achieve two basic objectives:

- To require that investors receive significant and material information concerning securities being offered for public sale, and
- To prohibit deceit, misrepresentations, and other fraud in the sale of securities to the public

The '33 Act was the first major federal legislation to regulate the offer and sale of securities and to require the provision of sufficient information for investors. Disclosure of material information is accomplished through the registration of securities with the SEC. As part of this process, issuers must compile an investor disclosure document, known as the **prospectus**, and provide it to potential purchasers at or prior to the sale of securities. The SEC does not approve an issue for sale or verify the information that has been submitted through the registration process; its purpose is to ensure that sufficient information is available for investors to make informed decisions.

> ***Knopman Note:*** **The SEC never approves or disapproves of securities. Instead it clears the securities for public sale.**

8.1.1 The Registration Statement

In order to register securities, issuers must file with the SEC a **registration statement**, which contains all material information about the company as well as the securities being issued. The registration statement details:

- The name, address, and location of the company and a description of business
- A list of **insiders**, which include officers (e.g., CEO and CFO), board members, and greater than 10% stockholders
- The names of the underwriters and legal counsel involved
- The amount and planned use of the proceeds being generated through the offering
- Any legal proceedings against the issuer, and
- Recent certified financial statements of the issuer

It's important to note that during the period before the registration statement is filed, also known as the **pre-filing period** or **quiet period**, there typically can be no marketing of the securities and no offers or sales to the public.

> ***Knopman Note:*** **Prior to the registration statement being filed, there can be no marketing of the securities or sales to the public.**

8.1.2 Cooling-Off Period

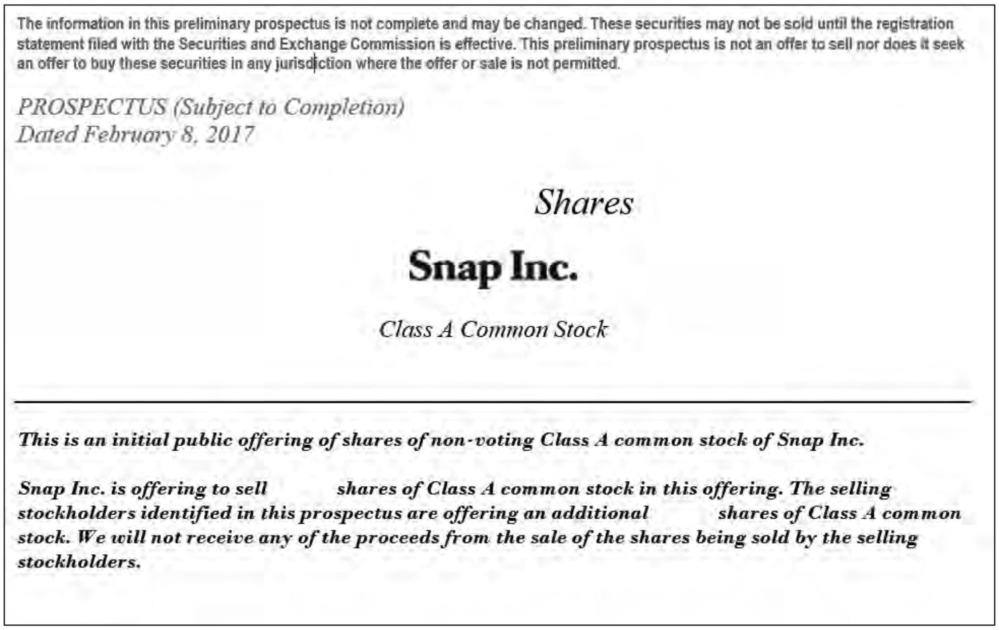
The time from the filing of the registration statement until the SEC declares the registration effective is considered a **cooling-off period**. During this period, which typically lasts for at least 20 days, two events are simultaneously taking place: the SEC is reviewing the filings for adequate disclosures as required under securities law, and separately, the investment bankers are determining market interest and a potential price for the new shares.

To promote the new issue, a **road show** typically occurs. During a road show the issuer and lead underwriter meet with prospective investors to present the offering. Road shows are designed to provide potential investors with additional information about the issuer and business and give them a more personal opportunity to evaluate the offering.

During this time, the underwriter will distribute a **preliminary prospectus**, also referred to as a "**red herring**," to potential investors. The preliminary prospectus contains information similar to that of the registration statement, which investors can use to evaluate the securities. Typically, the preliminary prospectus will contain a range of potential prices for the issue, but will not contain the final price. The document is nicknamed the "red herring," as the cover contains red ink that states that the preliminary prospectus is not actually an offer to investors and that sales can only be made with the final prospectus.

> ***Knopman Note:*** **The preliminary prospectus will generally not include the timely details of the transaction—for example, the number of shares being registered and the offer price—as these details are determined during the cooling-off period. This information would be found in the final prospectus.**

For context, a picture of SNAP's red herring for its 2017 IPO appears below. Notice the red cautionary language and the missing share count and offer price. During the cooling-off period, the underwriter will gauge the demand to determine the exact size and pricing of the offering.


The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)
Dated February 8, 2017

Shares

Snap Inc.

Class A Common Stock

This is an initial public offering of shares of non-voting Class A common stock of Snap Inc.

Snap Inc. is offering to sell shares of Class A common stock in this offering. The selling stockholders identified in this prospectus are offering an additional shares of Class A common stock. We will not receive any of the proceeds from the sale of the shares being sold by the selling stockholders.

The goal of these marketing tools is to collect **indications of interest (IOIs)**—non-binding indications that an investor might be interested in purchasing the shares. These IOIs help the underwriters ascertain demand and ultimately the public offering price for the issuance. For example, a high number of IOIs will lead the underwriter to set a higher price for the securities, as it indicates greater demand, whereas fewer IOIs might force the underwriters to set the price lower in order to generate additional interest. Although they are not promises to buy, IOIs typically become orders on the effective date unless cancelled by the investor.

Other communications permitted during the cooling-off period include:

- **Tombstone ad—**A basic deal announcement that might be published by the underwriter in a newspaper or financial magazine. This advertisement contains factual information about the offering, including the name of the issuer, a brief description of the business, the names of underwriters, and the type of securities.
- **Free writing prospectus (FWP)**—Allows issuers to provide additional information to investors beyond what is in the registration statement or prospectus. Thus, issuers can provide new and ongoing information during the registration process without having to redo their registration statement or preliminary prospectus. This communication can be written or graphic. Examples of an FWP include a press interview with the issuer's CEO and a recorded, online road show.

It's important to note that during the cooling-off period, because the SEC has not yet granted effectiveness, there can be no offers or sales of securities made to the public.

Knopman Note: **During the cooling-off period, marketing of the securities is permitted, but no sales can be made.**

8.1.3 Effective Date

Once the bankers have gauged investors' interest in the new shares and determined the best price, the issuer will seek effectiveness from the SEC. If the SEC is satisfied that adequate and necessary disclosures have been made, the registration statement will be declared effective. On the **effective date**, the shares can be lawfully sold to the public.

All investors in the new issue must receive a copy of the **final prospectus** no later than the settlement date of the transaction (T + 2). The final prospectus is not required to be physically delivered to investors. Instead, **access equals delivery**, meaning that delivery is met as long as the final prospectus has been filed with the SEC and a notice is sent to each purchaser stating that it's available and where it can be accessed. The final prospectus includes all of the information from the company's initial registration statement, but now, with the final offering price, it is an actual offer of the securities.

Knopman Note: **All buyers of a new issue must receive a final prospectus no later than the settlement date. Additionally, a prospectus or notice of its availability must be delivered with sales of shares for 25 days following an IPO.**

Notice SNAP's final prospectus below. The offer price and the number of shares have been filled in, and the cautionary language from the red herring has been removed.

Filed Pursuant to Rule 424(b)(4)
Registration No. 333-215866

PROSPECTUS

200,000,000 Shares

Snap Inc.

Class A Common Stock

This is an initial public offering of shares of non-voting Class A common stock of Snap Inc.

Snap Inc. is offering to sell 145,000,000 shares of Class A common stock in this offering. The selling stockholders identified in this prospectus are offering an additional 55,000,000 shares of Class A common stock. We will not receive any of the proceeds from the sale of the shares being sold by the selling stockholders.

Pop Quiz 1 *(Chapter 8)*

Which of the following activities normally take place during the cooling-off period of a securities offering?

I. Distribution of a red herring
II. Taking indications of interest
III. Selling shares to the public
IV. Conducting a road show

A. I and II
B. II and III
C. I, II, and III
D. I, II, and IV

Answers to chapter 8 pop quizzes begin on page 259

8.1.4 Registration Timeline

The chart below summarizes the sequence of events in a registered offering.

Time Period	Events
Pre-Registration Period	Bake-off—Banks pitch investment banking services. Mandate—Issuer awards mandate to winning investment bank by signing an engagement letter. Registration statement (S-1), prospectus, and offering materials are prepared. Due diligence of S-1 is conducted to ensure accurate, complete, and truthful information.
Filing Date	*File the registration statement (S-1) with the SEC*
Cooling-Off Period (20 days)	SEC reviews the registration statement for adequate disclosures. Bankers conduct a road show and market the deal. Investors give non-binding indications of interest (IOIs).
Effective Date	*The SEC declares the registration effective (the securities can now be lawfully sold)*
Post-Effective Date	Bankers confirm IOIs and allocate shares to investors. Securities begin trading in the secondary market (NYSE or Nasdaq).

Knopman Note: **Be sure to review the timeline above.**

8.2 Exemptions from SEC Registration

As mentioned previously, all securities must be registered with the SEC unless they are exempt or sold in an **exempt transaction**. This section will focus on exempt securities and transactions, which are legal ways to offer and sell securities without registering with the SEC. It's important to note that all securities and securities transactions, even exempt ones, are subject to anti-fraud provisions and that issuers remain responsible for false or misleading statements.

> ***Knopman Note:*** **A registration statement and prospectus is not required in an exempt transaction. However, investors will still receive some disclosure documents that provide information about the offering. These are sometimes referred to as an *offering memorandum*.**

This section will discuss the exempt securities and various exempt transactions, including those under Rule 147, Regulation D, Rule 144, Rule 144A, and Rule 145.

> ***Knopman Note:*** **Candidates should know all the exempt securities and exempt transactions under the '33 Act.**

8.2.1 Exempt Securities

Certain securities are exempt from the registration process discussed above, regardless of how they are sold. These securities are not required to file a registration statement with the SEC or distribute a prospectus to potential investors. **Exempt securities** include:

- US government securities and US government agency securities
- Securities issued by nonprofits
- Municipal bonds
- Commercial paper and other short-term corporate debt with a maximum maturity of no more than 270 days
- Commercial bank securities

Note that the exemption for securities sold by banks applies specifically to those sold by commercial banks. Securities of investment banks and of bank holding companies are not exempt from registration.

> ***Knopman Note:*** **Any security not listed above is non-exempt, meaning it must be SEC-registered. For example, corporate bonds, stocks, ADRs, and investment company securities must all be registered.**

Pop Quiz 2 *(Chapter 8)*

For each type of security listed below, check whether it is exempt or non-exempt from SEC registration.

Security Type	Exempt	Non-Exempt
Commercial bank bond		
REIT		
Commercial paper		
US Treasury bond		
Municipal bond mutual fund		
Municipal bond		
Exchange-traded security		

8.2.2 Rule 147—Intrastate Offerings

The Securities Act of 1933 includes an exemption that facilitates the financing of local business operations. **Rule 147** allows a company to sell securities within its home state and avoid SEC registration. In order to use this intrastate offering exemption, the company must have its principal place of business in the state and satisfy at least *one* of the following requirements:

- At least 80% of the gross revenues come from doing business within the state
- At least 80% of its assets are located in that state
- At least 80% of the net proceeds from the offering are used in the state, or
- A majority of the employees are located in the state

Additionally, 100% of the securities must be sold to state residents.

Purchasers of Rule 147 securities are required to hold the securities for a minimum of six months before selling them to someone who resides outside the state. Resales to residents of the state are not subject to a holding period.

Example

ABC Co. is a New York-based company, which has a majority of its employees located in New York City. Under Rule 147, ABC can sell securities to New York state residents without SEC registration. Investors cannot resell the shares outside of New York for six months.

Under Rule 147, there is no limit on the size of the offering or number of purchasers.

Knopman Note: **Rule 147 allows a company to sell securities to state residents only and avoid SEC registration. These state residents can sell to other residents of the state immediately, but must wait at least six months before selling outside the state.**

> ***Knopman Note:* A company can raise capital overseas (e.g., Microsoft selling in Europe) and avoid SEC registration via the exempt transaction Regulation S.**

8.2.3 Regulation D—Private Placements

Another method of sale that avoids SEC registration is a private placement. In a **private placement**, an issuer offers securities to a select universe of potential buyers, often operating on a much smaller scale for cost savings and faster access to capital. There is no public offering of the securities, and therefore they are not required to be SEC-registered.

Example

Uber, a private company, can raise capital through a private placement by selling stock privately to investors such as Goldman Sachs and Fidelity.

Regulation D of the '33 Act governs private placements and defines the types of permitted investors. All types of private placements allow for **accredited investors**, who are assumed to be sophisticated, i.e., knowledgeable about the securities industry. These include:

1. Individuals with a net worth of at least $1 million, excluding the value of their primary residence
2. Individuals with income exceeding $200,000 in each of the two most recent years, or joint income with a spouse exceeding $300,000 for those years, and a reasonable expectation of the same income level in the current year
3. Officers, partners, and directors of the issuer
4. Institutional investors with $5 million in assets

Because they are sophisticated, an unlimited number of accredited investors can participate in a private placement.

> ***Knopman Note:* Make sure to review the requirements for individuals and married couples to qualify as accredited.**

Anyone who is not defined as accredited is considered a **non-accredited investor**. Although in practice a number of different types of Reg D transactions with various requirements exist, for exam purposes it is important to know that, generally, a maximum of 35 non-accredited investors can participate in a private placement.

> ***Knopman Note:* Generally, a maximum of 35 non-accredited investors can participate in a private placement.**

Private placements allow a company to raise an unlimited amount of capital; however, for all private placements, restrictions apply on the resale of the securities, meaning they cannot be sold without registration or an applicable exemption.

> ***Knopman Note:*** **Private investment in public equity (PIPE) is when a public company raises capital in a private placement (for example via a Regulation D offering). A public company may do a PIPE to raise capital quickly and avoid registration.**

8.2.4 Rule 144—Restricted and Control Stock

Rule 144 defines the conditions under which securities acquired through an exempt transaction, or restricted from resale for other reasons, can be sold. It defines both restricted and control securities.

8.2.4.1 Restricted Stock

Restricted stock is stock that has never been SEC-registered. Investors can receive restricted stock through private placements, employee stock benefit plans, compensation for professional services, or in exchange for providing seed money or start-up capital to the company.

Restricted stock must be held for a certain period of time before being sold. The holding period is a minimum of six months for securities issued by companies subject to reporting requirements of the Securities Exchange Act of 1934, and at least one year for those from issuers that are not subject to these reporting requirements or that are not filers in good standing with the SEC.

There must also be adequate current information about the issuer before the sale can be made. For example, securities of a private company that does not file financials would not be eligible for sale under Rule 144. Put differently, only shares of a public company can be sold through this rule.

Example

Joe was a very early investor in Facebook, purchasing shares of Facebook in 2007. Therefore, Joe owned restricted shares of Facebook. In order to resell these shares to the general public, two things needed to happen: 1) Joe needed to hold the shares for at least six months and 2) Facebook needed to be a public company. Therefore, once Facebook conducted its IPO in 2012, Joe could freely sell his shares of Facebook into the public market because he had held these shares for well over six months and now Facebook is public.

8.2.4.2 Control Stock

Control stock are shares held by an affiliate of the issuing company. An **affiliate**, also referred to as a **corporate insider**, is commonly defined as being either:

- An officer of the company (e.g., CEO or CFO)
- A member of the board of directors, or
- An individual owning more than 10% of the voting shares

A limit is imposed on the number of shares that an affiliate may sell during any three-month period. Over any 90-day period, the shares sold cannot exceed the greater of:

- 1% of the outstanding shares of the same class being sold, or

- The average reported weekly trading volume during the four weeks preceding the sale

If the securities being sold by the affiliate are also restricted, the holding period of six months or one year also applies.

8.2.4.3 Rule 144 Summary

Below is a summary of the resale requirements under Rule 144:

Sale of Restricted Securities by Affiliates	Sale of Restricted Securities by Non-Affiliates	Sale of Registered Securities by Affiliates
Holding period of six months or one year	Holding period of six months or one year	No holding period
Volume limits apply to sale	Volume limits do not apply to sale	Volume limits apply to sale

Knopman Note: **Summary of Rule 144:**

- **Control stock is subject to a volume restriction. This amount can be calculated and then sold once every 90 days.**
- **Control stock is not subject to a six-month holding period.**
- **Restricted stock is subject to a six-month holding period, but not a volume restriction.**

Pop Quiz 3 *(Chapter 8)*

Check all the situations under which a Rule 144 sale of restricted or control stock is allowed *now*.

______ Restricted stock in a private company has been held for two years. The company has not gone public.

______ Restricted stock has been held for eight months. It was acquired when the company was private. The company has since gone public and now files reports with the SEC.

______ Restricted stock was acquired in a benefit plan of a public company, and it has been held for nine months.

______ Control stock is not restricted, and the owner wishes to sell 500 shares. The company has one million shares outstanding and average weekly trading volume of 50,000 shares.

8.2.5 Rule 144A—Qualified Institutional Buyers

Rule 144A allows unregistered securities to be sold to **qualified institutional buyers (QIBs)** without registration. To be a QIB, the institution must manage a securities portfolio of at least $100 million. Broker-dealers with a securities portfolio of at least $10 million are also considered QIBs.

Rule 144A increases the liquidity of unregistered securities by enabling a more liquid and efficient institutional resale market. The most common uses of Rule 144A include the issuance of high-yield debt and the issuance of pre-IPO shares.

Example

Uber, a private company, previously sold shares to Goldman Sachs through a Reg D private placement. If Goldman wants to cash out on its investment, it can freely sell the Uber shares to a QIB, such as Fidelity.

***Knopman Note:* A qualified institutional buyer (QIB) is an institution that manages a securities portfolio of at least $100 million. Rule 144A permits QIBs to freely trade unregistered securities among themselves.**

8.2.6 Rule 145—Reclassification of Securities

Rule 145 is designed to protect the shareholders of a company that proposes to reclassify its ownership structure, acquire another business, or merge with another company. The premise of Rule 145 is that investors are essentially being offered a new security in the joint company, so they are entitled to the same disclosures and protections as if it were a new securities offering, including that the securities be SEC-registered and the receipt of a prospectus.

Three types of transactions are covered:

- **Reclassifications**—A change that involves the substitution of one security for another, except for a stock split, reverse stock split, or change in par value. For example, an offer to swap one class of debt security for another may be a reclassification.
- **Mergers and acquisitions (M&A)**—Securities, generally the stock of one company (the purchaser), are exchanged for those of another (the target), usually to facilitate a combination of the two issuers, for reasons other than a change in the issuer's location of domicile. For example, Amazon purchases Whole Foods, or Microsoft purchases LinkedIn, to combine the businesses. Take note that instead of the purchaser buying the target in stock, it could alternatively buy the target in a cash purchase or with a mix of both stock and cash.
- **Transfers of assets**—Securities are issued to investors as compensation for assets transferred from one company to another in a transaction other than a full dissolution or pro-rata distribution to all shareholders.

Exchange offers, in which a company exchanges new debt or equity securities for its outstanding securities, often as part of a restructuring, may qualify for an exemption from registration under the '33 Act. To qualify, the old and new securities must have the same issuer, with no additional consideration paid by the securities holder. The offering must be limited to existing securities holders, with no remuneration paid for the exchange solicitation. Examples include stock splits and stock dividends.

8.2.6.1 Tender Offer

Exchange offers, discussed above, are a type of tender offer. Although **tender offers** are not specifically covered under Rule 145, SIE candidates must be familiar with them. A tender offer is an offer by the issuer or an outside investor to purchase at least 5% of the company's shares directly from company shareholders. The purchaser making the offer, whether it be the issuer itself or an outside investor, can attempt to purchase the shares using cash or securities. When securities are used, it is referred to as an **exchange offer**.

Generally, to entice shareholders to sell, the purchaser will offer them a premium price over the current market price. For example, if their shares are worth $20, shareholders might be offered $23 to sell. Each individual shareholder must then decide whether to accept the terms and sell his shares. If a shareholder decides to sell, he can only sell up to the number of shares he owns. Put differently, an investor cannot short into a tender.

Example

If Ben owns 1,000 shares of ABC Co., he can only sell 1,000 in a tender offer. He is not allowed more than the number of shares he owns.

Additionally, the purchaser making the offer might qualify a tender with a minimum number of acceptable shares. This means that unless shareholders agree to sell a certain number of shares, the investor making the offer will not go through with any purchases.

Example

XYZ Co. is looking to purchase up to 20 million shares of Cola Co.'s stock at a price of $30 per share. ABC Co. sets a minimum threshold of 15 million shares. If the shareholders of Cola Co. only agree to tender 10 million shares collectively, ABC Co. will not go through with any purchases since the minimum threshold was not met.

Knopman Note: **A purchaser in a tender offer can qualify the tender with a minimum number of acceptable shares.**

If a tender offer is oversubscribed, the shares are accepted proportionally from those shareholders who tendered.

Example

If an investor seeks to purchase 10 million shares in a tender offer, but shareholders collectively tender 100 million shares, only 10% of each shareholder's shares would be accepted. If a shareholder tendered 1,000 shares, only 100 of their shares (10%) would actually be accepted.

Knopman Note: **Note that all shareholders receive the exact same price in a tender offer. This is sometimes referred to as *all holders best price*.**

Progress Check

1. For a shareholder to be considered an insider, they must:
   A. be an active participant in managing the company.
   B. be an original owner of the company, prior to its going public.
   C. be in a position of knowing important inside information about the company.
   D. own more than 10% of the company's shares.

2. During the cooling-off period for an IPO, which of the following activities is *not* permitted?
   A. Sending investors a red herring
   B. Marketing the offering through a road show
   C. Offering shares to investors for purchase
   D. Taking indications of interest from investors

3. Jackson is a broker who is getting his clients involved in an IPO. The effective date of the offering is Monday, June 4. One of his clients buys shares on June 5. Although a final prospectus has been filed with the SEC, he does not deliver one in hard copy. Rather, on June 7 he sends the client a notice indicating where the final prospectus can be accessed online. Has he committed a prospectus violation?
   A. Yes, because he should have delivered a final prospectus before the client purchased shares
   B. Yes, because he should have delivered a final prospectus on June 5
   C. Yes, because he should have delivered a hard-copy version of the final prospectus, not an electronic copy
   D. No, because he has met the requirements for final prospectus delivery

4. Karen is a vice president of a tech company that went public eight months ago. She received Rule 144 restricted stock before the IPO. When can she sell this stock and what is the minimum holding period before she can sell it?
   A. She can sell it now; the minimum holding period is six months.
   B. She can sell it one year after the IPO; the minimum holding period is two years.
   C. She can sell it in four months; the minimum holding period is one year.
   D. She can't sell it for some time; the minimum holding period begins with the IPO and is two years.

5. Which one of the following is *not* a qualified institutional buyer (QIB)?
   A. An insurance company with a securities portfolio of $250 million
   B. A pension fund with a securities portfolio of $80 million
   C. A broker-dealer with a portfolio of $60 million
   D. A mutual fund company with a securities portfolio of $1 billion

6. Which one of the following is *not* permitted in a private placement offering?
   A. 75 accredited investors
   B. 50 non-accredited investors
   C. $15 million offering size
   D. $100 million offering size

Progress Check (Continued)

7. Which statement is accurate regarding the SEC'S role in a company's registration process?
   A. The SEC approves of the new issue.
   B. The SEC confirms the accuracy of the issuer's registration statement.
   C. The SEC does not review a company's registration statement.
   D. The SEC clears the issuer's securities for public sale.

8. During the cooling-off period, what type of advertisement is permitted, for purposes of promoting a securities offering?
   A. Any that is truthful and summarizes facts contained in the registration
   B. Any print (but not online) ad in a reputable newspaper or periodical
   C. Tombstone only
   D. None

Progress Check—Solutions

1. (**D**) The term insiders includes all officers, directors, and shareholders owning more than 10% of a company.
2. (**C**) The cooling-off period begins with the filing of a registration statement and ends on the effective date. During this period, a preliminary prospectus (red herring) can be sent and road shows can be conducted to drum up indications of interest. However, no offers or sale of shares are allowed until the effective date, which is the date the SEC permits sale.
3. (**D**) The final prospectus must be delivered by the trade settlement date, which is T + 2. In this case, that is June 7. Clients can be pointed to where they can find an electronic version of the final prospectus, if two conditions are met. First, a valid final prospectus must have been filed with the SEC. Second, a timely notice must be sent to each purchaser indicating where to access the document online. "Timely" in this case means by settlement.
4. (**C**) Rule 144 restricted stock has not been SEC registered. The minimum holding period is six months for securities issued by public companies meeting reporting requirements. It is one year for other securities. She acquired the shares at a time when the company was not public, so her minimum holding period is one year. Now that the company has gone public, she can freely sell shares in four months since she has already held for eight months.
5. (**B**) Under Rule 144A, unregistered securities can be sold to QIBs, institutions that manage securities portfolios of *at least $100 million*. However, broker-dealers with securities portfolios of at least $10 million are also QIBs.
6. (**B**) Private placements allow an issuer to raise an unlimited amount of capital. In doing so, there is no limit on the number of accredited investors that can participate, but there can only be a maximum of 35 non-accredited investors.
7. (**D**) The SEC is responsible for clearing a company's securities for public sale and reviewing the registration statement to ensure all required information is included. However, they do not approve or disapprove of the securities or fact check the information in the registration statement.
8. (**C**) The only advertisement permitted during the cooling-off period is a tombstone—in which the underwriter announces the deal and its key terms. The tombstone ad must be limited to certain facts about the deal and its participants, and it must state that shares *cannot* be purchased until the effective date.

8.3 Underwriting Process

When companies want to register stocks and bonds and sell them to the public, they typically enlist the help of an investment bank. A group of banks working together to market a deal is referred to as a **syndicate**. The syndicate will guide the company through the SEC-registration process and is responsible for marketing and ultimately selling the securities to the public.

The remainder of this chapter will discuss the role investment bankers play in this process, as well as the various types of offerings they assist with, the different types of underwriting commitments they use, the responsibilities of each firm in the syndicate, how these firms are compensated, and their part in the post-issuance process.

8.3.1 Types of Offerings

An issuer's sale of securities can be classified as either an **initial public offering (IPO)** or a **follow-on offering**.

An IPO is the first public offering of a company's securities. It allows the issuer to publicly raise capital and might give private shareholders—founders, early employees, etc.—a public market for valuing and selling their stock. Investment bankers help private companies assess the best timing for IPOs along with the initial offering price that will attract sufficient investor enthusiasm.

A follow-on offering occurs when an issuer that already has publicly traded securities sells additional stock to the public. These offerings raise additional equity capital for companies, or help large shareholders dispose of blocks of company stock, after the IPO.

Example

Because Apple is a publicly traded company that has already had an IPO, if it does another stock offering, it would be considered a follow-on.

Certain large companies that meet SEC requirements are allowed to conduct follow-on offerings using a **shelf registration**. Different from a normal registration, a shelf allows an issuer to pre-register equity or debt securities today and sell them at a later date. A shelf registration is valid for up to three years after the filing date and gives issuers the flexibility to raise capital in financial markets whenever conditions are most favorable, without the need for a separate registration or prospectus at that time.

Shelf offerings can be used for both equity and debt securities; however, they are not permitted to be used for an IPO.

> ***Knopman Note:*** **A shelf registration allows an issuer to preregister securities today and sell them at a later date when market conditions are favorable. A shelf is good for up to three years and can only be used for a follow-on offering, never for an IPO.**

Further classifications of offerings are:

- **Primary offering—**A new issue in which the issuer sells shares and receives all the proceeds. In this situation, the company is creating brand new shares to sell.
- **Secondary offering—**An offering in which a shareholder sells shares held in the issuing corporation, and proceeds of the offering belong to that shareholder. For example, a company's founder, an angel investor, or a venture capital firm liquidates a sizable position in the company. If a transaction is a secondary offering, the company's net worth will be unchanged, as all proceeds will be received by existing shareholders. No new shares are created in this scenario.
- **Split offering**—A combination of primary and secondary offerings. This is very common, as large shareholders may choose to sell shares alongside the company in a registered offering.

Typically, the prospectus cover's first paragraph will disclose whether the issue is an IPO or a follow-on and whether the shares are being offered by the company (i.e., primary), selling shareholders (i.e., secondary), or a combination of the two (i.e., split).

Example

A company registers to sell the shares of a director (an existing shareholder) and a private equity shop (an existing shareholder), but does not register any primary (new) shares. The prospectus would identify this deal as a secondary offering, because only existing shareholders are selling.

Knopman Note: **Make sure to know the difference between a follow-on offering and secondary offering.**

8.3.2 Choosing an Underwriter

Once the issuer decides to sell securities, it will select its underwriter through either a negotiated underwriting or a competitive bid process. In a **negotiated underwriting**, the terms of the offering are determined between the issuer and a single underwriter. The issuer will meet with a number of prospective underwriters and decide which it is most comfortable working with based on a variety of factors, such as pricing, sector expertise, and rapport. The process by which firms compete to win the mandate is called a **bake-off** or **pitch**.

In a **competitive bid**, underwriters submit to the issuer sealed bids to sell the securities. The issuer awards the contract to the underwriter with the best price.

Most corporate underwritings are structured through a negotiated process. Select municipal bond deals are awarded via a competitive bid.

The terms and conditions of the public offering and the agreement between the issuer and the underwriter are formalized in a contract known as the **underwriting agreement**.

Pop Quiz 4 *(Chapter 8)*

Indicate where on the timeline of a securities offering each of the following events normally takes place, from earliest, 1, to latest, 4.

_____ Delivery of preliminary prospectus

_____ Filing of registration with SEC

_____ Effective date

_____ Bake-off

8.3.3 Types of Underwriting Commitments

Once an underwriter is selected, there are different ways the underwriting can be structured. The most common type of underwriting is a **firm commitment**, in which the underwriters agree to purchase all shares that are to be offered and then resell them to the public. If part of the new issue goes unsold, those shares are distributed among the members of the syndicate. Put differently, the underwriters are taking on risk, as they are liable for any unsold shares.

A **standby commitment** is a type of firm commitment that is used in conjunction with a rights offering. As discussed in a previous chapter, a **rights offering** allows current shareholders to maintain their proportionate ownership in the company if additional shares are issued. If current shareholders decide not to subscribe to this rights offering and purchase the additional shares, the underwriter standing by will purchase them and then look to resell them to the public. This arrangement ensures that all the shares will be sold either to existing shareholders or the underwriters.

A **best efforts** is an underwriting agreement in which the underwriters attempt to sell all the securities but have no obligation to buy any unsold shares. These agreements are usually used for private placements and other offerings of risky securities.

An **all-or-none** is one type of best efforts where if the underwriter is unable to sell all the shares within a certain period, the entire deal will be cancelled.

A **minimum-maximum (mini-max)** is a type of best efforts where the deal will be cancelled unless a minimum amount is raised. Once the minimum threshold has been reached, it becomes a traditional best efforts underwriting.

> ***Knopman Note:* In a firm commitment, the underwriter has risk, whereas in a best efforts, the underwriter acts as an agent and has no financial liability for the securities.**

8.3.4 Underwriting Syndicate

In some situations, one broker-dealer is the sole underwriter for a new issue. In most circumstances, however, securities are distributed through syndication, which is when a group of investment banks, known as an **underwriting syndicate**, agrees to work together to underwrite the offering and share the risks of distributing it. Risk-sharing is especially important on firm commitment offerings, in which underwriters purchase the securities from the issuer and then have responsibility for reselling them.

8.3.4.1 Syndicate Manager and Members

The underwriting syndicate is led by a **lead underwriter**, or **managing underwriter**, who is the primary liaison for the issuer. In forming a syndicate, the lead underwriter invites other investment banks to participate in a joint distribution of the offering. These other **syndicate members** usually commit to distributing a certain percentage of the entire offering. The members share the risks of underwriting the issue with the managing underwriter and are held financially responsible for any unsold portions. The syndicate is a temporary group that dissolves after completion of the sale.

The terms established between syndicate members are found in the **agreement among underwriters (AAU)**.

8.3.4.2 Selling Group

A **selling group** is comprised of broker-dealers that sell an allotment of the newly issued securities on behalf of an underwriter or syndicate members. These firms differ from syndicate managers because they do not have liability for any unsold securities. Instead, the selling group acts as agents on the deal. The syndicate sells the securities to the selling group members at a mark-up from its price but still at a discount from the public offering price, and any shares they cannot distribute are returned to the underwriting syndicate. The **selected dealer agreement** stipulates the terms for the selling group.

> ***Knopman Note:*** **Unlike the manager or members, the selling group does not take on any financial risk for the securities.**

8.3.4.3 Building a Book

Once this syndicate is bound together, their main responsibilities are to **build a book**, meaning market the offering to potential investors and collect indications of interest. This book-building process occurs during the cooling-off period, after the registration statement has been filed. Underwriters and selling group members can obtain IOIs through phone calls, in-person meetings with investors, or road show presentations. The goal is to drum up and ascertain demand for the offering as well as to determine where to price the new issue.

Although orders cannot be confirmed during the cooling-off period, IOIs usually become orders when the deal is effective.

8.3.5 Underwriting Compensation

The compensation to the syndicate in an underwriting is the **underwriting spread**. The **spread** is calculated as the difference between what the underwriters pay an issuing company per share and the **public offering price (POP)**, which is the price the public must pay to purchase the securities. The size of the spread depends on the negotiations between underwriters and the company. The spread increases with the amount of risk the underwriters take on.

Example

The syndicate buys stock from the issuer at $40 a share and then offers it at an IPO price of $43. The spread is $3 per share.

Pop Quiz 5 *(Chapter 8)*

Answer the following questions by choosing *one or more* of the following answers:

- Lead underwriter
- Syndicate members
- Selling group

1. Bears the risk for unsold shares in a firm commitment deal ____________________
2. The winner of a bake-off ____________________
3. Is governed by terms of the agreement among underwriters (AAU) ____________________
4. Has no liability for any unsold securities ____________________

8.3.6 Restrictions on IPO Offerings

As the underwriters market and ultimately sell shares to investors starting on the effective date, there are some restrictions regarding the investors they can actually sell to. FINRA Rule 5130 is designed to protect the integrity of equity IPOs by requiring underwriters to make bona fide public offerings. Thus, the rule prohibits the sale of new issues to "restricted persons." Note that, although restricted persons cannot purchase an initial public offering, they are free to purchase the shares when they begin to trade in the secondary market.

Restricted Persons

The term **restricted person** is fairly expansive. It covers:

a. FINRA member firms and their employees

b. Finders and fiduciaries (e.g., attorneys and accountants) of the managing underwriter

c. Portfolio managers in their personal investment accounts, and

d. Immediate family members of restricted persons

Under this rule, family members are defined as a spouse, parents, in-laws, siblings, children, and anyone else to whom a restricted person provides material (i.e., financial) support. Material support is defined as providing more than 25% of a person's income.

The definition of family member does not include aunts and uncles, grandparents, nieces and nephews, ex-spouses, or cousins; so, these people can invest in an IPO, absent any other restriction.

Knopman Note: **Make sure to know who is a restricted person and the definition of immediate family under this rule.**

8.3.7 Underwriter Post-Effective Date

Once the underwriters successfully sell shares on the effective date, their duty is not over. Instead, the underwriters want to ensure that the new-issue price increases once the shares begin to trade in the secondary market. If the stock price rises above the initial public offering price, it indicates that the investing public believes in the future upside of the business and that the syndicate successfully marketed the company. In contrast, a falling stock price would convey the opposite.

Stabilization, which is one of the primary post-issuance responsibilities of the underwriter, is discussed below.

8.3.7.1 Stabilization

Stabilization allows the underwriter to bid on a new issue in the secondary market to prevent a decline in price. Typically, the syndicate manager takes on the responsibility of stabilizing.

Stabilization activity may not be designed to manipulate a higher price. Specifically, a stabilization bid cannot be made at a price higher than the public offering price.

Knopman Note: **The syndicate manager can never stabilize above the public offering price.**

Stabilization bids are heavily regulated under the SEC's Regulation M and must be announced in advance. Additionally, the fact that the underwriters may stabilize must be disclosed in the prospectus.

Knopman Note: **Regulation M is an SEC rule that aims to prevent market manipulation of IPOs and follow-on offerings by broker-dealers.**

Pop Quiz 6 *(Chapter 8)*

Match each of the following terms with the appropriate description.

A. Syndicate
B. Insiders
C. Best efforts
D. Stabilization
E. Firm commitment

_____ Actions taken by underwriters to support the offering and prevent a share-price decline

_____ All officers, directors, and greater-than-10% shareholders of a company

_____ Investment banks that share risks and responsibilities in a securities offering

_____ An underwriting in which underwriters take the risk for any unsold securities

_____ An underwriting in which underwriters act as agents, without responsibility for unsold securities

8.4 Municipal Bond Underwriting

This chapter has focused on the process of selling new issues of securities to investors, especially through the lens of corporate offerings. Although municipal securities are exempt from registration, as previously mentioned, their underwriting process and the players involved are largely similar to what has been discussed, from the role of the underwriting syndicate members and the breakdown of the spread. However, some unique rules and characteristics apply to municipal bond underwritings, and SIE candidates should be familiar with these.

8.4.1 Municipal Syndicate New-Issue Practices

MSRB Rule G-11 addresses practices that municipal firms must follow when involved in primary offerings of municipal securities.

8.4.1.1 Priority of Orders

A key aspect of Rule G-11 relates to the priority provisions that must be established within each municipal bond syndicate. These provisions detail that the syndicate must allocate the bonds to investors in a certain order, regardless of the sequence in which orders were received from customers. This priority is relevant if there are more orders from investors than there are bonds to be sold.

These priority provisions are especially important in the context of municipal bonds. Unlike with corporate deals, for municipal bonds the syndicate can begin accepting orders prior to being awarded the underwriting business by the municipality. Having an established priority helps ensure fairness and that no investor receives specialized treatment.

The standard order priority is:

1. Presale orders
2. Group orders
3. Designated orders
4. Member orders

Presale Orders

Presale orders are entered *before* the syndicate is awarded the underwriting business. Presale customers are willing to commit to buying bonds without information on exact prices or yields. These orders are filled first, as they are most beneficial for the syndicate since they allow the underwriters to pitch for the business more aggressively, knowing that they will have orders in place if they do win the right to conduct the underwriting. All members of the syndicate will get a cut of presale orders based on their percentage participation in the underwriting.

Group Orders

These are the first orders that come in after the syndicate has been awarded the business, but prior to each syndicate member receiving its allocations of bonds to sell. Similar to presale orders, proceeds of sales from **group orders** are placed in the syndicate account and allocated to all syndicate members based on their pro-rata participation in the syndicate.

Designated Orders

Designated orders specify which syndicate member or members are to receive credit for the order. These orders are often placed by institutional customers. Designated orders have a lower priority, as they only benefit the firm that sold the bonds, rather than the syndicate as a whole.

Member Orders

The last of the orders to be filled are **member orders**. These are orders placed by members of the syndicate that wish to purchase for their own inventory or related accounts. Related accounts include investment portfolios and proprietary mutual funds. These have the lowest priority because they only benefit one particular firm within the syndicate.

8.4.1.2 Settlement of the Syndicate Account

After the issue is sold, the syndicate manager is responsible for settling the syndicate account and paying the syndicate members their owed profits according to their participation in the underwriting. Final settlement of the syndicate account must be completed within 30 calendar days of the delivery of securities to the syndicate.

8.4.2 SEC Rule 15c2-12

When corporate securities are sold to the public, investors must receive a prospectus, which details all material information about the issuer. Because municipal securities are exempt from registration, a prospectus is not required. In addition, although the MSRB regulates municipal securities professionals, it does not have the ability to directly regulate the issuers or require them to provide investors with relevant financial or other material information. However, because of the ongoing concern over disclosure of the financial condition of municipal issuers, SEC Rule 15c2-12 aims to deter fraud and manipulation in the municipal securities market by prohibiting the underwriting of and subsequent recommendation of securities for which adequate information is not available.

This rule requires broker-dealers to ensure through a written agreement with the issuer that current information about municipal issuers and their securities is available to investors. The requirement is imposed on broker-dealers because the SEC, similar to the MSRB, is prohibited from imposing disclosure rules on issuers. Put differently, this rule is a roundabout way of regulating the issuers, through the regulation of the broker-dealers they do business with.

8.4.2.1 Application of Rule 15c2-12 to Primary Offerings

The new-issue provisions of the rule require the underwriters to obtain, review, and distribute to investors copies of the issuer's official statement. They must also file this information with the MSRB.

8.4.2.2 Additional Requirements of Rule 15c2-12

Requirements are also imposed on broker-dealers to ensure that municipal issuer information is kept current after the underwriting is complete. Specifically, the rule bars broker-dealers from engaging in a municipal securities underwriting unless the issuer has agreed in writing to provide continuing disclosure, such as annual financial information and material event notices. Again, this rule is imposed on broker-dealers because the SEC cannot regulate issuers of municipal securities.

Annual Financial Information

Audited financial statements, if available, along with other financial information, are to be provided by the issuer, and must be submitted to the investing public on an annual basis. This helps investors analyze the financial health and operating condition of the issuer.

Material Event Notices

Updates of material information that may impact the issuer's financial condition must also be shared with the public. Examples include rating changes, defaults, and events affecting the tax-exempt status of the security.

Material event notices must be submitted to the MSRB within 10 business days of the event.

8.4.3 New-Issue Documents and Information

As mentioned above, issuers are required to provide certain disclosure information to investors when new issues of municipal securities come to market. This is to ensure potential municipal securities investors have access to sufficient information to make informed investment decisions. MSRB Rule G-32 legislates the type of information that must be provided to investors no later than the settlement date of the transaction.

As mentioned, the primary disclosure document used for this purpose is the **official statement**, which is usually prepared on behalf of the issuer by its legal counsel and financial advisers. Official statements are subject to standard SEC disclosure requirements and must not include any untrue statements of material facts or omit material facts. The information included in the official statement is similar to what is found in a registration statement.

Additionally, because the final version of the official statement is not generally available until the terms of the offering are finalized, a **preliminary official statement** can be used to provide investors with information about the new issue. The preliminary official statement serves a similar purpose as the preliminary prospectus, or red herring, discussed earlier in this chapter.

Even if a preliminary official statement has been provided to investors, they must receive the final official statement when available.

> ***Knopman Note:*** **All investors in a new issue of municipal bonds must receive the official statement no later than the settlement date of the transaction.**

8.4.4 CUSIP Requirement for New Issues

CUSIP numbers are identification numbers assigned to all securities. They are essential in facilitating the good delivery of securities and ensuring that the securities that are delivered match those that were purchased. MSRB Rule G-34 addresses the application requirements for CUSIP numbers for new issues of municipal securities.

Specifically, here are rules for assigning CUSIP numbers to new issues:

- In a negotiated sale, the underwriter is responsible for requesting the CUSIP number by pricing.
- In a competitive sale, the municipal advisor should apply no later than one business day after sending out the notice of sale, which is a document that invites bids in a competitive deal. If there is no advisor, then the underwriter must apply immediately after receiving notification of the award from the issuer.

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 8)*

(D) The cooling-off period begins with the filing of a registration and ends on the effective date. A preliminary prospectus (red herring) can be distributed to prospective investors and indications of interest (IOIs) can be taken. Road show presentations are held to drum up interest. However, sales of shares may not take place until the effective date.

Pop Quiz 2 *(Chapter 8)*

Security Type	Exempt	Non-Exempt
Commercial bank bond	X	
REIT		X
Commercial paper	X	
US Treasury bond	X	
Municipal bond mutual fund		X
Municipal bond	X	
Exchange-traded security		X

Note that while individual municipal bonds and US government securities are exempt, mutual funds and other types of investment companies (e.g., ETFs) holding these securities are non-exempt.

Pop Quiz 3 *(Chapter 8)*

______ Restricted stock in a private company has been held for two years. The company has not gone public. **Only shares of public companies can be sold under Rule 144.**

______ Restricted stock has been held for eight months. It was acquired when the company was private. The company has since gone public and now files reports with the SEC. **Since the stock was acquired when the company was private, the minimum holding period is one year. It can be sold in four months.**

__X__ Restricted stock was acquired in a benefit plan of a public company, and it has been held for nine months.

__X__ Control stock is not restricted, and the owner wishes to sell 500 shares. The company has one million shares outstanding and average weekly trading volume of 50,000 shares.

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 8)*

__3__ Delivery of preliminary prospectus

__2__ Filing of registration with SEC

__4__ Effective date

__1__ Bake-off

Pop Quiz 5 *(Chapter 8)*

1. Bears the risk for unsold shares in a firm commitment deal **lead underwriter, syndicate members**
2. The winner of a bake-off **lead underwriter**
3. Is governed by terms of the agreement among underwriters (AAU) **lead underwriter, syndicate members**
4. Has no liability for any unsold securities **selling group**

Pop Quiz 6 *(Chapter 8)*

__D__ Actions taken by underwriters to support the offering and prevent a share-price decline

__B__ All officers, directors, and greater-than-10% shareholders of a company

__A__ Investment banks that share risks and responsibilities in a securities offering

__E__ An underwriting in which underwriters take the risk for any unsold securities

__C__ An underwriting in which underwriters act as agents, without responsibility for unsold securities

Unit Exam

1. US federal law requires that securities issuers give potential purchasers a disclosure document at or prior to the initial sale of securities, to assure that investors have enough information to make informed decisions. The document is called:
    A. a tombstone.
    B. a prospectus.
    C. an official statement.
    D. a blue sky disclosure.

2. During the pre-filing period, which type of information can be sent to prospective investors to help them understand the terms of an upcoming offering?
    A. Tombstone
    B. Solicitation of an indication of interest
    C. Summary red herring
    D. None

3. For an IPO, what is the most important factor in influencing the underwriter's determination of the best initial price at which to offer securities to the public?
    A. The financial needs of the issuer
    B. Indications of interest
    C. SEC pricing guidelines
    D. Road show attendance

4. Which one of these types of securities is non-exempt?
    A. Commercial bank securities
    B. US government securities
    C. Direct participation programs
    D. Municipal bonds

5. Which of the following circumstances can seriously jeopardize the exemption from registration of a Rule 147 intrastate offering?
    A. The issuer uses 10% of the offering proceeds out of state.
    B. The issue is sold to two out-of-state investors.
    C. The issuer has 40% of its employees out of state.
    D. Of the issuer's gross revenues, 15% are out of state.

6. Which one of the following investors qualifies as a Reg D accredited investor?
    A. Jim, who has a net worth of $1.5 million, including a home worth $600,000
    B. Beth, who has income of $250,000 this year and $175,000 last year
    C. The Smiths, a married couple, with combined income of $250,000 year after year
    D. Alvin, who has a net worth of $1.2 million and does not own a home

7. How many non-accredited investors are generally permitted in a private placement?
    A. None
    B. 15
    C. 35
    D. Unlimited

8. A director of ABC Corp wants to sell stock that is control but not restricted. The company has one million shares outstanding. Its average weekly trading volume in these shares is 5,000 shares per week. What is the maximum amount of control stock she can sell?
    A. 5,000 shares in a 30-day period
    B. 5,000 shares in a 90-day period
    C. 10,000 shares in a 90-day period
    D. 20,000 shares in a 60-day period

Unit Exam (Continued)

9. A large company takes advantage of a provision in US federal security law that enables it to raise capital in financial markets whenever conditions are favorable, without filing a separate registration or prospectus. This is called a:
   A. tendering.
   B. follow-on offer.
   C. shelf registration.
   D. legend registration.

10. Who sells shares in a split offering?
    A. Two companies that share the same registration
    B. Both the company and one or more of its shareholders
    C. Both the company and underwriters
    D. Holders of more than one security, such as equity and convertible bonds

11. Which shares are underwriters obligated to purchase in a standby commitment deal?
    A. All that are not sold to the public
    B. All that are not sold to the public, up to a predetermined limit
    C. Those not subscribed to by current shareholders under a rights offering
    D. Those that current shareholders wish to sell to the public but which the public does not buy

12. Who generally takes on the risk of buying shares from the issuer in a firm commitment underwriting?
    A. The lead underwriter only
    B. Members of the syndicate
    C. Members of the selling group
    D. All securities firms that wish to participate

13. Which statement is false regarding a shelf registration?
    A. It is good for up to three years.
    B. It can be used for a follow-on offering.
    C. It can be used for an IPO.
    D. It can be used for both debt and equity securities.

14. Kevin is the 30-year-old son of an employee at a FINRA firm who wants to get in on the IPO of a hot tech company. Can he participate in the IPO? If he cannot, can his spouse, Mary?
    A. Both Kevin and Mary can participate.
    B. Kevin can't participate, but Mary can.
    C. Mary can participate only if she buys shares in an individual account, not a joint account.
    D. Neither can participate.

15. Donald is a restricted person for purposes of a hot IPO, but he really wants to get some shares. So, he puts in an order to buy shares in the name of his 15-year-old son, a dependent. Is this legal?
    A. Only if Donald and the son jointly own the account
    B. Only if the son agrees to hold the shares for at least six months and never transfer them to Donald
    C. No, because the son is financially dependent on Donald and can't own a brokerage account in his own name
    D. Yes, provided the shares are bought by the son in his own account

16. In what type of underwriting do the underwriters act as agents, with no financial responsibility for any unsold securities?
    A. Best efforts
    B. Limited interest
    C. Firm commitment
    D. Public tender

Unit Exam—Solutions

1. (**B**) The prospectus is the most important disclosure document given to investors. A copy must be given to each prospectus investor, at or prior to the initial purchase of an offering in the primary market.

2. (**D**) The pre-filing period occurs prior to the filing of a registration statement with the SEC. In this phase, there can be no marketing of the securities, no advertising, and no offers or sales to the public. Legally, the offering does not yet exist.

3. (**B**) During the cooling-off period, underwriters are allowed to solicit indications of interest (IOIs), which are nonbinding indications that investors may be interested in buying shares. It is these IOIs, especially from large institutions, that carry the most weight in setting the initial offering price. The financial needs of the issuer and road show attendance can also have some influence.

4. (**C**) Securities exempt from SEC registration requirements include US government and agency securities, municipal bonds, securities issued by nonprofits, commercial paper, and commercial bank securities. All other securities are non-exempt, meaning they must be SEC registered.

5. (**B**) To qualify under Rule 147, all securities must be sold to state residents. Even one out-of-state investor can jeopardize the exemption. Shares may not be resold to out-of-state buyers for at least six months.

6. (**D**) Individuals can meet Reg D accredited investor tests based on *either* income or net worth. The net worth test of $1 million is always for one person and excludes the value of a primary residence. The income test effectively takes into account three years (the current year and the last two) and can be met on an individual or joint-with-spouse basis. It is $200,000 for an individual and $300,000 with a spouse.

7. (**C**) Regulation D typically allows an unlimited number of accredited and a maximum of 35 non-accredited investors to participate in a private placement.

8. (**C**) The maximum amount of control stock an affiliate can sell in a 90-day period is the greater of 1% of outstanding shares or the average reported weekly trading volume in the four weeks preceding the sale. In this case, 1% of one million shares (10,000) is greater.

9. (**C**) A shelf-registration allows a large public issuer to file a registration statement that can cover several follow-on offerings of equity or debt securities at a later date. On the registration, the issuer leaves the offering dates and amounts blank. Offerings may then be made for up to three years under one shelf registration.

10. (**B**) A split offering combines features of a primary offering, in which the company sells shares and receives proceeds, and a secondary offering, in which shareholders sell shares and receive proceeds. This is common when insiders and affiliates wish to take advantage of an IPO to cash out their shares.

Unit Exam—Solutions (Continued)

11. (**C**) Standby offerings are made in conjunction with rights offerings. The company authorizes shares for purchase by current shareholders, to help them maintain proportionate ownership under a rights offering. The shares not bought by shareholders are absorbed by the underwriters.

12. (**B**) A firm commitment often represents too big of a risk for any one firm to take on. The financial strength of the full underwriting syndicate usually stands behind it. Members of the selling group are broker-dealers (not necessarily investment bankers) who agree to distribute shares to customers, but they do not take on the financial risks of the offering.

13. (**C**) A shelf registration allows an issuer to preregister debt and/or equity securities today and sell them at a later date when market conditions are favorable. A shelf is good for up to three years and can only be used for a follow-on offering, never for an IPO.

14. (**D**) Restricted persons cannot participate in IPOs, and both Kevin and Mary are restricted persons, as immediate family members of a FINRA firm employee. A restricted family member includes a spouse, parent, in-law, sibling, and child. Kevin is a child and Mary is an in-law of the FINRA firm employee.

15. (**C**) Immediate family members of restricted persons, including spouses, siblings, children, and in-laws, are also restricted and cannot purchase an IPO of common stock.

16. (**A**) Most underwritings are firm commitments, in which the underwriting syndicate buys shares from the issuer and resells them to the public. The syndicate has the risk for unsold shares. In a best efforts basis, the underwriters do not buy shares and have no legal responsibility for unsold shares.

9. The Secondary Market and Equity Trading

The **secondary market** is where investors can buy and sell securities directly with one another. The depth and liquidity of the secondary market is one of the primary reasons that the US capital markets are so attractive to issuers and investors alike. This chapter will address the main markets where equities trade and the different rules governing those marketplaces. We will also look at how firms that are the intermediaries between customers and the equities markets serve their clients and the different order types available to customers when trading securities.

Chapter Goals

- Compare a firm's role in executing a trade as a broker versus a dealer.
- Describe the purpose of a stock exchange and distinguish between the New York Stock Exchange and Nasdaq.
- Explain the meaning of the bid and ask and the various quote requirements.
- Define OTC securities and describe the venues where they trade.
- Understand the different types of customer orders and the purpose of each.
- Know the various rules and laws regulating the secondary market.

Key Terms

- **Securities Exchange Act of 1934**—A federal law that regulates the secondary market trading of securities
- **Broker**—A firm that arranges a securities trade by matching up a buyer and seller, charging each client a commission for the completed transaction
- **Dealer**—A firm that trades its own inventory with a customer, acting as the client's counterparty, charging the investor a mark-up (when selling to the client) and a mark-down (when buying from the client)
- **Market maker**—A firm that has an inventory of a particular stock and stands ready to both buy and sell those shares at quoted prices during normal market hours
- **Bid**—The price a market maker is willing to pay to buy shares from a customer
- **Ask**—The price at which a market maker is willing to sell shares to a customer

- **Stock exchange**—A physical or electronic venue, such as the New York Stock Exchange or Nasdaq, that acts as a marketplace where securities can easily be bought and sold by investors
- **OTC securities**—A security that is not found on a national exchange and instead trades over-the-counter (OTC), quoted on a facility such as the OTC Markets or OTC Bulletin Board
- **Third market**—Where exchange-listed securities trade over-the-counter
- **Market order**—A customer order that guarantees immediate execution at the best available price
- **Limit order**—A customer order to buy or sell shares at a specific price or better, designed to guarantee a price, but not execution
- **Stop order**—A customer order, generally used to prevent a loss or protect a profit, that becomes a market order once a security's price reaches a specific level

9.1 The Securities Exchange Act of 1934 ('34 Act)

The **Securities Exchange Act of 1934 ('34 Act)** regulates the secondary market, including the US financial markets and their participants, requiring that participants be registered. All US exchanges and over-the-counter markets are subject to the SEC's oversight, as are broker-dealers and their representatives who transact securities business. It regulates the purchase, sale, and exchange of securities in the capital markets. One of the most significant parts of the '34 Act is its **anti-fraud provisions**, which specify that firms and representatives cannot use any act, practice, or course of business for fraud or the deception of any investor. Included in these prohibitions are untrue statements of material fact and omissions or misrepresentations of material facts.

> ***Knopman Note:*** **The '33 Act regulates the new-issue (i.e., primary) market, whereas the '34 Act regulates the secondary marketplace.**

Essentially, the anti-fraud provisions provide that firms and their representatives shouldn't lie, cheat, or steal.

9.1.1 Fraudulent Activities

The '34 Act forbids all forms of direct or indirect manipulation of securities prices. These prohibitions apply to both securities that are registered and exempt securities.

An investor who has been injured due to the price manipulation of others is entitled to sue for damages and costs. A suit must be brought against an alleged violator within three years of the manipulative activity and within one year of discovery. These time limits are referred to as the **statute of limitations**.

9.1.2 Misrepresentations and Material Information

The '34 Act specifies that firms and representatives cannot use any act, practice, or course of business for fraud or deception of any investor. Included in these prohibitions are untrue statements of material fact, and omissions or misrepresentations of material facts. **Material**

information makes a difference to an investor when making a decision. Investors must have access to the material information necessary for making investment decisions. Intentionally withholding material facts is as misleading as intentionally misstating them.

9.2 Activities of Broker-Dealers

Broker-dealers are in the business of buying and selling securities for themselves and their clients, including retail and institutional investors. Broker-dealers execute transactions as **brokers**, matching willing counterparties, or as **dealers**, trading against their customers.

Because a fundamental goal of securities laws is to prevent manipulation, which undermines fairness and independence in the markets, as the gatekeepers to the markets, broker-dealers are subject to considerable regulation governing how they conduct business, the fees they can charge, the disclosures they must make, and the rules they must follow.

9.2.1 Market-Making

A **market maker** is a special type of broker-dealer that has agreed to “make a market” in a particular stock. Making a market means that the broker-dealer agrees to be ready and willing to buy and sell a particular security at its quoted prices during normal market hours (9:30 am–4:00 pm). When a firm becomes a market maker, it is entitled to certain benefits in the market, but it also takes on obligations.

9.2.1.1 Executing as a Dealer

Broker-dealers (BDs) acting in a **dealer capacity** (or **principal capacity**) trade for their own accounts. This is sometimes referred to as **position trading**. In doing so, they buy securities to hold in inventory or sell securities from their inventory. By holding securities ready for sale and capital ready to deploy, broker-dealers add liquidity to the markets and facilitate near-instantaneous transactions.

The fee broker-dealers charge clients when acting in a dealer capacity is a **mark-up** when the BD is selling or a **mark-down** when the BD is buying. The mark-up or mark-down is a broker-dealer’s profit on a trade. When executing transactions on a dealer or principal basis, the firm does not charge a commission.

The chart below illustrates the transaction when a firm trades as a dealer:

Example

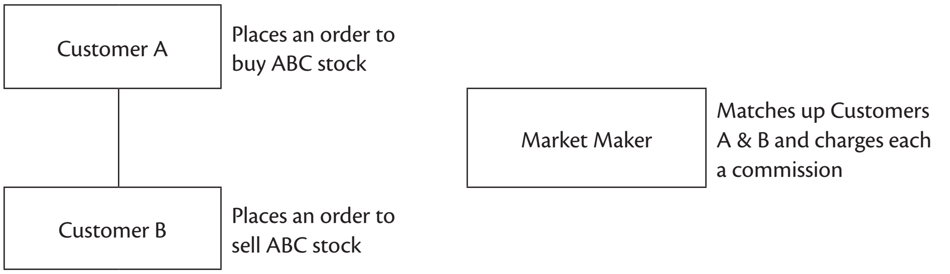
A customer contacts a market maker to buy 1,000 shares of MSFT. The market maker executes the trade by selling the customer 1,000 shares of MSFT stock from its own inventory. If MSFT's market value was $100 per share when the order was entered, the firm would mark up the price of the shares (e.g., to $101 per share), which compensates the firm for providing the brokerage service. Had the client entered an MSFT sell order, the firm executing a principal trade would mark down the price (e.g., to $99 per share) and pay slightly less than the market value, which again compensates the broker-dealer for providing the execution service. The mark-up or mark-down is the entire fee the broker-dealer earns, and the client would not pay a commission in this circumstance.

9.2.1.2 Executing as a Broker

Broker-dealers acting in a **brokerage capacity** (or **agency capacity**) match willing buyers and sellers with one another. Unlike in dealer or principal trades, in agency trades, the broker-dealer does not purchase or own the underlying security; instead it matches the two counterparties on agreeable terms, and the trade is executed. On the settlement date, ownership of and title to the securities are transferred to the buyer, and the sale proceeds are transferred to the seller.

The fee broker-dealers charge clients when acting in an agency capacity is a **commission**.

Notice that in an agency trade, there must be two market participants (other than the broker-dealer) willing to transact on the same terms at the same time. The chart below details a transaction where a firm acts as an agent.



Example

Joe contacts Broker-Dealer A to buy 300 shares of IBM. Jane contacts Broker-Dealer A to sell the 300 shares of IBM stock that she currently owns. The broker-dealer will connect Joe and Jane and set a price acceptable to both of them. When trading as agent, the broker-dealer is facilitating a trade between two counterparties rather than participating as one. Here, both Joe and Jane will pay Broker-Dealer A for the execution service it provided in the form of a trading commission (e.g., $25 per trade).

Knopman Note: **When a firm acts as a dealer, it charges a mark-up/mark-down, and when a firm acts as an agent, it charges a commission.**

9.2.1.3 Hidden Profits

Broker-dealers cannot be both a broker and a dealer in the same transaction. This is definitional: if a firm is a broker, matching a buyer and seller, it cannot also be a participant in the trade. If the firm is a dealer, trading against the customer, it cannot also be matching two parties to a trade. Charging a client both fees in the same transaction is a violation.

9.2.1.4 Fair Prices and Commissions

In addition to prohibiting hidden profits, both MSRB Rule G-30 and FINRA Rule 2120 require firms to buy or sell at fair prices to customers and charge reasonable commissions to clients. Specifically, when determining fees, firms must take into account a number of factors, including:

- The type of security involved
- Their right to make a profit (for principal trades)
- The availability of the security in the market. Charges should not be as high for easily accessible securities.
- The dollar size of the transaction. Customers should receive some consideration for larger orders.
- Services rendered by the firm, and
- The expense involved in filling the order

While the MSRB shares no specific percentages considered fair and reasonable, **FINRA's 5% policy** does provide such a guide. Specifically, the policy helps to determine the maximum amount of mark-up or commission that can be applied to a trade. However, this policy is a guide, not a hard-and-fast rule, meaning a firm can charge more than 5% based on the specific circumstances of the trade. For example, a very risky trade, an illiquid security, or an expensive order to fill are all potential reasons for charging more than 5%.

9.3 US Equity Market Structure

In the US, secondary-market trading of equities takes place on securities exchanges or in the over-the-counter (OTC) market. This section will address the operations, rules, and characteristics of these various marketplaces.

9.3.1 Stock Exchanges

The main function of a stock exchange is to facilitate the buying and selling of securities. Companies that issue equity choose the exchange on which to list their stock. The two main national exchanges are the **New York Stock Exchange (NYSE)** and **Nasdaq**.

Both exchanges provide issuers and investors **liquidity**, which is the ability to quickly and easily sell securities. In addition, exchanges act as clearinghouses for each transaction, guaranteeing payment to the seller, delivering the purchased shares to the buyer, and automatically reporting transaction data to the appropriate reporting facility. These services reduce risk and complexity for market participants.

Both exchanges publish a variety of initial and ongoing financial and liquidity requirements that issuers must meet, such as minimum 1) stock price, 2) number of shareholders, and 3) total assets. To protect investors and the larger securities marketplace, if a company does not meet the appropriate criteria, the exchange has the authority to deny initial listing or expel an already-listed company.

> ***Knopman Note:*** **A company that believes its stock is undervalued may look to repurchase shares in the open market.**

9.3.2 New York Stock Exchange

The New York Stock Exchange is the world's largest stock exchange. Trading on the NYSE is conducted in an **auction marketplace** where the current market price is the highest amount any buyer is willing to pay and the lowest price at which someone is willing to sell. In addition to the physical trading that occurs on the floor of the exchange, the NYSE simultaneously conducts the electronic trading of those same securities. The NYSE argues that this dual-method approach—human trading on the floor and electronic trading—makes for the fairest, most efficient, and liquid market.

9.3.2.1 Designated Market Makers (DMMs)

On the trading floor, the trading is directed and supervised by human **designated market makers (DMMs)**, previously known as **specialists**. Each NYSE-listed security has exactly *one* DMM assigned to oversee its trading. This role requires the DMM to maintain fair and orderly markets for each of its securities. This entails reviewing the trading data from both the physical and electronic venues and providing market participants with accurate and up-to-date liquidity and pricing data. The DMM has special importance during the market open, the market close, and periods of heightened volatility, as this human oversight can prevent and correct unusual or abnormal trading activity.

The NYSE's approach of using human and electronic resources is different from that of Nasdaq, which operates exclusively in an electronic manner (i.e., without any DMM-like figure).

9.3.3 Nasdaq Stock Market

Nasdaq was the world's first electronic stock exchange and is currently the second largest stock market in the world behind the NYSE. Nasdaq has no central trading location. Instead, all transactions occur electronically, and consequently there can be many market makers per security. This contrasts with the NYSE, which, as mentioned above, has exactly one DMM per stock.

9.3.3.1 Nasdaq Quotation Requirements

On Nasdaq, broker-dealers act as market makers for various stocks. Nasdaq is said to be a **negotiated marketplace**, as market makers must post quotations to trade. These market makers post bid and ask prices for shares during market hours in the stocks for which they make a market.

- The **bid** is the price a market maker will pay to buy shares from sellers.
- The **ask** (also referred to as the **offer**) is the price at which a market maker will sell securities to willing buyers.

Market makers have a **two-sided obligation**, meaning they must be willing to buy and sell on a continuous basis during regular market hours. These quotes are **firm quotes** because the market maker is required to trade at its quoted price if a counterparty presents an order against its quote. For example, if a market maker is quoting "27.10–27.20," that means the market maker must be willing to buy shares (its bid) at 27.10 and must be ready and able to sell shares (its offer or ask) at 27.20. The 10-cent difference between the bid and ask is referred to as the **bid–ask spread**.

A firm, two-sided quote is required during normal market hours and must be for at least one **round lot**, meaning 100 shares or a multiple of 100 shares. After each trade execution, the firm must refresh its quote to update the price and the number of shares. The chart below illustrates what a market maker's quote looks like.

Firm	Bid	Ask	Size	Notes
Market Maker A	9.92	9.99	4 × 8	Market Maker A is willing to buy (bid) four round lots (400 shares) at $9.92 and willing to sell (ask) eight round lots (800 shares) at $9.99.
Market Maker B	9.89	9.96	12 × 3	Market Maker B is willing to buy 12 round lots (1,200 shares) at $9.89 and willing to sell three round lots (300 shares) at $9.96.
Market Maker C	9.90	10.04	1 × 5	Market Maker C is willing to buy one round lot (100 shares) at $9.90 and willing to sell five round lots (500 shares) at $10.04.

As defined under FINRA Rule 5220, failure to maintain or honor firm quotes is called **backing away**. It is a serious violation, as it undermines fairness and efficiency in the marketplace. This would occur, for example, if the market maker mentioned above received a customer order to sell but refused to buy those shares at $27.10.

> ***Knopman Note:*** **Backing away is a violation that occurs if a market maker fails to honor firm quotes.**

In addition, strict rules govern the communications permitted between market makers. Market makers are prohibited from discussing or colluding on how to price a security, as that could constitute market manipulation, which is a violation of the '34 Act.

Inside Market

Market maker quotes are organized in the Nasdaq system so that market participants can easily see who is willing to pay the most for the shares, called the **best bid**, and who is willing to sell their shares at the lowest price, the **best offer**. At any particular moment, these two best quotes, the best bid and the best ask, are the **inside market**. Based on the example above, the inside market would be as follows:

Inside Market					
9.92	–	9.96	4	×	3
Best Bid		Best Ask	Bid Size		Ask Size

The best buyer (the buyer willing to pay the most) is Market Maker A with its bid of $9.92, and any orders to sell will be directed to Market Maker A first—as a seller would prefer to sell to Market Maker A at 9.92 than to Market Maker C at 9.90 or Market Maker B at 9.89. Conversely, market participants seeking to buy shares would do so from Market Maker B, who is a seller (asking) at $9.96; buyers would first purchase from Market Maker B because it is offering the lowest price.

Pop Quiz 1 *(Chapter 9)*

Three market makers are active in quoting XYZ Corp stock.

Here are their current quotes:

- MM 1: 12.24–12.29
- MM 2: 12.25–12.31
- MM 3: 12.1 –12.28

1. What is the inside quote? ________________
2. What is the spread on MM 1's quote? ________________
3. What is the spread on the inside quote? ________________
4. If an investor wanted to buy 100 shares at the market, what would the investor pay? ________________

Answers to chapter 9 pop quizzes begin on page 288

9.3.4 Over-the-Counter (OTC) Markets

If an issuer does not qualify to list its securities on a national exchange, or chooses not to, it may still register and sell its shares under the **Securities Act of 1933** to the public. These non-exchange securities, sometimes referred to as **OTC securities**, are **unlisted** and trade over-the-counter (OTC). **OTC equities** are often less liquid, as fewer shares are traded and there is no centralized venue (e.g., an exchange) where all buyers and sellers transact. Therefore, the bid–ask spreads are often much wider than those of stocks trading on exchanges, indicating increased volatility. OTC equities do have quotation venues, such as the OTCBB and the OTC Markets, that display quotes of OTC market makers who stand ready and willing to trade such shares.

> ***Knopman Note:*** **Penny stocks are an example of an OTC stock.**

9.3.4.1 OTC Bulletin Board (OTCBB)

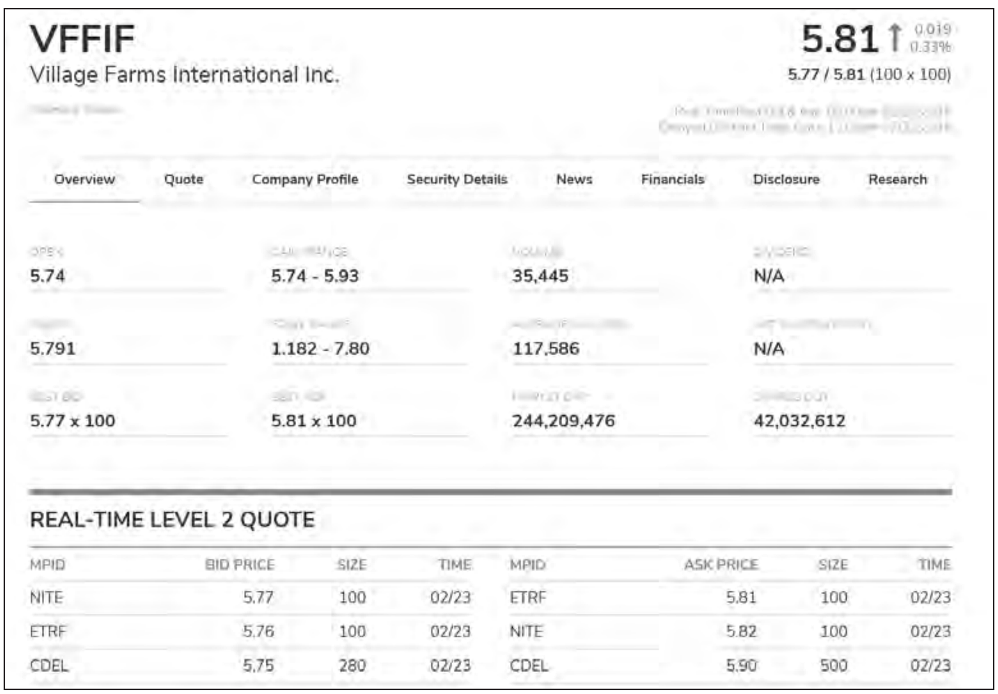
The **OTC Bulletin Board (OTCBB)** is a FINRA-operated quotation service that displays real-time quotes, last-sale prices, and volume information in over-the-counter equity securities. OTCBB securities include regional and foreign equity issues, warrants, American depositary receipts (ADRs), and direct participation programs (DPPs).

Issuers that are quoted on the OTCBB are not subject to the significant listing criteria required by the national exchanges. For example, no minimum stock price or minimum number of shareholders is required. Once an issuer has met the basic requirements as set forth in the securities laws—registered shares under '33 and ongoing disclosures under '34 (i.e., continuing disclosures in 10-Ks and 10-Qs)—the security can be quoted in the OTCBB marketplace.

To be quoted, however, there must be at least one market maker willing to enter quotes. Put differently, on the OTCBB, if there are no market makers, there are no quotes, so to be quoted, at least one firm must have agreed to be a market maker in that stock.

9.3.4.2 OTC Markets

OTC Markets, also referred to as **OTC Pink**, formerly known as the **Pink Sheets**, is a second electronic quotation system for OTC securities. The name "Pink Sheets" originates from the color of the paper on which these quotes were historically printed. A screen shot of an OTC Pink quote can be seen here.



Like the OTCBB, the OTC Pink has no formal listing requirements, and many of the quoted companies are closely held, extremely small, or thinly traded. One significant difference between the two venues is that the OTC Pink does not require quoted companies to file periodic reports or audited financial statements with the SEC (i.e., '34 disclosures). This can make it difficult for investors to find reliable, objective information on certain issuers.

If a market maker is quoting prices for the same security on both OTC Pink and OTCBB, FINRA Rule 6438 requires the quoted prices to be the same. For example, a firm cannot have a bid of $1.05 on the OTC Pink for Security A, while simultaneously having a bid of $1.12 on the OTCBB for Security A.

***Knopman Note:* Quotes on the OTCBB and OTC Pink may be one-sided, meaning both a bid and ask are not required. Quotes on national exchanges, such as the NYSE, Nasdaq, and BATS, are required to be two-sided.**

9.3.5 Other Equity Marketplaces

Aside from national exchanges and OTC markets, securities trade on additional markets.

9.3.5.1 Third Market

The **third market** refers to over-the-counter trading of exchange-traded securities. This type of trading, where listed securities will trade on an exchange other than their primary listing venue, is common. Trading in the third market is not good or bad; saying a listed security is trading in the third market is simply a way to describe how that security is trading.

Example

Charlie places an order to buy shares of an NYSE-listed stock with his broker-dealer. The broker-dealer takes Charlie's order, and instead of routing it to the NYSE, it routes it to another broker-dealer, which makes a market in that stock and can fill Charlie's order from its own inventory. Because the order was filled by the OTC market maker, and not on the NYSE itself, this is described as a third-market transaction. In terms of pricing and liquidity, Charlie will receive a price that is as good as or better than what was available on the NYSE. Had the firm obtained a worse price for Charlie, the transaction would have been a best-execution violation (discussed later).

9.3.5.2 Electronic Communications Networks (ECNs)

Sometimes referred to as the **fourth market**, **electronic communications networks (ECNs)** are passive computer systems that act as agents, automatically matching their members' buy and sell orders. They can operate 24 hours per day, seven days per week, and offer the possibility of lower fees than traditional brokerage, as minimal human interaction is involved in executing the trades.

ECNs only accept orders from their subscribers, which are typically broker-dealers or large institutional traders. If a match can be made, orders will be automatically executed against each other.

Pop Quiz 2 *(Chapter 9)*

Match the market description in the left column with the choices shown in the right column.

Description	Markets	Choices
1. Refers to any exchange-listed security traded OTC	________	New York Stock Exchange
2. An electronic market of passive computers that match orders	________	OTC Markets (OTC Pink)
3. The world's first electronic stock exchange	________	Nasdaq
4. The world's largest stock exchange	________	OTC Bulletin Board
5. OTC equity facility that requires SEC filings for companies	________	Fourth market
6. Market for companies that do not file periodic reports with the SEC	________	Third market

Progress Check

1. Brock buys shares of an exchange-listed security in the OTC market. In which market has this trade taken place?

   A. Second
   B. Third
   C. OTC
   D. OTC Bulletin Board

2. What is the cost to the investor of buying a stock directly from a dealer, which the dealer holds in inventory and sells in a principal capacity?

   A. Commission
   B. Mark-up
   C. Mark-down
   D. None

3. What is the name of the person who works at the New York Stock Exchange (NYSE), maintaining a fair and orderly market in certain assigned securities?

   A. Designated market maker
   B. Floor broker
   C. Primary dealer
   D. There is no such person because the NYSE has converted to an all-electronic order book.

4. What is the minimum amount of shares a Nasdaq market maker must be willing to buy and sell, to meet its two-sided obligation?

   A. Buy 50 shares, sell 100 shares
   B. Buy and sell 100 shares
   C. Buy 200 shares, sell 100 shares
   D. There is no set quantity of shares.

5. Stacey submits a bid to buy a stock on Nasdaq that is quoted at $27.12 bid and $27.19 ask. However, her confirmation shows a price of $27.24. She claims the market maker did not meet his obligation to buy shares at the quoted ask price. What is this practice called and is it a violation?

   A. Selling away; it is a violation.
   B. Backing away; it is a violation.
   C. Reneging; it is not a violation.
   D. Dark trading; it is not a violation.

6. What is the definition of the term **inside market** on Nasdaq?

   A. Quotes that only market makers can see
   B. Quotes only shown to institutions
   C. Quotes with a zero bid–ask spread
   D. The combination of the best bid and best offer (for investors) available from any market maker

7. To be quoted on the OTC Bulletin Board, how many market makers at minimum must a security have?

   A. None, there are no market makers on the OTCBB
   B. One
   C. Two
   D. It depends on the float in the security.

8. Why is a broker allowed to route an order for an exchange-listed security to an OTC market maker, rather than send it to the exchange floor? What is this practice called?

   A. To obtain best execution; third market
   B. To obtain best execution; market switching
   C. To earn a mark-up or mark-down; rerouting
   D. To earn a mark-up or mark-down; phantom trading

Progress Check—Solutions

1. **(B)** The third market is where exchange-listed securities trade over-the-counter.
2. **(B)** For trades made in a dealer capacity (from inventory), dealers charge either a mark-up or mark-down. They mark up securities that they sell and mark down securities that they buy. Investors pay the mark-up on purchases and the mark-down on sales. Commissions don't apply on principal trades.
3. **(A)** At the NYSE, trading is directed and supervised by designated market makers (DMMs). Each NYSE-listed security has one DMM assigned. In the past, the NYSE called persons in this role specialists.
4. **(B)** Nasdaq market makers have a two-sided obligation, meaning they must stand ready to buy and sell a minimum of 100 shares at the quoted price.
5. **(B)** The failure of a Nasdaq market maker to honor either side of a firm, two-sided quote is called backing away, and it is a violation of FINRA rules. In fact, it is a serious violation because it undermines fairness and market efficiency, while also potentially costing customers money, as in this example.
6. **(D)** At any time, several Nasdaq market makers may post quotes on a security. The combination of the highest bid and lowest ask price from any market maker is the inside market. It defines what investors see as the current consolidated quote.
7. **(B)** To be quoted on the OTCBB, a security must have at least one market maker. Without any market makers, there would be no quotes.
8. **(A)** A trade in an exchange-listed security routed to an OTC market maker is called a third-market trade. The main reason this is done is to obtain best execution, for a client. It cannot be done for the purpose of helping a dealer earn a mark-up or mark-down.

9.4 Customer Order Types

When entering a securities transaction, firms must indicate whether the client wishes to buy, sell, or **sell short**.

A **buy order** indicates the customer wishes to purchase, or acquire, securities. A **sell order** indicates the customer wishes to sell, or liquidate, securities. As discussed previously, a **short sale** is a sell order entered by a customer who does not own the securities being sold.

Beyond simply buying, selling, or selling short, investors can make use of several different order types to execute trades. By using order instructions, customers can guide the trading process so that orders are entered and executed based on specific objectives. This section covers the most common types of order instructions.

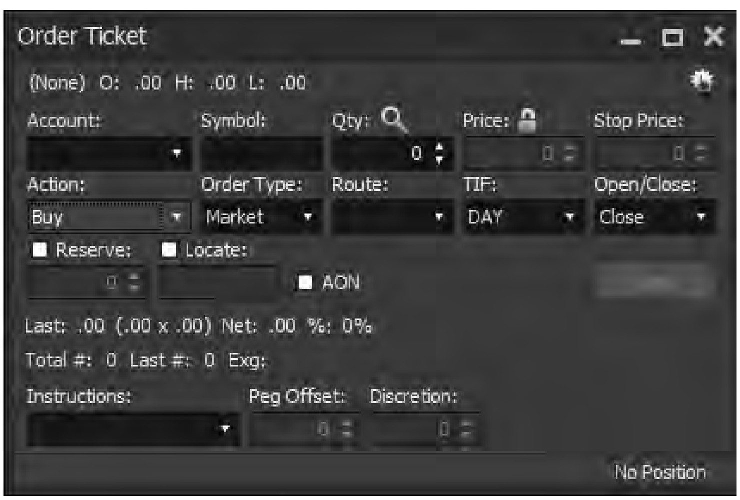
9.4.1 Order Tickets

Upon receiving an order from a customer, a firm must complete an **order ticket** or **order memorandum**. The order ticket captures and relays the customer's instructions and conditions for the order. Some of the key terms recorded on the order ticket include:

- Type of order (buy, sell, or sell short)
- The terms and conditions of the order (e.g., market order, limit order, stop order)
- The account number
- How the order was received
- Whether the order was solicited, unsolicited, or placed on a discretionary basis
- The time the order was received and then entered for execution

This information must be captured and recorded to allow the firm and regulators to review order-handling and execution in the event of complaints, disputes, or irregularities.

A sample order ticket appears below:



9.4.2 Market Orders

A **market order** instructs the executing broker-dealer to buy or sell a specified quantity of securities *immediately*, at whatever price is available when the order reaches the market. It will be executed at the best available bid or ask at that time. The instruction assures full execution, but the execution price is unknown. Market orders have priority over all other types of orders.

> ***Knopman Note:*** **Market orders are executed immediately at the best available price.**

Market orders generally work best for small trades in liquid stocks, when immediate execution is more important than the specific price of the trade. They don't work as well for large trades, illiquid securities, or when a specific price is desired.

9.4.3 Limit Orders

Limit orders allow customers to buy or sell a specified quantity of shares at a specific price or better. When buying, "or better" means a lower price. When selling, "or better" means a higher price. While a customer could give an instruction to "buy 100 shares at $25 limit," the same instruction can be provided using commonplace language: a customer who contacts her rep with the instruction to "buy 100 shares at $25" is placing a limit order. It is the rep's responsibility to interpret the customer's instruction and map it to the correct type of order.

> ***Knopman Note:*** **Limit orders are used by customers to achieve a more favorable price—customers want to buy at a cheaper price or sell at a higher price. Therefore, buy limit orders are entered at a price below the current market price, and sell limit orders are entered at a price above the current market price.**

For example, Carolyn places an order to "buy 200 shares of Microsoft at $50.63." What she has indicated is that a price of $50.63 or better, which is any price at or lower than $50.63, is acceptable—this is a limit order, even though she never said "limit." If, in fact, the order gets filled at $50.61, Carolyn should be pleased, as she was willing to pay up to $50.63 but was able to buy the shares for less.

Evan is selling Microsoft stock, and his order is to "sell 200 shares at $50.65 or better." He is saying: "I don't want to accept a cent less than $50.65 for my shares, but I will accept $50.65 or more." This, again, is a limit order instruction, even though Evan never said "limit."

Once a customer has entered a limit order, the order will be executed as soon as it can be filled at its specified price. It is important to be able to identify when, in a series of transactions, a limit order would be executed.

Consider the following trades:

Trade Sequence	$50.65	$50.68	$50.66	$50.64	$50.62	$50.61	$50.63	$50.69

Where along this sequence would Carolyn's **buy limit** at $50.63 be executed? Remember, it will be executed at the *first* price that satisfies (or is better than) the limit price.

Here, Carolyn's buy limit $50.63 will fill at $50.62 because that is the first price that satisfies her limit price (she wants to buy for $50.63 or less).

Where along this sequence would Evan's **sell limit** $50.65 be executed? It will fill at $50.65 because that is the first trade that satisfies his limit (he wants to sell for $50.65 or more).

> ***Knopman Note:*** **Limit orders are filled at the first price that satisfies the limit.**

Let's say that Michael also entered a limit order to buy at $50.40. Where along the above sequence would his order be executed? Answer: His order would not be executed because there is no price at or below $50.40. This is the inherent risk with limit orders—the order will not be executed if the specified price is not available.

> ***Knopman Note:*** **Limit orders guarantee a price, but not execution. If the specified price or better is not available, the order will not be executed.**

Most orders, including limit orders, are **day orders**, meaning they are in effect for the duration of the trading day on which they were entered. If the order is not executed that day, it is cancelled. However, customers can instead specify their order be **good 'til cancelled (GTC)**, which means it will remain in effect until executed or cancelled (i.e., longer than a day).

9.4.4 Stop Orders

Stop orders, sometimes called **stop loss orders**, are used to initiate a trade once a security's price reaches a specified point. They can be useful for protecting profits or preventing losses in a long stock or short stock position.

Unlike limit orders, which are executed at the first price that satisfies the limit, stop orders have a two-step process. First, they are entered with a **stop price**, which is the market value that will activate or trigger the stop order. Second, once the predetermined price is reached, the stop order is automatically converted into a market order to buy or sell, and will immediately execute at the market price.

> ***Knopman Note:*** **A stop order, once triggered, becomes a market order. The market order is executed at the best available price, and can be above or below the stop price.**

Example 1: Protect Profit on a Long Stock Position

John buys 500 shares of Intel stock at $27 per share, and over the next few weeks, it rises to $31. He would like to protect his profits while continuing to participate in any upside to the stock price. He could do so by entering a **sell stop order** at $29. If the price falls to $29, his stop order will convert into a market order, and the shares will be immediately sold at the best available price. In this case, he will protect about $2 worth of profit, depending on the exact execution price once triggered.

> ***Knopman Note:*** **To protect an existing long position, an investor would place a sell stop order.**

Example 2: Prevent Loss on a Short Stock Position

Helen sells short 300 shares of Johnson & Johnson at $105. She is betting the price will decline so that she can buy back the stock at a lower price and profit from the difference. However, as a short sale, the order has unlimited loss potential if the price rises. She wishes to cap the potential loss by using a **buy stop order** to repurchase the 300 shares if the price rises to $110. If the price does rise to $110 or above, her order will immediately convert into a market order, buy the shares at the market price, and close her short position. She will therefore limit her potential losses to about $5, depending on the exact execution price.

> ***Knopman Note:*** **To protect an existing short position, an investor would place a buy stop order.**

Like market orders, stop orders do not guarantee the price at which an order will be filled. It's possible that the execution price could be worse for the investor than the specified stop price. For example, in Helen's example above, although the order is activated at a trade at or through $110, if the best offer at the time is $111, that would be the actual execution price. This is sometimes referred to as **gap risk**.

Pop Quiz 3 *(Chapter 9)*

Match each of the following terms with the appropriate description.

A. Bid
B. Limit order
C. Ask
D. Stop order
E. Market order

_____ Used to protect a profit; it becomes a market order once a security's price reaches a specified level.

_____ Price at which a market maker is willing to buy shares from a customer

_____ Used to obtain the best execution quickly at the best available price

_____ Price at which a market maker is willing to sell shares to a customer

_____ Used to buy or sell shares at a specific price or better; guarantees a price but not execution.

9.4.5 Adjusting Limit and Stop Orders

As discussed previously, on the morning of the **ex-dividend date**, the stock price is reduced by the amount of the dividend. As the price of the stock falls, all orders entered at or below the market (i.e., "BLiSS" orders) are automatically reduced by the amount of the dividend to prevent inadvertent execution of these orders.

***Knopman Note:* The chart below details where the different orders are placed in relation to the market.**

			Acronym
Entered ABOVE the market price	**Buy Stop**	**Sell Limit**	*SLoBS*
Current market value →			
Entered BELOW the market price	**Buy Limit**	**Sell Stop**	*BLiSS*

The two orders that are entered below the market value are **B**uy **L**imit and **S**ell **S**top orders—an acronym to help remember these is **BLiSS**. The orders entered above the market are **S**ell **L**imit and **B**uy **S**top orders, or **SLoBS**. Orders entered below the market—buy limit and sell stop orders (BLiSS)—are automatically reduced by the amount of the dividend on the ex-date. Orders entered above the market—sell limit and buy stop orders (SLoBS)—are not adjusted for dividends.

Example

XYZ Corp stock has a market value of $50 per share. Barry enters a buy limit order to purchase 100 shares of XYZ Corp at $45. Around the same time, Michelle enters an order to sell 100 shares of XYZ $47.50 stop. Weeks later, XYZ declares a $1.25 cash dividend. What happens on the ex-date?

Both Barry's buy limit order and Michelle's sell stop order (BLiSS) will be reduced by $1.25. Why? The limit and stop prices are reduced to avoid the ex-date adjustment from triggering the orders.

- Barry's order is now buy 100 shares XYZ at $43.75 (buy limit).
- Michelle's order is now sell 100 shares XYZ at $46.25 stop (sell stop).

Note: If either order had been entered above the market, they would not be adjusted.

Investors who do not want their orders adjusted can provide a **do not reduce (DNR)** instruction. This instruction means that the limit or stop price will not be reduced on the ex-dividend date, even if that results in an order's execution.

9.5 Market Protection

The US securities markets are overseen and regulated by many entities, including Congress, the SEC, FINRA, and the exchanges. While each of these entities focuses on different areas of the marketplace, the overarching goal is to protect investors, ensure efficient and fair markets, and facilitate capital formation. This section will focus on a number of additional regulations that are designed to ensure that market makers act fairly and appropriately when dealing with customers.

9.5.1 Best Execution Obligations

Firms must obtain **best execution** for customer orders. This means that the firm must route each customer order to the exchange or trading venue that will provide the most advantageous terms for the customer. This is often based on the best price, though other factors, such as volatility and liquidity, may be considered. As set forth in FINRA Rule 5310 and MSRB Rule G-18, members and their associated persons must:

- Use reasonable diligence to determine the best market for the subject security, and
- Execute transactions at prices as favorable as possible under prevailing market conditions

Example

Shares of Company XYZ are offered for $10 on the NYSE and $10.10 on Nasdaq. If a broker-dealer buys the shares for the customer at the higher price on Nasdaq, it is not fulfilling best execution responsibilities.

These requirements exist in both agency and principal trades, and firms are required to regularly and rigorously review their procedures for meeting their best execution duty.

9.5.1.1 Interpositioning

Interpositioning is a violation of a firm's best execution responsibilities in which the firm adds an additional broker-dealer as a principal to a transaction when there is no benefit to the customer. This might be done to generate additional fees from the customer.

9.5.2 Order-Splitting and Trade-Shredding

FINRA Rule 5290 prohibits firms from **order-splitting**, or **trade-shredding**, for the primary purpose of increasing monetary payments. Order-splitting is the practice of splitting a customer's order into multiple small orders for execution.

Example

It would be prohibited for a firm to split a 1,000-share order into 10 orders of 100 shares so that the firm could charge the customer a higher commission on each individual part of the order.

An order may be broken apart for legitimate reasons—for example, if the firm believes that smaller orders will receive better and faster execution.

> ***Knopman Note:*** **Breaking a large order into smaller parts is permissible to achieve best execution for the customer.**

9.5.3 Publication of Transactions and Quotations

FINRA Rule 5210 and MSRB Rule G-13 prohibit a firm from publishing or circulating security quotations or transaction reports unless it believes that quote or execution to be **bona fide**, meaning legitimate. As one would expect, it is fraudulent for a firm to make up information.

For this reason, when an equity transaction does occur, the trade price and volume must be reported to the appropriate facility within 10 seconds of execution. These trade reports help keep all market participants informed, allowing them to access and integrate current market data into their own investment strategies.

The MSRB has similar regulations, though MSRB Rule G-14 requires trades in municipal securities to instead be reported within 15 minutes of execution to the MSRB's **Real-Time Transaction Reporting System (RTRS)**.

9.5.4 Payments by Firms to Influence the Market Price of Securities

To prevent impropriety and misconduct, FINRA Rule 5230 prohibits firms from offering or giving payments or anything else of value to any media publication, such as a newspaper or radio program, in order to influence the price of a security. FINRA deems this activity manipulative, though some exceptions exist, including communications that are clearly identified as paid advertising as well as research reports.

9.5.5 Coordination and Anti-Intimidation

To facilitate robust and fair markets, broker-dealers, market makers, and market participants must set their quotes independently. FINRA Rule 5240 prohibits any attempt to coordinate prices, quotes, or trade reports between two or more firms, associated persons, and investors, or with anyone else. This also prohibits members from directing, requesting, or threatening another member to alter a price or quote.

9.5.6 Payments for Market Making

Broker-dealers must use their business judgment to decide whether to make a market in a particular stock. The decision to do so must be based on valid and legitimate reasons. FINRA Rule 5250 prohibits a firm from accepting any direct or indirect payment from an issuer of a security or their affiliates in return for publishing a quote or acting as a market maker.

Example

ABC Corp offers to pay a college tuition for a trader's child if the trader agrees to make a market in the stock. This is not allowed.

Such payments create conflicts of interest because they can influence 1) the firm's decision to make a market in a security and 2) which prices are quoted. A payment, for this purpose, can include cash, non-cash, or securities.

9.5.7 Front-Running

Under FINRA Rule 5270, no orders to buy or sell can be made by a firm that has material, nonpublic market information, however received, about an imminent block trade in a security or a related security. To do so is the prohibited practice of **front-running**.

A **block trade** is generally described as a transaction of a large quantity of stock or involving a large dollar amount. In general, an order of 10,000 shares or more is considered a block.

Example

Mega Corp instructs its broker-dealer to buy 23,000 shares of Acme, Inc., stock. This is a block trade because the transaction involves more than 10,000 shares.

Before the trade is executed and reported (i.e., the trade information is made publicly available), no one at the broker-dealer that has knowledge of the trade can transact in Acme stock prior to executing the block.

The regulatory concern is that a registered representative of the firm with knowledge of the impending transaction might first place a small order in that security for their own account with the expectation that this large customer order will drive the price of the security higher.

Knopman Note: **Front-running is a prohibited activity in which a registered rep becomes aware of a large customer order and trades for his personal account beforehand in the hopes the large order will increase the stock price.**

9.5.8 Trading Ahead of Customer Orders

FINRA Rule 5320 prohibits a firm from placing its own trading interest ahead of a client's. Specifically, a firm is prohibited from trading for its own account at a price that is equal to or better than an unexecuted customer limit order in that security, unless the firm immediately (i.e., within 60 seconds) thereafter executes the customer limit order at the same or better price for at least the same number of shares.

Example

Broker-Dealer ABC is holding a customer's order to buy 5,000 shares of XYZ stock at $37. The customer's order has not been executed yet because there have been no shares available at $37 or better. If Broker-Dealer ABC purchases 2,000 shares of XYZ for its own inventory at $37, it must immediately thereafter fill the customer's order for 2,000 shares at $37 or better. The effect of these two transactions is that the customer gets the 2,000 available shares.

There are exceptions to this prohibition: The rule does not apply if the trader was not aware of the customer's order. Additionally, the rule does not apply to institutional clients as long as they are given written disclosures either at account opening or prior to each trade that the firm may trade ahead of their interests.

9.5.9 Trading Ahead of Research Reports

FINRA Rule 5280 prohibits firms from establishing, increasing, or decreasing inventory positions in any security or derivative (i.e., call option) of an issuer ahead of research report publication on that company. The purpose of the rule is to prevent the traders at a broker-dealer from using and benefiting from nonpublic information in a research report before it is available to everyone.

In addition, this rule requires broker-dealers to establish internal controls that restrict the flow of information between the research department and trading personnel, such as information barriers and firewalls. If other people in the firm obtain advance knowledge of research reports, they are restricted from communicating with traders as well.

This rule focuses on a firm trading from its own inventory—not on orders placed for customers. Note that, if the firm receives nonpublic advance information from a research report, it must place customer orders on an agency basis, not as a principal.

> ***Knopman Note:*** **It is a violation for a broker-dealer or registered rep to trade a security based on nonpublic information contained in a research report prior to that report being released to the public.**

Pop Quiz 4 *(Chapter 9)*

Match the terms, relating to investor and market protection, with the appropriate definitions in the left column.

Definition	Term	Choices
1. Requirement that a firm must route each order to the exchange or venue that provides the most advantageous terms	___________	Backing away
2. Adding an unnecessary broker acting as principal in a transaction, with no benefit to the customer	___________	Pump and dump
3. Trading on material, nonpublic information about a block trade	___________	Best execution
4. Hyping a company or stock to artificially inflate the stock price so shares can be sold at a profit	___________	Front-running
5. Failure of a market maker to honor a quoted price	___________	Interpositioning

9.5.10 Other Prohibited Forms of Market Manipulation

As mentioned in the beginning of this chapter, the '34 Act forbids all forms of direct or indirect manipulation of securities prices.

The following are examples of expressly prohibited activities relating to securities:

- **Marking the open** or **marking the close** is when a trader attempts to manipulate the opening or closing price of a security by entering a number of buy or sell orders just prior to the open or close of trading. This is especially harmful to the market, as the opening and closing prices of a security each trading day have special importance—they are widely disseminated and used to benchmark market performance.
- **Spoofing** is a form of market manipulation where a trader enters an order to manipulate prices to be higher or lower, with no intent of actually executing at the quoted price. In other words, spoofing refers to entering orders to entice other participants to join on the same side of the market, and then trading against other market participants' orders.

- **Pump and dump** is when an investor attempts to create undue hype around the value of their shares by providing exaggerated or misleading information, allowing them to sell their position for a greater profit. An example is when an investor is randomly solicited with positive information over email or social media to purchase shares in a penny stock or other risky investment.
- **Circulation of rumors** is the passing along of false or misleading statements concerning a security.

Knopman Note: **Make sure to review the prohibited activities discussed above.**

Knopman Note: **Note that arbitrage is not considered manipulation. Arbitrage occurs when an investor takes advantage of a temporary price disparity in a security. An example is buying a stock on one exchange for a low price and then immediately reselling it on another exchange for a higher price.**

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 9)*

1. What is the inside quote? **It is the highest bid and the lowest ask: 12.25–12.28**
2. What is the spread on MM 1's quote? **It is the difference between 12.24 and 12.29, 5 cents.**
3. What is the spread on the inside quote? **It is the difference between 12.25 and 12.28, 3 cents.**
4. If an investor wanted to buy 100 shares at the market, what would the investor pay? **The investor would pay $12.28 per share, the lowest ask price. Best execution = trading at the best price available from any market maker.**

Pop Quiz 2 *(Chapter 9)*

Description	Markets
1. Refers to any exchange-listed security traded OTC	Third market
2. An electronic market of passive computers that match orders	Fourth market
3. The world's first electronic stock exchange	Nasdaq
4. The world's largest stock exchange	New York Stock Exchange
5. OTC equity facility that requires SEC filings for companies	OTC Bulletin Board
6. Market for companies that do not file periodic reports with the SEC	OTC Markets (OTC Pink)

Pop Quiz 3 *(Chapter 9)*

D	Used to protect a profit; it becomes a market order once a security's price reaches a specified level.
A	Price at which a market maker is willing to buy shares from a customer
E	Used to obtain the best execution quickly at the best available price
C	Price at which a market maker is willing to sell shares to a customer
B	Used to buy or sell shares at a specific price or better; guarantees a price but not execution.

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 9)*

	Definition	Term
1.	Requirement that a firm must route each order to the exchange or venue that provides the most advantageous terms	Best execution
2.	Adding an unnecessary broker acting as principal in a transaction, with no benefit to the customer	Interpositioning
3.	Trading on material, nonpublic information about a block trade	Front-running
4.	Hyping a company or stock to artificially inflate the stock price so shares can be sold at a profit	Pump and dump
5.	Failure of a market maker to honor a quoted price	Backing away

Unit Exam

1. Which of the following items is *not* included on an order ticket?
   A. Customer account number
   B. Customer name
   C. Whether or not the order was solicited
   D. When the order was entered for execution

2. Calvin wants to buy 200 shares of Snapchat stock. He enters a market order when the quote is $14.89–$14.92. By the time his order reaches the exchange floor for execution, about a minute later, the quote is $14.90–$14.93. What price will he have to pay?
   A. $14.89
   B. $14.90
   C. $14.92
   D. $14.93

3. Matthew has heard rumors that Microsoft will make a significant announcement in a matter of minutes, and it could cause the stock to take off. What type of order should he enter to buy the stock quickly?
   A. Limit
   B. Market
   C. GTC
   D. Stop

4. To protect profits on a stock she owns, Nora enters a sell stop order with a price of $72 per share. The stock is currently at $75. What will happen to this order if the price drops as low as $72?
   A. Stock will be sold at $75.
   B. Stock will be sold at $72.
   C. Stock will be sold at the best available price.
   D. Stock will be frozen in price but not sold from the account.

5. Which of these pairs of orders are entered below the current market price?
   A. Buy stop and buy limit
   B. Buy stop and sell stop
   C. Buy limit and sell stop
   D. Buy limit and sell limit

6. If Ben wants to protect his short stock position, he should enter a:
   A. sell limit order.
   B. buy limit order.
   C. sell stop order.
   D. buy stop order.

7. Jack has an open limit order to buy 500 shares of XYZ Co. stock at 35 GTC. The stock is currently at $36. If the company declares a cash dividend of $1.50 per share with a record date on Friday, July 21, when will his limit price be automatically adjusted and to what?
   A. July 18; buy 500 limit $33.50
   B. July 19; buy 500 limit $36
   C. July 20; buy 500 limit $33.50
   D. The limit price will not be automatically adjusted.

8. A FINRA member commits a front-running violation by buying or selling based on material, nonpublic information about an imminent trade of what size?
   A. Any size
   B. At least 10 round lots
   C. 10,000 shares or more
   D. $1 million or more

Unit Exam (Continued)

9. Under US securities law, it is a violation to intentionally withhold what type of information from investors?
   - A. Material
   - B. Essential
   - C. Integral
   - D. Indispensable

10. In which case can a securities firm act as both a broker and a dealer in the same transaction?
    - A. When it is fully disclosed to the client
    - B. When it is matching two customers in the transaction
    - C. When the firm's total compensation from commissions and mark-ups falls within FINRA guidelines
    - D. None

11. FINRA's 5% policy provides guidance to broker-dealers in regard to:
    - A. allocating shares to customers in an IPO.
    - B. the maximum mark-up/mark-down or commission that can be charged.
    - C. the maximum amount of time that a market order can remain unfilled.
    - D. the percentage of the firm's business in exchange-traded securities that can be routed to the third market.

12. Which provisions of US securities law prohibit manipulative and deceptive practices and untrue statements of material facts?
    - A. Anti-fraud
    - B. Blue sky
    - C. Contract and negligence
    - D. Insider trading

13. Is a broker-dealer ever allowed to charge two commissions on a single trade?
    - A. No, because this is a conflict of interest
    - B. Only if it is an agency trade matching the buyer and seller
    - C. Only if it is a trade involving a stop limit order
    - D. Yes, provided that any affected clients agree in writing, prior to the trade

14. Which statement about market makers on the NYSE and Nasdaq is accurate?
    - A. The NYSE has fewer designated market makers (DMMs) than Nasdaq.
    - B. DMMs at NYSE work in a central location; DMMs at Nasdaq are scattered.
    - C. The NYSE has a DMM for every stock; the Nasdaq has DMMs for only some stocks.
    - D. The NYSE has DMMs, and Nasdaq doesn't.

15. In making a firm quote, what is the minimum amount of shares that a market maker must be willing to buy and sell at a stated price?
    - A. Buy 100 shares; sell 200 shares
    - B. Buy 200 shares; sell 100 shares
    - C. Buy and sell 100 shares
    - D. The limit depends on the size and financial resources of each market maker.

Unit Exam (Continued)

16. Wilson has heard a hot tip about a company listed on OTC Pink. He wants to buy 1,000 shares. What should his broker tell him about companies that trade on OTC Pink?

    A. They are required to file periodic reports with the SEC, so he should check out the reports first.
    B. Stocks are thinly traded, and not much information may be available about the companies.
    C. Very few companies trade on OTC Pink, so there is not much to choose from.
    D. To trade on OTC Pink, companies must meet rigorous listing requirements.

Unit Exam—Solutions

1. (**B**) The ticket includes the type of order, terms and conditions of the order, account number, how the order was received, whether or not the order was solicited, and the time the order was received. The ticket does not capture the client's name but rather identifies the client by account number.

2. (**D**) In a market order, the customer agrees to buy at the ask price or sell at the bid price when the order reaches the exchange floor for execution. This may be a little different than the price the customer sees, or is quoted, when the order is placed.

3. (**B**) The only type of order that guarantees quick execution is a market order.

4. (**C**) Sell stop orders are entered *below* the current stock price to lock in a profit and protect against loss. They will only be triggered if the price falls to the stop price. At that point, they convert into market orders and are executed at the best available price.

5. (**C**) Remember that buy limit orders are placed below the current market and sell limit orders are entered above the current market. With stop orders, it is the reverse: buy above; sell below. The acronym to remember for orders entered *above* the current market is SLoBS. The acronym to remember for orders entered *below* the current market is BLiSS.

6. (**D**) A buy stop order would be used to protect a short stock position. If the market value of the short increases above the stop price, the order will activate and become a market order, allowing Ben to buy back the shares to cover his short.

7. (**C**) Prices are automatically adjusted (always down) on the ex-dividend date, by the amount of a cash dividend, for limit, stop, and stop limit orders entered *below* the current market price. This will be for buy limit orders and sell stop and stop limit orders. *Remember: BLiSS is for divs.* The only way to prevent this adjustment in the order is to attach a do not reduce (DNR) instruction to the order. The ex-dividend date is one business day before the record date.

8. (**C**) No orders to buy or sell can be made by a firm that has material, nonpublic information, however received, about an imminent block trade in a security. This violation is called front-running. A block trade involves an order of 10,000 shares or more.

9. (**A**) Investment firms and reps are not allowed to make untrue statements of material facts, or to omit or misrepresent material facts.

10. (**D**) As a firm rule, broker-dealers cannot act as both a broker and dealer in the same transaction. If a firm is a broker, it cannot also be a principal in the trade, marking the price up or down. If it is a dealer, trading against a customer, it cannot be matching parties in a trade as a broker and charging a commission.

Unit Exam—Solutions (Continued)

11. (**B**) FINRA's 5% policy is a non-binding guideline for fair pricing of mark-ups/mark-downs and commissions by broker-dealers. In most cases, the firm should not charge more than 5%. However, risky trades, illiquid securities, and hard-to-fill orders can be considered exceptions.

12. (**A**) The anti-fraud provisions of the '34 Act define and prohibit manipulative and deceptive devices.

13. (**B**) There is one case in which a broker-dealer can charge two commissions on a single trade: when it is matching two customers (the buyer and seller) in an agency trade. Both clients pay a commission and both are entitled to best execution.

14. (**D**) On the NYSE, DMMs, previously known as specialists, are assigned to ensure orderly and liquid trading in a given stock. One DMM is assigned per stock. On Nasdaq, there are no DMMs. Instead, several market makers may provide continuous, two-sided firm quotes on any given security.

15. (**C**) Market makers can quote different sizes for buying and selling, and they usually do. But at minimum, they must offer a continuous, two-sided quote (bid and ask) in a size of at least one round lot, 100 shares.

16. (**B**) OTC Pink is an electronic quote system for small, obscure, and thinly traded OTC companies. It is generally where companies that cannot meet exchange or OTC Bulletin Board requirements trade. OTC Pink companies are not required to meet listing requirements or file periodic reports or audited financial statements with the SEC.

10. Economics and Monetary Policy

The **economy** encompasses everything related to the production and consumption of goods and services in an area, country, or other geographic segment. Financial markets, which are greatly influenced by forces that affect the economy, play a key role in any economy. This chapter will discuss how these forces interact and their impact on financial markets and products.

Chapter Goals

- Understand inflation and its impact on interest rates.
- List the four phases of the business cycle.
- Distinguish between the different types of yield spreads.
- Compare and contrast monetary policy and fiscal policy.
- Describe the tools of the Fed and explain how they are used to either ease or tighten the money supply.
- Distinguish between debit and credit items as they relate to a country's balance of trade.

Key Terms

- **Inflation**—The increasing price of goods and services over time, which is measured by the Consumer Price Index (CPI)
- **Yield curve**—A chart that graphs the relationship between interest rates and time until maturity, with a normal yield curve illustrating that longer-term bonds have higher rates to compensate investors for the greater risk of inflation
- **Fiscal policy**—Concerned with the use of government spending and taxation to influence interest rates and the economy
- **Monetary policy**—Concerned with the amount of money in circulation, which is set by the Federal Reserve Board, to help control inflation, interest rates, and overall economic growth
- **Federal Reserve Board (the Fed)**—The central bank in the US, which is responsible for determining the amount of money in circulation in order to influence economic growth, inflation, unemployment, and exchange rates

- **Federal funds rate**—The rate that banks charge one another for overnight loans, considered the most volatile interest rate in the market
- **Discount rate**—The rate the Fed charges banks for short term loans, another tool of the Fed
- **Open market transactions**—The buying and selling of government securities with primary dealers, the primary tool of the Fed
- **Reserve requirement**—A tool of the Fed that requires banks to keep a certain percentage of customer deposits on hand and not lent out to customers
- **Ease money supply**—When the Fed increases the money supply to lower interest rates
- **Tighten money supply**—When the Fed decreases the money supply to increase interest rates

10.1 Factors That Influence and Indicate Economic Performance

Many complicated and interrelated factors drive the performance of the economy, including:

- Supply and demand
- Business cycles
- Increases or decreases in the money supply, and
- Industry-specific earnings and output

10.1.1 Consumer Spending

The personal expenditures of US consumers along with their attitudes about spending have a powerful ability to cause fluctuations in the economy. If consumers have a negative attitude about the economy, they are reluctant to spend. On the other hand, when sentiments are positive, consumers tend to spend more and invest with confidence. This behavior increases the health of the economy and income levels.

> ***Knopman Note:* The *velocity* of money is the rate of turnover of money, or how fast it is being spent. It is usually measured as a ratio comparing GDP (discussed shortly) to the money supply. When money velocity is low, people are saving rather than spending.**

Several factors impact consumer spending, described below.

10.1.1.1 Interest Rates

Interest rates are the cost of capital. They are subject to the laws of supply and demand. The rate of interest is considered the price of credit, so it greatly influences investments.

Spenders and savers view interest rates differently. High interest rates mean high costs of credit, so they deter capital investment and spending, but they are attractive to savers. Low interest rates can stimulate capital investment, but they are unattractive to savers.

10.1.1.2 Rate of Inflation

In economics, **inflation** is a rise in the general level of the prices of goods and services in an economy over a period of time. When the price level rises, currency buys fewer goods and services; consequently, inflation erodes the purchasing power of money.

In the US, inflation is measured by the **Consumer Price Index**, or **CPI**, which is calculated by the Department of Labor and measures the rate of increase or decrease in consumer goods and services.

Inflation can be viewed as having a positive or negative effect on the economy. Most economists believe that moderate inflation levels are needed to drive consumption and promote spending, which are crucial for economic growth. The Federal Reserve targets an annual, controlled rate of inflation for the US economy.

Negative effects of inflation include a decrease in the value of money. Uncertainty about future inflation may discourage investment and saving, and high inflation may lead to shortages of goods if consumers begin hoarding out of concern for future price increases. Economists generally agree that high rates of inflation are caused by an excessive growth of the money supply.

10.1.1.3 Unemployment

Unemployment is usually measured by the **unemployment rate**, which is defined as the percentage of those in the labor force who are without work. The unemployment rate is considered an important measurement of economic performance. Economic theory posits that a certain level of unemployment is inevitable, a necessary evil to prevent inflation. Although the causes of unemployment are disputed, theoretically it occurs from insufficient demand for goods and services in the economy, or structural problems and inefficiencies in labor markets, such as mismatches between the supply of and demand for workers with a particular skill set.

High unemployment is considered a negative economic factor, and usually accompanies economic downturns.

10.1.1.4 Elasticity

Elasticity refers to the sensitivity of supply and demand of a commodity to a change of price. If a commodity is demand elastic, that means that as prices change, demand will change. For example, if prices increase, demand will decrease, and vice versa. Alternatively, if a commodity is demand inelastic, a change in price will have no impact on demand for that product.

> ***Knopman Note:*** **Make sure to know the definition of elasticity.**

10.1.2 Gross Domestic Product (GDP) and Gross National Product (GNP)

Gross domestic product (GDP) is defined as the total market value of goods and services produced within a country, regardless of the nationality of those who produce them. **Gross national product (GNP)** is the total market value of goods and services produced by the residents of a country, even if they're living abroad. For example, if a US resident earns money from an overseas investment, the value is included in GNP, but not GDP. However, goods produced by foreign-owned business within the US are included in GDP, but not GNP.

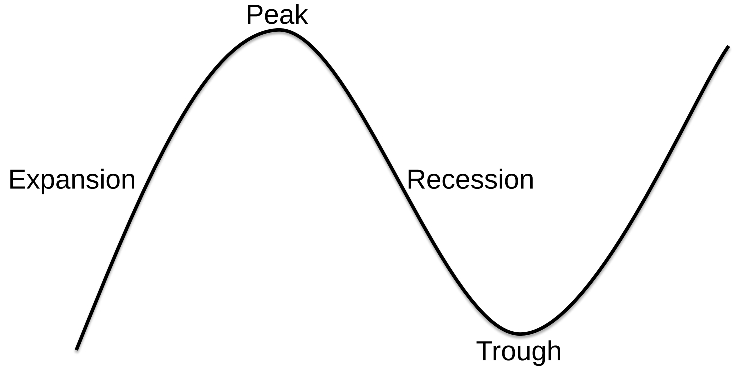
GDP is the primary metric used for measuring US economic growth and analyzing economic performance. Growth of the US economy is determined by comparing the change in GDP from one year to the next.

> ***Knopman Note:*** **In a recession, the government would take steps to increase GDP. This is sometimes referred to as an *economic stabilizer*.**

10.1.3 The Business Cycle

The terms **business cycle** and **economic cycle** refer to a recurring pattern and fluctuation in economic activity ranging over several months to a number of years. A business cycle's magnitude and length is not regular or predictable; instead its timing is random and its level of severity is unpredictable.

The business cycle is a sequence of four phases, as shown in the following diagram: **expansion**, **peak**, **contraction**, and **trough**.



Expansion is characterized by increased economic activity and increased availability of goods and services in the marketplace. Unemployment declines in a period of expansion, and there is a measurable rise in GDP.

A risk of an economy that grows too quickly is **inflation**, or increasing prices and cost of living.

At times, periods of slow economic growth may be accompanied by rising prices, or inflation and relatively high unemployment. This condition, **stagflation**, is thought to be caused by sharp increases in essential commodities, like oil, or poor economic policy.

A **peak** occurs when an expansion reaches its highest point and marks the beginning of an economic downturn. It is the point at which an expansion turns into a contraction.

Contractions are characterized by a slowdown in the pace of economic activity. Production, as measured by GDP, employment, investment spending, manufacturing output, household incomes, and business profits, may fall during contractions, potentially resulting in corporate bankruptcies and high unemployment.

A **trough** occurs when a contraction reaches its lowest point and begins to turn. It is the point at which the contraction turns into an expansion.

10.1.3.1 Recession and Depression

A **recession** is a prolonged period of contraction. By definition, a recession occurs after a decline in GDP for two or more consecutive quarters.

A **depression** is a sustained, long-term downturn in economic activity in one or more economic sectors. More severe than a recession, it is characterized by a decline in real GDP exceeding 10%, or at least six consecutive quarters of negative GDP growth.

> ***Knopman Note:* A recession is defined as a decline in GDP for two or more consecutive quarters.**

Pop Quiz 1 *(Chapter 10)*

Which of the following are economic characteristics of an expansion?

I. Decline in unemployment
II. Gradually declining interest rates
III. Gradually declining GDP
IV. Increase in consumer and business borrowing

A. I and II
B. I and III
C. II and III
D. I and IV

Answers to chapter 10 pop quizzes begin on page 319

10.1.4 Economic Indicators

Economic indicators are measures that help assess the health of the economy and provide some insight into the future.

These indicators have been categorized into three groups that identify whether they change before, during, or after a change in the business cycle.

10.1.4.1 Leading Indicators

Leading indicators are those that change before the economy starts to follow a particular pattern or trend. Leading economic indicators include:

- Bond yields
- Building permits (new private housing)
- Manufacturing activity
- Stock market indices and averages (e.g., S&P 500)
- Producer Price Index

- Layoff rates
- Average of weekly unemployment insurance claims, and
- Changes in business inventories

10.1.4.2 Lagging Indicators

Lagging indicators change after the economy has already begun to follow a particular pattern or trend. Examples of lagging indicators include:

- Interest rates, particularly the **prime rate**
- Unemployment rate
- Corporate profits
- Balance of trade
- Inventory/sales ratio
- Labor cost per unit of output, and
- Commercial and industrial loans outstanding

10.1.4.3 Coincident Indicators

Coincident indicators are economic factors that vary simultaneously with the business cycle. Examples of coincident indicators are:

- GDP
- Industrial Production Index and Capacity Utilization Index
- Employees on non-agricultural payrolls (i.e., non-farm payrolls)
- Personal income
- Consumer spending, and
- Retail and manufacturing sales

Knopman Note: **Make sure to know that GDP is a coincident indicator.**

Pop Quiz 2 *(Chapter 10)*

Match each of the economic indicators in the left column below with its type: leading, coincident, or lagging.

Economic Indicator	Leading	Coincident	Lagging
Unemployment Rate			
Consumer Spending			
GDP			
Bond Yields			
Stock Market			
Personal Income			
Balance of Trade			

10.2 Financial Markets and the Economy

A fundamental knowledge of economics is important to understanding how financial instruments perform in different market environments. Markets overall are categorized as:

- **Bull market**—A market that experiences an extended rise in the price of stocks, bonds, and commodities. Usually lasting for several months, it draws investors into the action, causing trading volume to rise, as investors are confident that strong results will continue.
- **Bear market**—A prolonged period of declining prices, this type of market may be caused by a fear of a slowdown in the economy. During this time, selling increases, as there is widespread pessimism that losses will continue.

10.2.1 Bond Markets and the Economy

Fixed-income instruments, including bonds, are closely linked to economic performance because of their relationship to interest rates.

Because rising interest rates cause a decline in bond prices, the bond market tends to react negatively to reports of strong and potentially inflationary levels of economic growth. Negative economic news may indicate lower inflation and interest rate cuts, which is generally positive for bond prices.

In times of significant market downturns, investors often sell out of equity investment and bonds of lower credit quality to purchase safer instruments, like Treasury bills. This investor behavior is known as a **flight to quality** and can lead to an increase in the price of certain Treasury issues for a period of time.

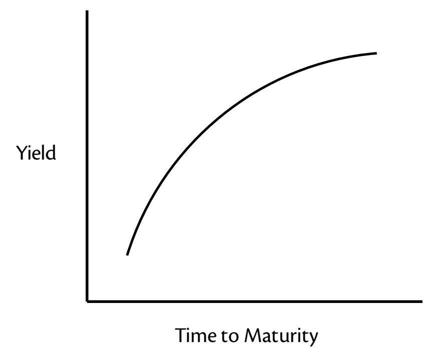
10.2.2 Yield Curve

A **yield curve** is a graph that plots the relationship between interest rates and the time to maturity. The shape of the yield curve is closely scrutinized because it gives an idea of future interest rate expectations and predicts changes in economic output and growth.

The most frequently reported yield curve compares the three-month, two-year, five-year, 10-year, and 30-year US Treasury debt. This yield curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates.

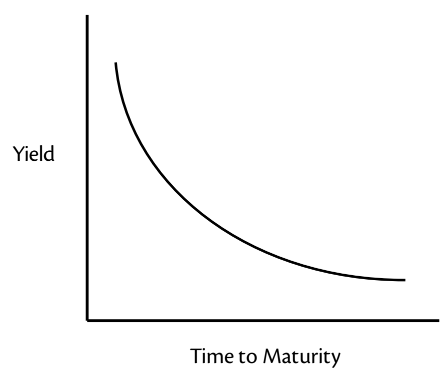
There are three main types of yield curve shapes: **normal**, **inverted**, and **flat** (or humped). A **normal yield curve** is pictured below. In this diagram, longer maturity bonds have a higher yield compared to shorter-term bonds due to the risks associated with holding a bond for a longer period of time. This is the most common yield curve shape.

Normal Yield Curve



An **inverted yield curve** reflects shorter-term yields that are higher than longer-term yields, which can be a sign of an upcoming recession.

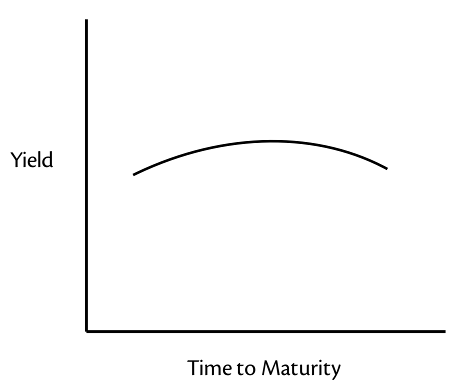
Inverted Yield Curve



> ***Knopman Note:*** **An inverted yield curve may signal an upcoming recession.**

A **flat** (or humped) **yield curve** is one in which shorter- and longer-term yields are very close to each other, which is a predictor of an economic transition.

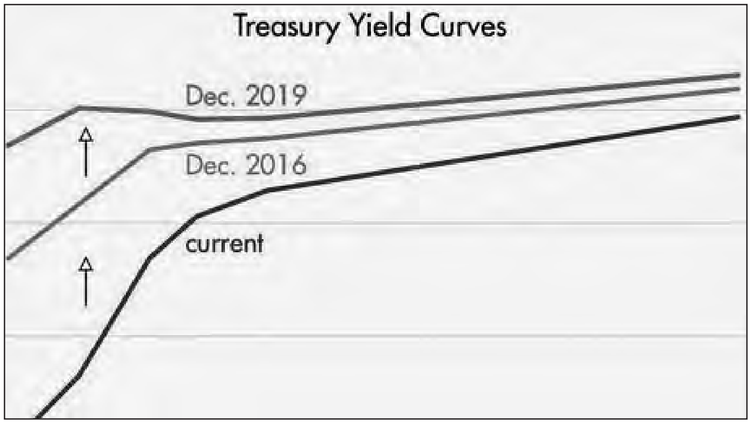
Flat (Humped) Yield Curve



The slope of the yield curve is also seen as an indication of interest rate behavior: the greater the slope, the greater the gap between short- and long-term rates.

Pop Quiz 3 *(Chapter 10)*

Answer the questions using the US Treasury yield curve shown below.



1. What does the vertical (Y) axis of this graph measure? ____________________

2. What does the horizontal (X) axis of this graph measure? ____________________

3. What is the general direction of interest rates over the period of December 2016 to December 2019? ____________________

10.2.3 Yield Spreads

The term **yield spread** refers to the difference in the quoted rates of return between two bonds or two types of bonds. It is used to compare the difference in yields of bonds with differing maturities, credit rating, liquidity, and risk.

In simple terms, the yield spread is an indication of the risk premium—or increased return—for investing in one bond over another, or against a common benchmark. It is a key metric that bond investors use to analyze the cost of a particular investment. For example, if one bond yields 5% and another yields 4%, the spread is 1% or 100 basis points.

When computing the yield spread, the yield of non-Treasury bonds is generally compared to the yield of US Treasury bonds of comparable maturity. The higher the risk of a bond, the higher its yield spread. This yield spread difference is the payment to investors to take on additional risk.

Investors usually don't require much incentive to invest in low-risk investments. For example, a bond issued by a large, well-known, and financially strong corporation will typically trade at a relatively low spread in relation to US Treasury bonds. Conversely, a bond issued by a smaller corporation with weaker financial strength will trade at a higher spread relative to Treasuries.

10.2.4 Yield Spreads and Credit Quality

When **spreads widen** between bonds with different quality ratings, the market is assumed to be forecasting more risk of default on lower-grade bonds.

For example, if a 10-year Treasury note is currently yielding 4% while 10-year, non-investment-grade bonds are averaging 6%, the spread between Treasuries and non-investment-grade bonds is 2%. If that spread widens to 4%, the market is forecasting a greater risk of default, which implies a slowing economy.

When **spreads narrow** between bonds of different quality ratings, the market is forecasting less risk, possibly due to a growing economy and increasing consumer confidence.

Usually, yield spreads increase during periods of recession and decrease during periods of expansion. The strengthening economy and increasing consumer confidence inspire greater comfort with lower-rated issues.

10.2.5 Equity Markets and the Economy

The performance of the stock market is also closely tied to economic factors. Strong business performance, increased consumer confidence, and a stable political environment all have a positive impact. Other factors that drive positive stock market performance include:

- A reduction in interest rates
- Strong employment
- Moderate inflation, and
- Increases in GDP

Individual stock performance is tied to the stock market in general, but it is also directly related to the performance of the issuing company. Good earnings or corporate expansion can cause a stock's price to go up. Poor sales and profits can cause a stock's price to drop.

Stock market performance can have a profound impact on the economy and public morale. A collapse in share prices can cause a widespread economic panic and plummeting investor confidence, while the reverse is also true. Strong market performance makes people feel wealthier, more confident, and more willing to take some financial risk.

If inflation is high, interest rates usually increase. Under these circumstances, investors may choose bond investments over stocks because bond issuers must pay higher rates to investors. This decrease in demand may weaken stock market performance overall.

10.2.5.1 Cyclical and Defensive Stocks

Stocks can be categorized by how they are affected by the performance of the economy. **Cyclical stocks** mirror the economy, strengthening when the economy is growing and declining as the economy contracts. Companies that supply capital equipment for businesses or high-ticket consumer items, such as cars and large appliances, are cyclical. These stocks can be most profitable when purchased at the bottom of a business cycle and sold at a peak, although this kind of investment strategy can be very difficult to time.

> ***Knopman Note:*** **Cyclical stocks are those that mirror the economy, strengthening when the economy is growing and declining as the economy contracts.**

Defensive stocks are resistant to changes in economic cycles. Even when most consumers and businesses cut back spending, these companies continue to profit because they supply a basic need, offer a way to cut costs, or have the lowest prices. Examples of defensive stocks include utility stocks, stocks of staple consumer items, and stocks of discount retailers like Wal-Mart. So-called "sin" stocks, including those of alcohol and tobacco companies, have also shown recession-proof tendencies.

> ***Knopman Note:*** **Defensive stocks are those that are resistant to downturns in the economy because the companies that issue them supply consumers with basic needs.**

A stock that increases during a contraction is *countercyclical*.

Interest-Rate-Sensitive Stocks

Certain stocks are held by investors for their stable stream of dividend payments. Because these stocks function like fixed-income investments, their prices are more susceptible to interest rate changes than those of other stocks. Utility stocks, real estate stocks, preferred stock shares, and REITs are examples of equity investments that are highly sensitive to interest rate changes.

Other factors, such as the industry in which a company operates, contribute to a stock's sensitivity to interest rate changes. For example, home builders will experience decreasing share prices when interest rates rise above a tolerable level, as fewer individuals are likely to purchase homes, due to the increasing cost of mortgages. Companies with large amounts of debt are also very rate sensitive, because of the increased cost of financing their debt. Utilities are among those sectors with the highest levels of debt.

10.2.5.2 Investment Performance and Inflation

The impact of inflation varies by type of asset:

Cash—Inflation causes rising interest rates; therefore, savers tend to earn a higher return when inflation is higher. However, as inflation increases, the purchasing power of cash will decrease, leading to inflationary risk.

Bonds—Inflation erodes the purchasing power of bonds' fixed interest payments. Inflation also usually leads to higher interest rates. As interest rates rise, bond prices fall. Consequently, a bond's market value is less when inflation is higher.

Stocks—Moderate inflation can increase asset values, but as it reaches high and unpredictable levels this might create higher costs for a business and hurt corporate profits.

Real estate—Higher cash flows and asset values tend to result in a positive relationship between real estate and inflation.

> ***Knopman Note:*** **As inflation increases, interest rates also increase. Therefore, as inflation increases, bond prices decrease (because of the inverse relationship between interest rates and bond prices). In a deflationary environment, interest rates will fall and therefore bond prices will increase.**

10.2.6 Company Financial Statements

The economic environment will also impact the business prospects of each individual company. In order to examine the core numbers of a specific business and understand its financial health, one can review that company's financial statements, such as its income statement and balance sheet.

10.2.6.1 Income Statement

The **income statement**, sometimes referred to as a **profit and loss statement**, reports a company's revenues, expenses, and net income over a period of time. These results indicate the profits of a company and might be measured over a quarter or a full year. A few key components of the income statement are outlined below:

- **Revenue**, or **sales**, represents the total dollar amount realized by a company through the sale of its products or services during a given time period.
- **Expenses** provides insight into the costs incurred to generate those sales. This includes variable costs, which are the direct costs associated with producing any goods that generate sales, such as raw materials, labor, and other manufacturing inputs. Additionally, it includes fixed costs of running the business, such as administrative expenses, marketing, and rent.
- **Net income** reflects the profits earned or lost during the period after taking into account the variable and fixed expenses listed above, as well as any items that might eat into company profits, such as taxes and interest expenses that might have to be paid to bondholders. This is a company's bottom line profit after every type of expense has been paid. Any dividends that a company pays to shareholders come out of its net income. The portion of net income that is not paid to shareholders is referred to as **retained earnings** and represents a reinvestment into the company to grow the business.

10.2.6.2 Balance Sheet

Unlike the income statement, which measures company performance over a quarter or year, the **balance sheet** is a snapshot of the company's assets and liabilities, taken at a moment in time. This moment is usually on the last day of a quarter or year. This financial statement is referred to as a balance sheet because, if the accounting is done properly, the balance sheet equation (as shown below) will always hold true.

Balance Sheet Equation:

Assets = Liabilities + Shareholders' Equity

or

Assets – Liabilities = Shareholders' Equity

As seen in the equation above, the three main components of the balance sheet are:

- **Assets** reflects everything a company owns. Examples include the cash it has in the bank, its securities portfolio, its inventory of product, and the property (e.g., factories or real estate) it owns.
- **Liabilities** reflects everything owed by the company. Examples include outstanding debt obligations, the cash owed to vendors and suppliers, and taxes owed to the IRS.
- **Shareholder's equity**, also referred to as **net worth**, reflects the difference between the company's assets and liabilities. Because it measures how much the company owns versus owes, it is an important metric in determining its financial health.

Working Capital

Working capital is a metric that helps to measure how much cash a company needs to finance its current operations. It can be calculated from a company's balance sheet as current assets minus current liabilities.

Example

Company XYZ has total assets of $10 million, current assets of $3 million, total liabilities of $6 million, and current liabilities of $1.5 million. XYZ's working capital would be $1.5 million (current assets of $3 million minus current liabilities of $1.5 million).

Knopman Note: **Working capital is calculated as current assets minus current liabilities. Take note that total assets and total liabilities are not relevant to the calculation.**

Progress Check

1. At which point in an economic cycle does an expansion end and a contraction begin?
   A. Inflection point
   B. Trough
   C. Peak
   D. Exhaustion point

2. When does a recession become official?
   A. It doesn't.
   B. When unemployment declines over four consecutive months
   C. When gross domestic product declines over two consecutive quarters
   D. When the Federal Reserve officially announces it

3. What type of economic indicator would an economist watch as the first sign that a recession is imminent?
   A. Leading
   B. Lagging
   C. Coincident
   D. Confirming

4. Unemployment rate is considered to be what type of economic indicator?
   A. Leading
   B. Lagging
   C. Coincident
   D. Countercyclical

5. Why do bonds often perform well during a bear market for stocks?
   A. Bond default rates decline
   B. Bond credit ratings rise
   C. Interest rates rise
   D. A flight to quality

6. In which type of yield curve are short-term interest rates higher than long-term rates?
   A. Normal
   B. Inverted
   C. Flat
   D. Convex

7. What does a widening of bond yield spreads indicate?
   A. Higher interest rates
   B. A flight into quality bonds
   C. A flattening yield curve
   D. The onset of an economic expansion

8. On a company's balance sheet, what is shareholder equity?
   A. The total value of all common stock outstanding
   B. Gross revenue minus expenses
   C. Total retained earnings
   D. Assets minus liability

Progress Check—Solutions

1. (**C**) Economic cycles can be measured from peak to peak or from trough to trough. A peak is the highest point in a given expansion and marks the beginning of an economic downturn.

2. (**C**) A recession occurs when gross domestic product declines for two or more consecutive quarters.

3. (**A**) Leading indicators, such as bond yields and manufacturing activity, tend to change *before* the economy starts to follow a particular trend, giving the first signs of any turn in an economic cycle.

4. (**B**) Unemployment rate is a lagging indicator because it does not tend to turn or accelerate in any direction until economic-cycle trends are already underway, perhaps by three to six months. It takes time for a change in the cycle to impact it.

5. (**D**) Bear markets are not necessarily a good omen for bonds. If the Fed is tightening and rates are rising, bond prices can fall. If the economy is slowing, bond defaults can rise and credit ratings can fall. However, bonds may still do well because investors become more risk-averse and flee stocks for bonds. This is called a flight to quality.

6. (**B**) Yield curves plot bond yields (Y axis) against bond maturities (X axis). Logically, investors require higher interest rates to invest in longer-term bonds. This is reflected in a normal yield curve. An unusual situation exists when short-term yields are higher than long-term—i.e., an inverted yield curve. It may mean investors are anticipating negative near-term credit events that will cause defaults or stress in shorter maturities. Or it can mean investors expect the Fed to start reducing short-term interest rates.

7. (**B**) Yield spreads measure the extra yield (interest rate) investors demand to hold lower-quality bonds versus US Treasuries or other very-high-quality bonds. Thus, yield spreads measure investors' appetite to seek higher yield in return for lower quality, or conversely to emphasize quality and safety. If spreads are widening, it means investors are emphasizing quality, perhaps because the economy is weakening.

8. (**D**) Shareholder equity is the net worth of a company, calculated as assets minus liabilities. If the company were liquidated with all debts paid, it is the value that would be returned to shareholders.

10.3 The Federal Reserve and Economic Policy

Economic policy refers to government intervention to impact economic performance. It is used either to stimulate an economy out of recession or to constrain excessive growth and prevent inflation.

10.3.1 Economic Theories

The science of economics helps explain the movement of goods in a market and incorporates the study of factors such as government spending, tax collections, money supply, and consumer spending data to propose regulation and establish policy.

10.3.1.1 Classical Economics

Adam Smith, a Scotsman who lived from 1723 to 1790, is considered the founder of modern economics. His groundbreaking book *The Wealth of Nations* was published in 1776. After studying the interactions of society and necessary goods and services, Smith concluded that individuals in society manage to produce and purchase the goods and services they need without the intervention of the government. Smith called this concept of self-regulation "the invisible hand."

Stated another way, Adam Smith believed in a free market economy that would achieve full employment through the forces of supply and demand. His followers, the **classical economists**, recommended the use of neither monetary nor fiscal policy by the government, believing that the market functions best without government interference. This hands-off policy is known as **laissez-faire economics**.

> ***Knopman Note:*** **Adam Smith is considered the founder of classical economics.**

10.3.1.2 Keynesian Economics

Keynesian economics was born during the Great Depression of the 1930s, after the US experienced unemployment of more than 25%. The experience of the Great Depression showed that market forces without intervention did not work as well as the classical economists had believed. John Maynard Keynes, an Englishman, believed that classical economics suffered from major flaws. Keynes argued for the need for government intervention to stabilize aggregate demand when it falls short of the demand level needed to generate full employment.

The early Keynesian economists recommended that the government should use **fiscal policy** (including both government spending and taxes) to make up for the shortfall in private aggregate demand and to create jobs in the private sector. Keynesian economics propose higher spending and lower taxes to stimulate the economy.

Modern Keynesians recommend **monetary policy**, in addition to fiscal policy, to manage the level of aggregate demand. For example, during the 2008 recession, a major spending package was passed by Congress in addition to aggressive efforts by the Fed to make credit available.

> ***Knopman Note:*** **Keynesian economists believe the economy is best controlled through taxation and government spending.**

10.3.1.3 Monetarism

Popularized by Milton Friedman, **monetarism** is an economic school of thought that emphasizes the role of central banks and the money supply in controlling the amount of money in circulation. Monetarists believe that variations in the money supply will have major influences over both national output and price levels.

The next section will dive into the different tools the Federal Reserve Board has for controlling the money supply and affecting interest rates.

10.3.1.4 Summary of Economic Theories

The table below summarizes the economic theories and how each is used to influence economic health:

Economic Theory	Methodology	Tools to Influence Economy
Classical	If left alone, the economy will reach a natural equilibrium.	N/A, no intervention
Keynesian	The economy should be influenced through taxation and government spending.	To stimulate growth: Increase spending and reduce taxes
		To control inflation: Decrease spending and increase taxes
Monetarist	The economy should be influenced by expanding and contracting the money supply.	To stimulate growth: Increase money supply
		To control inflation: Decrease money supply

Pop Quiz 4 *(Chapter 10)*

Indicate whether each economic policy belief shown below is likely to be the view of a classical economist, Keynesian, or monetarist, or of more than one of these.

1. A tax cut will dramatically increase consumer spending and pump millions of dollars into the economy right away. ________________

2. Whenever the Federal Reserve or Congress attempts to fix the economy, it just makes things worse. ________________

3. The economy benefits from more spending on infrastructure—roads, bridges, hospitals, and airports. ________________

4. The problem is that banks are afraid to lend money, so let's do whatever we can to increase lending. ________________

5. Higher inflation will kill the economy, so we need to prevent that at all costs. ________________

6. Government regulation is killing the ability of US companies to compete, so regulation should be reduced. ________________

10.3.2 Fiscal Policy

Fiscal policy is the use of government spending and taxation to influence the economy. It follows the economic theory of John Maynard Keynes, who advocated the use of these tools to influence aggregate demand.

10.3.3 Monetary Policy

Monetary policy is concerned with the amount of money in circulation, as well as interest rates and inflation. Its objective is to control inflation and economic growth by raising and lowering the supply of money. Monetary policy is usually supervised and implemented by a nation's **central bank** or monetary authority. In the US, monetary policy is the tool of the **Federal Reserve Board (the Fed)**.

A central bank is a banking institution that functions to control a nation's money supply. It is empowered to create the currency of that nation and control lending rates and interest rates as well as to loan money to other banks in times of need or financial crises. Central banks, like the Fed, often have oversight over other banks in the banking system.

The Fed uses a variety of tools to influence economic growth, inflation, exchange rates, unemployment, and more. These tools include:

- Open market operations
- Discount rate
- Reserve and margin requirements

> ***Knopman Note:*** **In its role as the central bank of the US, the Federal Reserve audits member banks to ensure compliance with its rules.**

10.3.3.1 Inflation and Federal Reserve Monetary Policy

Fighting inflation is one of the Fed's most important mandates. The Fed closely monitors changes in price levels through the CPI to keep the economy in balance. While there must be enough economic growth to keep wages up and unemployment low, too much growth can lead to dangerously high inflation.

A growing economy is characterized by an increase in consumer confidence and spending habits. Both businesses and consumers begin to spend more, and borrow more to fund their spending. As spending increases, the economy grows, naturally creating inflation. Once consumers expect inflation, they may buy even more before prices go up. These periods of economic growth, and the accompanying increased demand for money, place upward pressure on interest rates.

A reduced demand for borrowing is consistent with decreasing economic activity. This lack of demand during economic downturns causes the Fed to push interest rates downward. Lower interest rates encourage economic activity by making consumer spending as well as business investment and financing cheaper. The monetary policy it exercises is designed to increase the money supply. This policy ultimately causes inflation to rise because it puts more money in the hands of consumers.

Today, most economists favor a low and steady rate of inflation. Low inflation helps reduce the severity of economic recessions by enabling the labor market to adjust more quickly in a downturn. If the Fed decides that the economy is growing too fast—that demand will greatly outpace supply—it will raise interest rates, slowing the amount of cash entering the economy.

10.3.3.2 Open Market Operations

The primary tool of monetary policy is **open market operations**. The arm of the Federal Reserve Board that deals in open market operations is called the **Federal Open Market Committee**, or **FOMC**. The FOMC controls the quantity of money in circulation through the buying and selling of Treasury securities with **primary dealers**, such as J.P. Morgan Securities LLC or Citigroup Global Markets Inc.

> ***Knopman Note:*** **When the FOMC executes open market transactions, it trades with primary dealers.**

When the **Fed sells** securities, primary dealers are forced to purchase those securities, and cash is removed from the banking system. When banks have less available cash to lend, interest rates rise. This is referred to as **tightening the money supply**. It is executed by the Fed to curb inflation or prevent the economy from overheating.

When the **Fed purchases** securities, primary dealers must sell securities, receiving cash, which increases the money supply, driving down interest rates. This is referred to as **easing or loosening the money supply**. Its goal is to increase lending, spurring the economy, or bringing the economy out of a recession.

The chart below details the flow of funds under a tightening or easing of the money supply:

Objective	Federal Reserve Bank		Primary Dealer
Ease Money Supply	Buys securities.	Fed pays cash to primary dealers. → ← Fed receives securities from primary dealers.	Sells securities for cash and subsequently lends the money to others to make credit more available.
Tighten Money Supply	Sells securities for cash.	Fed sells securities to primary dealers. → ← Fed receives cash from primary dealers.	Pays cash for securities, thereby taking cash out of circulation and making credit harder to obtain.

> ***Knopman Note:*** **An easy monetary policy is when the Fed purchases securities to increase the money supply and spur economic growth.**
>
> **A tight monetary policy is when the Fed sells securities to decrease the money supply and curb inflation.**

10.3.3.3 Discount Rate

Federal Reserve Banks lend funds to other depository institutions at the **discount rate**. The term **discount rate** applies to the interest rate on credit available from the Fed.

Federal Funds Rate

Banks also lend funds to each other on an overnight basis. The interest rate charged between banks is known as the **federal funds rate**. Changes to the federal funds rate are heavily influenced by the open market operations of the Federal Reserve Board, though the rate is actually determined by supply and demand in the market. It is not set by the Fed.

Many other interest rates will change based on the fed funds rate. For example, the prime rate at which banks charge customers for loans will increase when the fed funds rate increases.

> ***Knopman Note:*** **The fed funds rate is a market-driven interest rate, and it is considered the most volatile rate in the market.**

Pop Quiz 5 *(Chapter 10)*

Match the following terms with the appropriate description.

A. Yield curve
B. Monetary policy
C. Tightening
D. Fiscal policy
E. Loosening

_____ Monetary policy that relies on increasing interest rates and reducing money supply

_____ Actions taken by central banks based on changes in interest rates and in money supply

_____ A depiction of the relationship between interest rates and time until bond maturity

_____ Actions taken by governments based on changes in taxes, budgeting, and spending

_____ Monetary policy that relies on reducing interest rates and increasing money supply

10.3.3.4 Reserve Requirements

The portion of deposits that banks are not permitted to lend, and must keep either on hand or on deposit at a Federal Reserve Bank, is called their **reserve requirement**. For example, if the reserve requirement is 10% of transaction deposits, a bank that receives a $100 deposit may lend out $90 of that deposit. As that $90 travels through the financial system and is deposited, it creates new money when it is subsequently loaned, and the cycle continues. An *increase* in the reserve requirement tightens the money supply, as banks are required to keep more money on deposit; a *reduction* in the reserve requirement is an expansionary strategy, as banks are required to keep fewer funds on deposit, allowing for more loans.

> ***Knopman Note:*** **The chart below summarizes how the Fed uses open market transactions, the discount rate, and the reserve requirement to ease or tighten the money supply.**

Fed Tool	Ease Money Supply	Tighten Money Supply
Open Market Transactions	Buy govt. securities	Sell govt. securities
Discount Rate	Lower rate	Raise rate
Reserve Requirement	Lower requirement	Raise requirement

10.3.3.5 Margin Requirements

Regulation T governs the extension of credit by US broker-dealers in margin accounts, which will be discussed in more detail in later chapters. The Fed has the authority to establish the initial margin requirement, which can impact the leveraging potential and buying power of customers. This initial requirement was established as 50% in 1974, and the Fed has not deemed it necessary to modify it.

The interest paid by investors in a margin account is based upon the **broker call rate**. The broker call rate is the rate a broker-dealer pays a bank when the broker-dealer borrows money so that a customer can purchase securities on margin.

> ***Knopman Note:*** **Lowest to highest interest rates—fed funds, discount rate, broker's call rate, prime rate.**

Pop Quiz 6 *(Chapter 10)*

Check all the statements that are TRUE about Federal Reserve policy.

_____ High interest rates usually cause higher inflation.

_____ If consumers are borrowing less, it is a sign the economy is slowing.

_____ The Fed executes open market operations by raising or lowering the discount rate.

_____ When the Fed sells securities, it is pursuing an expansionist monetary policy.

_____ To stimulate economic growth, the Fed reduces the discount rate

10.4 International Economic Factors

International trade represents a significant share of the US GDP. A product or service that is sold to a trading partner in another country is an **export**, while a product that is bought from a trading partner in another country is an **import**.

10.4.1 Balance of Trade

Balance of trade is the difference between a country's exports and imports. **Debit items** include imported goods, foreign aid, domestic spending abroad, and domestic investments abroad. **Credit items** include exported goods, foreign spending in the domestic economy, and foreign investments in the domestic economy.

Balance of Trade = Credit Items – Debit Items

A country has a **trade deficit** if it has a larger debit balance with more imports than exports, and a **trade surplus**, or a larger credit balance, if it exports more than it imports.

In a recession, countries try to export more, with the intent of creating new jobs and increasing demand. In a strong expansion, countries prefer to import more, providing price competition. This helps limit inflation and, without increasing prices, provides goods beyond the economy's ability to meet supply. A trade deficit is not helpful during a recession, but it may boost economic performance during an expansion.

Historically, the United States has been among the largest importers due to dependency on energy imports (e.g., oil) and demand for consumer products. Therefore, the US has had a trade deficit every year since the mid '70s. Conversely, China produces and exports some of the world's most popular consumer goods, and therefore almost always has a trade surplus.

10.4.2 Exchange Rates

An **exchange rate** specifies how much one currency is worth in terms of another. It is the value of a foreign nation's currency in terms of the home nation's currency. For example, if the exchange rate of the Canadian dollar is quoted at 1.07, it takes 1.07 Canadian dollars to purchase one US dollar.

Changes in currency exchange rates can have a huge impact on both business profits and securities prices. When the US dollar *weakens* against another currency, that currency is worth more dollars. In this case, foreign investment in the US dollar will decline. Imports will also decline, as they will be more expensive to US businesses and consumers. On the other hand, a weaker dollar makes importing US goods more attractive to foreign countries. Therefore, exports will increase.

When the US dollar *strengthens* against another currency, the dollar buys more of that currency. Foreign investment will increase, as foreign investors will be attracted to a strong US dollar. US imports will increase, as it will be cheaper for US businesses and consumers to purchase foreign goods. Finally, US exports will decrease, as US goods will be expensive for consumers in many foreign countries.

In moderate inflationary periods:

- The US dollar will typically strengthen.
- Interest rates and bond yields will likely move upwards, driving bond prices down.
- While high inflation can be negative for a currency, a certain amount of inflation is healthy for an expanding economy.

> ***Knopman Note: Purchasing power parity*** **determines the strength of a country's currency by comparing how much it costs to buy the same basket of goods in another's. It is used to determine the exchange rate between the currencies of different countries.**

10.4.3 Interaction of Foreign and Domestic Interest Rates

The US economy and the world economy are interdependent in many ways. Economic developments in this country have a major influence on economic stability, production, employment, and prices beyond our borders; developments abroad also affect our economy significantly. Because of this linkage, the Fed participates directly in international economic affairs.

The dollar's exchange value in terms of other currencies is influenced by the Fed's monetary policy. The Fed engages in the purchase and sale of foreign currency to counter disorderly conditions in exchange markets. For example, during episodes of downward pressure on the dollar, the Federal Reserve has purchased dollars (sold foreign currency) to support the price. Similarly, the Federal Reserve may sell dollars (purchase foreign currency) to counter upward pressure.

Domestic interest rates significantly influence world economic activity. For example, if Federal Reserve actions increase US interest rates, the foreign exchange value of the dollar generally rises. This happens because investors will shift assets into US dollars to chase those higher rates (e.g., via purchasing US Treasuries). An increase in the foreign exchange value of the dollar, in turn, increases the price of US goods and lowers the price of goods imported into the US. A restraint on exports and a boost on imports could lower output and price levels in the US economy. An increase in domestic interest rates will also encourage foreign investment.

In contrast, an increase in interest rates in a foreign country could raise worldwide demand for assets denominated in that country's currency and reduce the dollar's value. All things being equal, US output and price levels would tend to increase—exactly the opposite of the result of a rise in US interest rates. Investments may also flow from the US to the foreign country that has higher interest rates.

Knopman Note: **Foreign investment and foreign trade are heavily influenced by US interest rates. Below is a summary:**

US interest rates ↑ means	Dollar's value ↑	Exports ↓	Imports ↑
US interest rates ↓ means	Dollar's value ↓	Exports ↑	Imports ↓

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 10)*

(**D**) Expansions usually begin with low interest rates, which help increase consumer and business borrowing. The resulting investment and economic growth (rising GDP) leads to declines in unemployment. However, the Fed must begin to gradually raise interest rates to keep the economy in check and prevent high inflation.

Pop Quiz 2 *(Chapter 10)*

Economic Indicator	Leading	Coincident	Lagging
Unemployment Rate			X
Consumer Spending		X	
GDP		X	
Bond Yields	X		
Stock Market	X		
Personal Income		X	
Balance of Trade			X

Pop Quiz 3 *(Chapter 10)*

1. What does the vertical (Y) axis of this graph measure? **Interest rates**
2. What does the horizontal (X) axis of this graph measure? **Bond maturities, from short term (left side) to long term (right side)**
3. What is the general direction of interest rates over the period of December 2016 to December 2019? **Rising**

Pop Quiz 4 *(Chapter 10)*

1. **Keynesians** love tax cuts.
2. **Classical economists** believe in small government.
3. **Keynesian**, if the infrastructure spending is to come from the government. **Classical economist**, if it is to come from private enterprise. Some proposals for massive US infrastructure spending combine both government spending and private investment, which blends both economic schools.
4. **Monetarists** focus on expanding or contracting credit. Bank lending drives the creation of credit.
5. **Monetarists** believe in fighting inflation with tighter monetary policies. Fiscal policies are not very effective at preventing high inflation.
6. **Classical economists** believe in smaller government and in a greater role for free enterprise.

Pop Quiz—Solutions (Continued)

Pop Quiz 5 *(Chapter 10)*

C Monetary policy that relies on increasing interest rates and reducing money supply

B Actions taken by central banks based on changes in interest rates and in money supply

A A depiction of the relationship between interest rates and time until bond maturity

D Actions taken by governments based on changes in taxes, budgeting, and spending

E Monetary policy that relies on reducing interest rates and increasing money supply

Pop Quiz 6 *(Chapter 10)*

___ High interest rates usually cause higher inflation. **It is low interest rates that help to expand credit and contribute to excess money supply, causing higher inflation.**

X If consumers are borrowing less, it is a sign the economy is slowing. **Reduced credit demand indicates economic concerns among US households, while also reducing consumer spending.**

___ The Fed executes open market operations by raising or lowering the discount rate. **These are separate tools the Fed uses to influence monetary policy. In open market operations, the Fed buys or sells securities.**

___ When the Fed sells securities, it is pursuing an expansionist monetary policy. **This is contractionist. Selling securities soaks up funds and shrinks the money supply.**

X To stimulate economic growth, the Fed reduces the discount rate. **Small increments of change enable the Fed to implement monetary policy gradually over time.**

Unit Exam

1. An economist who advocates a combination of higher government spending and lower taxes to stimulate the economy is likely to belong to which school of economics?
   A. Interventionism
   B. Monetarism
   C. Keynesian
   D. Mercantilism

2. Working capital is calculated as:
   A. current assets minus current liabilities.
   B. total assets minus total liabilities.
   C. current assets divided by current liabilities.
   D. total assets divided by total liabilities.

3. Which type of economist believes the economy should be left alone to reach a natural equilibrium of its own accord?
   A. Keynesian
   B. Monetarist
   C. Classical
   D. Mercantilist

4. If the Federal Reserve believes the economy is growing too fast and higher inflation is a potential hazard, what monetary policy action might it take?
   A. Reduce interest rates
   B. Raise interest rates
   C. Keep interest rates the same
   D. Buy government securities in the open market

5. How does the Federal Reserve conduct its open market operations?
   A. By making short-term loans to banks
   B. By issuing new government securities to the public
   C. By trading securities with primary dealers
   D. By changing interest rates

6. If the Federal Reserve is simultaneously increasing interest rates and selling securities in open market operations, what type of monetary policy is it pursuing?
   A. Loosening
   B. Tightening
   C. Moderating
   D. Accelerating

7. If the Federal Reserve is pursuing monetary policy by buying government securities and reducing the discount rate, what other Fed action is compatible with this same strategy?
   A. Increase bank fees
   B. Increase margin requirements
   C. Reduce reserve requirements
   D. Increase the broker call rate

8. Why does the US have a trade deficit?
   A. Because interest rates are low
   B. Because US employment is high
   C. Because the US government spends more than it takes in
   D. Because the US imports greater value than it exports

9. What does the real GDP of the US measure?
   A. Unemployment
   B. Wages adjusted for inflation
   C. Employment adjusted for population growth
   D. Economic growth adjusted for inflation

10. Which one of the following terms does *not* describe a phase in an economic cycle?
   A. Trough
   B. Contraction
   C. Stagflation
   D. Peak

Unit Exam (Continued)

11. In which phase of an economic cycle would you expect the Federal Reserve to gradually begin raising interest rates?

    A. Expansion
    B. Peak
    C. Contraction
    D. Trough

12. Is the performance of US stocks (e.g., S&P 500 Index) considered an economic indicator? If so, what type?

    A. Yes, it is a leading indicator.
    B. Yes, it is a coincident indicator.
    C. Yes, it is a lagging indicator.
    D. No, it has not proven reliable as an indicator.

13. Historically, an inverted yield curve has often been a sign of what potential trend?

    A. A stronger stock market ahead
    B. A weakening economy ahead
    C. Higher interest rates ahead
    D. Higher inflation ahead

14. Why are stocks of discount retailers and grocers considered defensive stocks?

    A. They do well in expansions, when people consume more.
    B. They hold value in recessions, when people buy cheaper goods.
    C. They do well in times of high inflation.
    D. They do well when interest rates are rising.

15. Why are many utility stocks considered interest-rate-sensitive?

    A. They typically pay a high rate of dividends.
    B. Utility companies' revenues are tied to interest rates.
    C. Households use less electricity during economic phases when interest rates are rising.
    D. The Federal Reserve provides special interest rates to utilities.

16. ABC Corp has net income of $100 million, assets of $1 billion, and liabilities of $500 million. What is its shareholder equity?

    A. $400 million
    B. $500 million
    C. $600 million
    D. It can't be determined from the information given.

Unit Exam—Solutions

1. (**C**) After the Great Depression of the 1930s, John Maynard Keynes argued for more government intervention to stabilize aggregate demand when it falls short of levels needed for full employment. Modern Keynesian economists believe the economy should be heavily influenced by active government involvement.
2. (**A**) Working capital is calculated as current assets minus current liabilities.
3. (**C**) Classical economists believe economies are governed by natural self-correcting laws and should be left to free-market forces. They argue for no government intervention.
4. (**B**) By raising interest rates, the Fed discourages borrowing, which can help put the brakes on an overheating economy. Also, the Fed could sell government securities in the open market, which would have the impact of withdrawing cash from the economy.
5. (**C**) The Fed's open market operations are designed to inject cash into the economy or remove cash from the economy. The operations are carried out by trading securities with primary dealers, large financial institutions. To stimulate the economy, the Fed buys securities from the dealers, which has the effect of pumping cash into the economy.
6. (**B**) Fed actions to stimulate economic growth are said to be loosening the money supply. Fed actions to dampen economic growth and control inflation are said to be tightening the money supply.
7. (**C**) In addition to the discount rate and open market operations, a third monetary policy tool the Fed can use is to change bank reserve requirements—the portion of deposits that banks are not permitted to lend. A higher reserve requirement is consistent with a tightening monetary policy. A lower reserve requirement is consistent with a loosening policy.
8. (**D**) Balance of trade measures the difference between the value of a country's exports and its imports. A trade deficit means the value of imports exceeds exports—money is flowing out of the country.
9. (**D**) When financial headlines discuss gross domestic product (GDP), they are usually referencing the change in real GDP year over year—i.e., economic growth adjusted for inflation.
10. (**C**) Economic cycles have four phases. In order, they are expansion, peak, contraction (recession), trough. An expansion ends with a peak, and a recession ends with a trough. Stagflation is a term that describes a period of slow economic growth combined with high or rising inflation.
11. (**A**) Working capital is calculated as current assets minus current liabilities.
12. (**A**) The stock market is considered an important leading indicator of economic activity and cycles.

Unit Exam—Solutions (Continued)

13. (**B**) An inverted yield curve has often been an accurate way to predict a weakening economy and a recession ahead. An inverted yield curve (lower long-term yields than short-term yields) means investors are preferring to pile into long-term securities, rather than hold short-term maturities. They do this mainly because they believe the Fed is about to start a cycle of interest rate cuts, which will benefit long-term bonds the most.

14. (**B**) During recessions, defensive stocks hold value better than the stock market as a whole. This can be due in part to substitution—the tendency of households to buy lower-priced goods during tough times. Discount retailers and grocers also sell large quantities of consumer staples—items people need and use all the time, even during recessions. Toothpaste is an example.

15. (**A**) Because utility companies typically pay a stable stream of dividend payments, they are more susceptible to interest rate changes than other stocks.

16. (**B**) Shareholder's equity is shown on a company's balance sheet as assets minus liabilities. It is the bottom line of the balance sheet, while income is recorded as the bottom line of the income statement.

Section 3:

Customer Accounts

Customers are the lifeblood of the securities business. For SIE candidates, it is essential to understand the various types of customers and the different account types that are relevant for each. This section will review all the various customer accounts, from individual brokerage accounts to retirement accounts, as well as the rules and procedures that must be followed to protect client assets and information.

KNOPMANMARKS
FINANCIAL TRAINING

11. Customer Accounts

Customers opening brokerage accounts with broker-dealers to buy and sell securities is the foundation of the securities industry. Different rules and procedures apply to various types of customer accounts, based on account ownership and status. Firms also have ongoing requirements to maintain customer accounts by providing their clients with all the necessary disclosures, while simultaneously protecting their clients' assets and information. This chapter will discuss:

- Opening accounts
- Types of accounts
- Forms of account ownership
- Maintenance of accounts
- Safeguarding of customer information and assets

Chapter Goals

- Know the steps for opening a new account, from cold-calling and completing a new account form on behalf of the client to principal approval.
- Describe the documentation required for each account type.
- Distinguish between the different account types and account titles.
- Understand what makes a transaction discretionary.
- Be able to list the different types of account documents that must be sent to customers.
- Compare and contrast the protections provided by the FDIC and SIPC.

Key Terms

- **Cash account**—A type of brokerage account in which customers must pay in full for securities
- **Margin account**—A type of brokerage account that allows the customer to purchase securities using funds borrowed from the broker-dealer
- **Regulation T**—A Federal Reserve Board regulation that establishes the requirement for customers to deposit 50% of the market price (called the initial margin requirement) when they purchase or sell securities short on margin
- **Options agreement**—A document that a customer must sign and return within 15

days after their account has been approved for options trading, in order to continue to be able to purchase and exercise options

- **Discretionary account**—An account in which a registered representative who has written authorization from the customer can trade on behalf of the client and select one or more of the following: 1) action—buy or sell, 2) asset—which security to buy or sell, and 3) amount—the number of shares to sell
- **Joint tenants in common (JTIC) account**—A type of joint brokerage account in which ownership is divided, meaning each account holder owns a specified percentage of the assets based on their contributions. At death, each account holder's specified percentage is distributed to that person's beneficiary rather than to the surviving account holders.
- **Joint tenants with rights of survivorship (JTWROS) account**—A type of joint brokerage account, most common for married couples, in which ownership is undivided, meaning all owners own 100% of the assets. At death, each account holder's interest in the account passes to the surviving owners.
- **Minor account**—A type of brokerage account, set up under the Uniform Gifts to Minors Act or the Uniform Transfers to Minors Act, that is established for the minor's benefit, but run by a custodian who manages the account for the minor's best interests
- **Trade confirmation**—A document that a customer must receive after each trade, no later than settlement, detailing the key terms of the transaction, including the security, price, and fees charged
- **Regulation S-P**—An SEC regulation that aims to ensure the security and confidentiality of a customer's personal information
- **Securities Investor Protection Corporation (SIPC)**—A nonprofit corporation that protects each separate customer for up to $500,000 in cash and securities, limited to $250,000 in cash, in the event a broker-dealer goes bankrupt

11.1 Opening New Accounts

Registered representatives of a broker-dealer are authorized to open new accounts for customers, subject to a principal's approval. New accounts may be opened for single or multiple individuals, business entities, institutions, trusts, and investment clubs. This section will discuss the regulations relating to firm telemarketing as well as the rules and procedures associated with opening a new account.

11.1.1 Telemarketing

Firms often solicit new business by cold-calling or faxing potential clients. MSRB Rule G-39 and FINRA Rule 3230 limit these activities to persons who are not current customers of the firm. Persons who are making calls on behalf of a firm can do so between the hours of **8:00 am and 9:00 pm** in the local time of the person being called.

> ***Knopman Note:*** **Cold calls are permitted between 8:00 am and 9:00 pm in the time zone of the person being called.**

Any scripts used for telemarketing are considered retail communications and must be approved by a principal before first use.

The rule also stipulates that the following information must be disclosed when a solicitation is made by phone:

- The name of the caller and the firm with whom the caller is associated
- The telephone number and the address at which the caller can be contacted, and
- The reason for the call (e.g., soliciting new business)

The **telemarketing rule** also requires a **do-not-call list**. Persons who do not wish to receive these solicitations must be added to the firm's internal list and cannot be called again for an indefinite period of time. Additionally, persons who are registered with the Federal Trade Commission's national do-not-call registry cannot be contacted.

> ***Knopman Note:*** **Once individuals are added to the firm's internal do-not-call list, they remain there indefinitely.**

These rules do not apply to existing customers of the firm or contacts made to other firms. Additionally, the rule does not apply if the registered representative has a personal relationship with the individual or has received that person's prior written consent.

> ***Knopman Note:*** **A registered representative can call an individual on the do-not-call list if the individual is an existing customer of the firm, the registered rep has a personal relationship with the individual, or if the individual has provided prior written consent.**

Pop Quiz 1 *(Chapter 11)*

A registered representative calls an investor whose name is on the federal do-not-call registry and reads a script, urging the investor to consider looking at a growth mutual fund. For this call to meet regulations, which of the following must be TRUE?

I. The rep must have a personal relationship with the investor.
II. The call can't be placed to the investor's home.
III. The script must be approved by a principal of the firm before it is used.
IV. The investor must have prior experience with mutual funds.

A. I and II
B. I and III
C. II and III
D. I and IV

Answers to chapter 11 pop quizzes begin on page 358

11.1.2 New Account Form

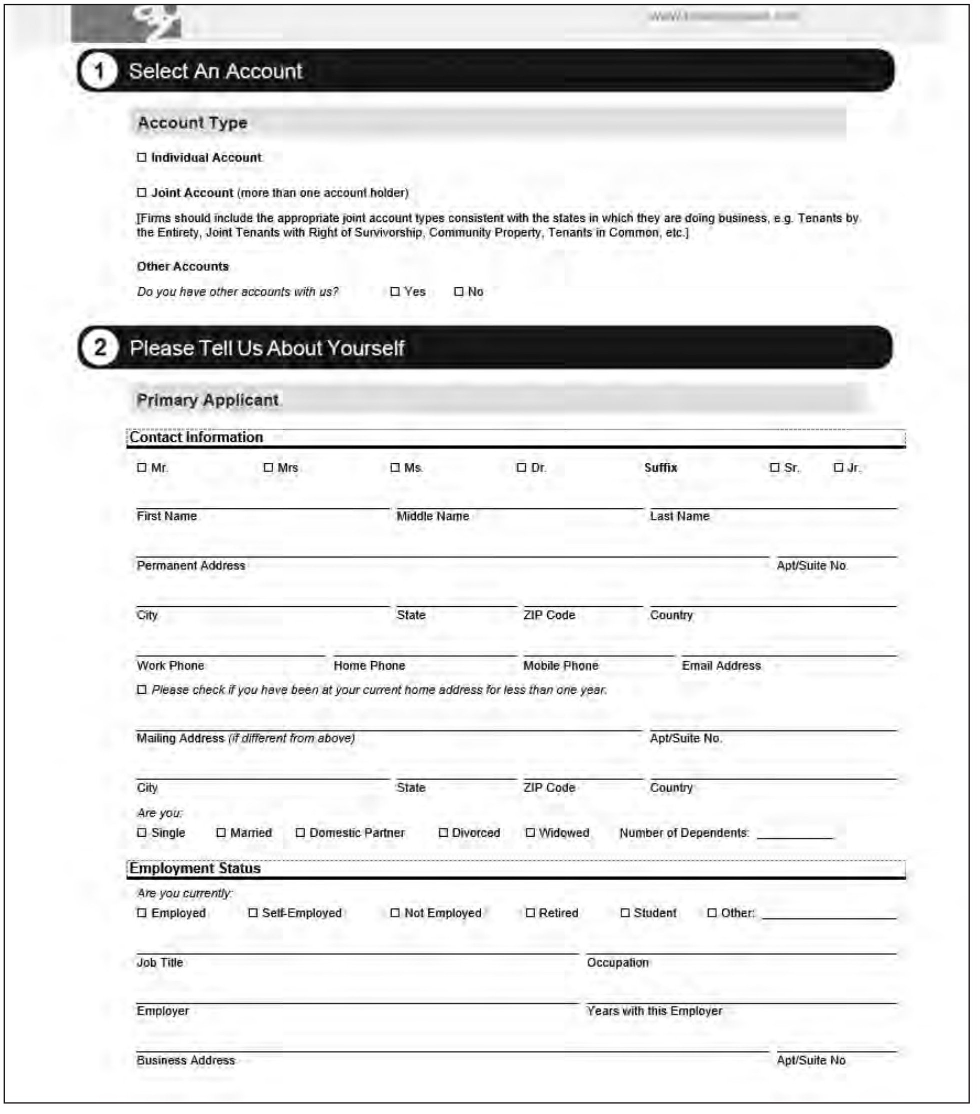
If a customer decides to open a new account with a broker-dealer, he needs to provide certain information to the registered representative of the opening firm. FINRA Rule 4512 requires that the following information be documented on each new account application or form:

- Full legal name
- Legal US address
- Telephone number (residence and business)
- Social Security or Tax Identification number
- Date of birth
- Employment status, including occupation of the customer and whether the customer is an employee of a broker-dealer
- Citizenship status
- Annual income
- Net worth (excluding the value of primary residence)
- Tax bracket
- Investment objectives
- Investment experience
- Risk tolerance

Much of this information, which is necessary to determine the suitability of the transactions for the account, must be submitted to a designated principal at the broker-dealer for review. The account will be accepted or declined by the firm based on this documentation.

A sample **new account form** is shown below, for context:

> ***Knopman Note:*** **Broker-dealers are required to maintain a record of new account forms.**



1 Select An Account

Account Type

☐ **Individual Account**

☐ **Joint Account** (more than one account holder)

[Firms should include the appropriate joint account types consistent with the states in which they are doing business, e.g. Tenants by the Entirety, Joint Tenants with Right of Survivorship, Community Property, Tenants in Common, etc.]

Other Accounts

Do you have other accounts with us? ☐ Yes ☐ No

2 Please Tell Us About Yourself

Primary Applicant

Contact Information

☐ Mr. ☐ Mrs ☐ Ms. ☐ Dr. **Suffix** ☐ Sr. ☐ Jr.

First Name ____ Middle Name ____ Last Name ____

Permanent Address ____ Apt/Suite No. ____

City ____ State ____ ZIP Code ____ Country ____

Work Phone ____ Home Phone ____ Mobile Phone ____ Email Address ____

☐ *Please check if you have been at your current home address for less than one year.*

Mailing Address *(if different from above)* ____ Apt/Suite No. ____

City ____ State ____ ZIP Code ____ Country ____

Are you:

☐ Single ☐ Married ☐ Domestic Partner ☐ Divorced ☐ Widowed Number of Dependents: ____

Employment Status

Are you currently:

☐ Employed ☐ Self-Employed ☐ Not Employed ☐ Retired ☐ Student ☐ Other: ____

Job Title ____ Occupation ____

Employer ____ Years with this Employer ____

Business Address ____ Apt/Suite No. ____

> ***Knopman Note:* An introducing broker-dealer has the direct relationship with the client—the introducing firm can open accounts and accept customer orders, but it does not handle customer assets or the mechanics of the actual trade. This contrasts with a clearing firm, which is responsible for processing and settling customer transactions, as well as maintaining custody of customer cash and securities.**

Numbered Accounts

Notwithstanding the above, FINRA Rule 3250 allows broker-dealers, at a customer's request, to open accounts that are identified only by a symbol or number, but not an alias (e.g., John Doe), in order for the account holder to remain anonymous. However, the customer must still provide a written statement of ownership and proof of identity.

> ***Knopman Note:*** **When a customer opens a numbered account, the broker-dealer must still receive a written statement of ownership and proof of identity from the client.**

11.1.3 The Broker-Dealer Suitability Obligation

As discussed in a previous chapter, industry regulations require that broker-dealers and registered representatives follow the know-your-customer rule, meaning they must understand the essential facts of each client. The purpose of this rule is to ensure that firms know all the key facts necessary to make appropriate investment recommendations to clients.

Examples of these key facts include:

- The customer's financial status
- The customer's tax status
- The customer's investment objectives

This information must be obtained from the customer **before execution** of a recommended transaction. If a customer refuses to disclose this information, the account can still be opened, but the rep cannot make any recommendations.

Example

Susan fills out a new account form to open an account at ABC Brokerage. She provides important legal information but declines to disclose her net worth and total income. In this case, the account may be approved, but the rep managing the account cannot recommend any particular securities. Only unsolicited orders (meaning those initiated by the customer) can be taken.

11.1.4 Account Approval

The opening of an account must be approved by a designated principal, i.e., a supervisor, prior to or promptly after the completion of any transaction for the account. This written approval becomes part of the permanent account record, and indicates that the account is compliant with the firm's policies and procedures.

The customer and the registered representative do not need to sign the new account form. It is only signed by the designated principal who approves the new account.

11.1.5 Verification of Customer Information

SEC Rule 17a-4 requires firms to ensure that customer account information is accurate and up to date. After a new account is opened, a firm has 30 days to send the new customer a request for verification of the account information. The customer is asked to make any corrections to the account record and return it to the broker-dealer.

If the customer notifies the firm of a change, the firm must send an updated account record for verification within 30 days of receiving the customer's notice. On an ongoing basis, this same verification must be sent once every 36 months, and in accounts with joint ownership, these notices must be sent to each owner.

11.2 Types of Retail Accounts

Registered representatives must understand the type of account most appropriate for each client and that client's particular needs, requirements, and investment objectives.

11.2.1 Cash Accounts

In a **cash account**, a customer must pay in full for securities. The customer can purchase securities for up to the amount of cash deposited. Usually, the account is opened with a cash deposit, and trades can be placed as long as the cash is sufficient to cover the cost of the securities. The proceeds of any securities sold are usually deposited into the account. There is no limit on the amount of cash that may be maintained in a cash account, and customers have the right to withdraw cash balances held in a cash account at any time, in whole or in part.

Trades made in a cash account usually settle T + 2, though most brokers require customers to pay for securities purchased prior to settlement.

11.2.1.1 Regulation T Settlement and Free-Riding

Although regular way settlement requires payments on T + 2, Regulation T (discussed shortly in more detail) mandates that investors must pay for all purchases within four business days of the trade (T + 4).

If the customer has purchased securities and does not pay for them by T + 4, the broker-dealer may ask its self-regulatory organization (e.g., FINRA) for additional time on behalf of the customer. If no extension is received, the position must be sold out on the morning of the fifth day, and the account must be frozen for 90 days. If the customer has a payment shortage of $1,000 or less, firms have discretion to leave the account unfrozen.

When a customer account is frozen, transactions are limited to sell orders and purchases provided the customer has sufficient funds in the account prior to the transaction.

If a customer purchases a security and sells the same security without first paying for it, the broker-dealer will freeze the customer's account and will not release the sales proceeds to the customer until the customer pays for the original purchase. This customer activity is referred to as **free-riding**—literally meaning that the customer got a "free ride" for the shares. If the customer pays for the original purchases before the Reg T four-day deadline, the broker-dealer lifts the frozen status.

> ***Knopman Note:* Free-riding is a violation in which an investor sells her securities without ever paying for them.**

Example

Susan purchases ABC stock on Monday in a regular way transaction, which means the trade will settle on Wednesday. On Tuesday, Susan sells ABC stock in a cash transaction, meaning the transaction will receive same-day payment and settlement. Susan then uses those sales proceeds to pay for her original purchase. This is free-riding, and Susan's account will be frozen.

11.2.2 Margin Accounts

Margin accounts allow customers to purchase securities using money borrowed from a broker-dealer. Securities held in the account serve as collateral. Margin accounts allow a customer to take on leverage, which can magnify gains or losses in the account. FINRA Rule 4210 details many of the rules governing margin accounts.

> ***Knopman Note:*** **All short sales must be executed in a margin account.**

11.2.2.1 Regulation T

The Federal Reserve Board's **Regulation T** establishes initial margin requirements for the purchase or short sale of securities. When purchasing or selling securities short on margin, Reg T requires customers to deposit at least 50% of the market value. This allows customers to borrow the remaining 50% of the purchase price from their broker-dealer. The Reg T deposit amount is also referred to as the **initial margin**. Although the Fed can change the initial requirement, it has been 50% since 1974.

Securities that are exempt from SEC registration, such as US government securities and municipal bonds, are exempt from Regulation T as well, and instead must meet the margin requirements established by the firm's self-regulatory organization—e.g., FINRA.

> ***Knopman Note:*** **Reg T requires customers to deposit 50% of the purchase price in equity, allowing them to borrow the remaining 50% from the broker-dealer.**

Example

Bob wants to purchase $100,000 of Apple stock on margin. He is required to deposit $50,000 in cash into the account and can borrow the remaining $50,000 from his broker-dealer. Note that, if Bob wanted to make the same purchase using his cash account, he would have to deposit the full $100,000, as cash accounts require customers to pay in full.

11.2.2.2 FINRA Initial Minimum Equity Requirements

FINRA imposes further restrictions on initial margin transactions. A **minimum initial margin requirement** comes into play for transactions of a smaller dollar amount ($4,000 and under).

- For **long margin** transactions, the customer must deposit a **minimum of $2,000 or 100% of the purchase price** of the securities, whichever is less.
- For **short margin** transactions (customer is selling stock short), the customer must deposit **a minimum of $2,000**, even if 100% of the sale price of the securities is less.

For relatively small initial investments, it is likely that the FINRA requirement will supersede Regulation T. For example, an investor who purchases $3,200's worth of stock in a long margin account would be required to deposit equity of at least $2,000 to be compliant with FINRA, even though the Reg T requirement is only $1,600.

***Knopman Note:* The table below summarizes the interaction between Reg T and FINRA initial equity requirements:**

Type of Transaction	Purchase Amount	Minimum Required Deposit	Governing Rule
Long Purchase	Up to $2,000	100% of purchase price	FINRA
	$2,000 up to $4,000	$2,000	FINRA
	Greater than $4,000	50% of purchase price	Reg T
Short Sale	Up to $2,000	$2,000	FINRA
	$2,000 up to $4,000	$2,000	FINRA
	Greater than $4,000	50% of purchase price	Reg T

Pop Quiz 2 *(Chapter 11)*

For each situation, indicate the minimum amount of cash the investor must have in the account to complete the initial purchase in the account described.

1. Investor wants to buy 100 shares of ABC stock at $42 per share in a cash account

   ____

2. Investor wants to short 100 shares of ABC stock at $30 per share in a margin account

   ____

3. Investor wants to buy 100 shares of XYZ stock at $12 per share in a margin account

   ____

4. Investor wants to short 100 shares of XYZ stock at $10 per share in a margin account

   ____

5. Investor wants to short 1,000 shares of XYZ stock at $12 per share in a margin account

   ____

11.2.2.3 FINRA Minimum Maintenance Requirements

After trading begins, the price of stock held in a margin account is subject to market fluctuation. To ensure there is sufficient equity in the account even when market fluctuations move against the customer, FINRA established a **minimum maintenance requirement** that must be met at all times.

- For **long margin** accounts, the FINRA maintenance requirement is **25% of the long market value** of the account.
- For **short margin** accounts, the FINRA maintenance requirement is **30% of the short market value** of the account.

Brokerage firms must ensure that the customer's maintenance margin is sufficient at the end of each day. The process of calculating the equity required to reflect gains and losses at the end of a trading period is called **marking to the market**.

> ***Knopman Note:* Margin accounts (including both long and short positions) are marked to market daily.**

Margin Maintenance Calls

If the equity in the account falls below the maintenance requirement, the customer will receive a **maintenance call**, often referred to as a **margin call**, to bring the equity back to the minimum maintenance requirement.

Example

In a long margin account, a customer who owns stock worth $80,000 must maintain equity of at least $20,000 (25%). If the customer's equity is only $18,000, the customer will be subject to a $2,000 margin call.

Margin accounts that drop below minimum equity levels require "prompt" action, per FINRA, though brokerage firms may require *immediate* action. If the investor does not supply the required money or securities, the firm can sell securities in the account to bring it into conformity.

11.2.2.4 Securities Available for Purchase on Margin

Not all securities can be purchased on margin by a customer. The Federal Reserve Board determines whether a security is eligible to be purchased on margin. Those that may be purchased on margin include:

- Exchange-listed stocks (e.g., NYSE and Nasdaq listings)
- OTC stocks approved by the Fed
- Bonds
- Closed-end funds
- Exchange-traded funds (ETFs)
- LEAPS options with more than nine months until expiration, and
- fixed-income securities such as Treasury bonds

The Federal Reserve Board restricts the following securities from purchase on margin:

- Initial public offerings (IPOs) for the first 30 days after the effective date
- OTC stocks not approved by the Federal Reserve Board
- Mutual funds
- Options contracts with nine months or less until expiration, and
- Annuities

While mutual funds cannot be purchased in a margin account, they can be used as collateral for margin borrowing after they have been held for a minimum of 30 days.

> ***Knopman Note:*** **Make sure to review which securities can and cannot be purchased on margin.**

11.2.2.5 Margin Agreement

Now that we have covered the essentials of a margin account, this section will explore the **margin agreement**, which customers must sign and return to their brokerage firms before they begin trading in their margin accounts. The margin agreement has three parts, which are discussed below.

Hypothecation Agreement

In the **hypothecation agreement**, the customer agrees to hypothecate, or pledge, securities in the account as collateral for margin (credit) from the broker-dealer. Hypothecation essentially permits customers to take loans against securities they own. The customer also agrees that the broker-dealer may re-hypothecate the securities in the account, meaning it will re-pledge them as collateral to a bank.

To facilitate the hypothecation process, the securities in margin accounts must be held in **street name**, meaning in the name of the broker-dealer.

> ***Knopman Note:*** **In a margin account, the customer agrees to hypothecate, meaning pledge, the securities in the account as collateral for a loan.**

Credit Agreement

Customers borrow money from their broker-dealers and pay interest on the borrowed money at the terms and conditions stated in the **credit agreement**. Broker-dealers borrow funds for loans to customers from banks at the **broker call rate** and charge interest based on this rate (see the sample table below).

Debit Balance	Margin Interest Rate
\$0–\$49,999	4.25% (Broker Call + 2%)
\$50,000–\$99,999	3.50% (Broker Call + 1.25%)
\$100,000–\$249,999	2.75% (Broker Call + 0.50%)
\$250,000–\$499,999	2.25% (Broker Call + 0%)
\$500,000–\$999,999	1.75% (Broker Call – 0.50%)
\$1,000,000 + 1.50%	(Broker Call – 0.75%)
Broker Call Rate = 2.25%	

Loan Consent Form

Technically optional, the third part of the margin agreement, the **loan consent form**, authorizes the broker-dealer to lend stock held in the customer's account to other investors for short sales. For this activity to be permitted, FINRA Rule 4330 mandates that customers provide written authorization to the firm to allow the borrowing of their securities. Additionally, the firm must provide clear disclosures regarding the risks of short sales and its rights with regard to the loaned securities.

> ***Knopman Note:*** **If signed by the customer, the loan consent form allows the broker-dealer to lend stock held in the customer's account to other customers to facilitate short sales.**

11.2.2.6 Margin Account Disclosure

FINRA Rule 2264 requires firms to provide a **margin disclosure statement** to each customer prior to or at the time of opening the account. The statement reminds customers of the risks in margin account trading, and must include the following warnings:

- You can lose more funds than you deposit in the margin account.
- The firm can force the sale of securities or other assets in your account.
- The firm can sell your securities or other assets without contacting you.
- You are not entitled to choose which securities or other assets in your account are liquidated or sold to meet a margin call.
- The firm can increase its "house" maintenance margin requirements at any time and is not required to provide you advance written notice.
- You are not entitled to an extension of time on a margin call.

This notice is required annually.

11.2.3 Options Accounts

This section will focus on the options account opening process, while the options marketplace and strategies were discussed in an earlier chapter.

FINRA mandates that member firms exercise diligence and approve customer accounts for options trading, prior to any options transaction. The broker-dealer must provide an **options disclosure document** at or before the time a **registered options principal (ROP)** approves a customer's account for trading options. This document details the risk involved in options trading and is prepared by the **Options Clearing Corporation (OCC)**.

Note that there are different options approval levels that range from less-risky positions, such as covered call writing, to higher-risk positions, such as naked call writing. The level of options approval is determined by the customer's financial profile and needs.

Customers must sign the **options agreement** within 15 days of account approval, thereby agreeing to position limits, which is the total number of contracts they can have on each side of the market for a given security. By signing the agreement, customers also verify that they have read the options disclosure document and understand the inherent risks in options trading. If a customer fails to do so within 15 days, that customer is limited to liquidating any open options positions. Put another way, a customer may not open any new positions or exercise any options.

11.2.3.1 Summary of Options Account Procedures

The chart below summarizes the options account opening process:

Initial options trading inquiry	Customer indicates to her rep that she would like to trade options.
Step 1	The rep sends the customer the options risk disclosure document.
Step 2	The customer's account information is reviewed by a principal to determine the suitability to trade options. The principal approves (or disapproves) the account in writing.
Step 3	The customer can begin trading options upon account approval.
Step 4	The customer must sign and return the options agreement within 15 days of account approval.
This sequence of documentation is unusual in that the customer can begin trading options once her account is approved but *before* she returns the signed options agreement (for 15 days).	

> ***Knopman Note:* The sequence described in this chart is important to know for the exam.**

Pop Quiz 3 *(Chapter 11)*

Check all the statements that are TRUE about opening options accounts.

______ The rep must provide an options disclosure document before discussing options with a client or prospect.

______ Any principal of the firm can approve a client for options trading.

______ Firms can deny options accounts to customers because they lack investment knowledge, experience, or assets.

______ Firms can approve a customer for covered call writing but not for selling naked options.

______ The customer cannot participate in options trading until signing the option account agreement.

______ Unless the option account agreement has been signed by the 15th day after account approval, the customer cannot initiate any new options positions.

11.2.4 Discretionary Accounts

A **discretionary account** exists when a customer gives trading authorization to a registered representative. With this authority, the representative can determine:

- Whether to buy or sell (action)
- What security to buy or sell (asset), and
- The number of shares involved in the transaction (amount)

Note that time and price are not discretionary items.

> ***Knopman Note:*** **A trade is considered discretionary when the rep decides any one of the three items listed above. For example, if the customer requests exposure to the tech sector and the rep chooses the specific stock to purchase, this would be a discretionary trade.**
>
> **It might be helpful to remember that a discretionary trade is one in which the rep is deciding any of the "Three A's":**
>
> - **Asset**
> - **Amount**
> - **Action**
>
> **If, however, the client instructed his rep to buy 100 shares of Apple "when the time and price are right," the rep would not be choosing the asset, amount, or action. Therefore, the trade would be non-discretionary. These are referred to as not held orders, as the registered rep is not held to a time or price.**

FINRA Rule 2510 requires that customers grant discretionary authority in writing via a power of attorney (POA). Additionally, a principal of the firm must approve the account for discretionary trading prior to the first trade and must approve each discretionary trade promptly after execution. The written authorization and approvals must be kept as part of the permanent account file.

In order to authorize the power of attorney, the customer must submit a signed copy to the broker-dealer. Even if the firm already has the customer's signature on file, it would be prohibited to forge it onto a POA as a matter of convenience even if the customer has granted approval to do so. This is referred to as a **signature of convenience** and applies to any document that is required to be signed by the customer.

> ***Knopman Note:*** **No transactions of a discretionary nature can be executed unless a power of attorney has been received by the firm. This includes situations where the registered rep believes that the transaction is in the best interest of the client.**

All powers of attorney end when the person that granted the authorization dies.

11.2.4.1 Churning

Because a registered rep does not need explicit client authorization to place trades in a discretionary account, a registered representative might be tempted to increase the amount of trades in the account simply to generate additional fees. This prohibited practice is known as **churning**. There is not an exact number of trades in an account that may constitute churning. Rather, churning is best defined as excessive trading that is inconsistent with a customer's investment objectives.

11.2.5 Fee-Based Accounts

Broker-dealers may offer clients **fee-based accounts**, whereby the customer pays a fixed fee or a percentage of assets under management rather than paying a commission per transaction. Fee-based accounts are appropriate only for sophisticated clients who enter a significant number of orders. For customers who trade infrequently, fee-based accounts are not suitable.

> ***Knopman Note:* A fee-based account would not be appropriate for a buy and hold investor.**

Progress Check

1. George is a registered rep who is cold-calling strangers to find new clients. Which fact does he not need to disclose?

   A. The name of his firm
   B. An address where he can be contacted
   C. The fact that he is securities licensed
   D. The purpose of the call

2. James is an unregistered employee of BD XYZ. His firm puts him to work cold-calling prospects. James tells prospects his firm has published a research report on an energy company, and he offers to send a free copy. When prospects ask to know more information he reads excerpts from the report. Has he committed a violation?

   A. Yes, he must name the company on request.
   B. Yes, he must turn the call over to a registered person when prospects request more information.
   C. Yes, he can't cold-call until he is registered.
   D. No, he has met all cold-calling requirements.

3. Who is required to sign a new account form?

   A. Customer and registered rep
   B. Customer and designated principal who approves the account
   C. Only the customer
   D. Only the designated principal who approves the account

4. Is it permissible to buy $30,000 of stock in a cash account without having $30,000 of cash available to pay for the trade?

   A. No, this is an example of free-riding.
   B. Yes, but only if the client has at least $15,000 of cash available at the time the order is placed
   C. Yes, but only if the client can pay the full $30,000 within four business days after the trade
   D. Yes, provided the client has at least $60,000 worth of eligible securities already in the account

5. What types of trades are permitted in a cash account that has been frozen because of freeriding activity?

   A. None
   B. Sell orders only
   C. Only orders with prior principal approval
   D. Only orders with sufficient cash in the account to cover the full purchase

6. If Hal owns $90,000 of stock in his margin account, what is the FINRA maintenance requirement?

   A. $22,500
   B. $27,000
   C. $45,000
   D. $90,000

7. Which of the following securities can be purchased on margin?

   A. Closed-end funds
   B. Mutual funds
   C. IPOs
   D. Annuities

Progress Check (Continued)

8. Which of these trades is considered non-discretionary?

   A. The rep determines the number of shares to sell.

   B. The rep picks the stocks that a client should buy.

   C. The rep advocates that the client reinvest mutual fund dividends into new shares.

   D. The rep decides to close out an option trade just before it expires.

Progress Check—Solutions

1. (**C**) In cold calls to non-clients, a rep is required to disclose his name and the name of the firm, a phone number and address where he can be reached, and the reason for the call.
2. (**B**) Unregistered employees are permitted to cold-call, but they can only take a call so far. If the prospect requests more information, at that point, the call must be turned over to a registered person.
3. (**D**) The only required signature is that of the designated principal who approves the new account. By signing, the principal verifies that the new account form is complete and that the account complies with securities regulations and the firm's policies.
4. (**C**) In cash accounts, customers must pay in cash, in full, for all securities by the fourth business day after the trade date. In this case, $30,000 must be paid in cash within four days, unless the firm requests and receives an extension of time. Without an extension, the trade will be sold out, and the account will be frozen.
5. (**D**) If an account is frozen for free-riding, the firm is permitted to place sell orders and any buy orders for which the account has sufficient cash to cover the purchase, at the time the order is placed.
6. (**A**) In a long margin account, the FINRA minimum maintenance requirement is 25% of the long market value—in this case $22,500 ($90,000 × 25%). In a short margin account, the requirement is 30%.
7. (**A**) In general, shares that are exchange-traded (ETFs, closed-end funds, REITs) can be purchased on margin. Mutual fund shares are not exchange-traded and cannot be purchased on margin. Although IPOs can be exchange-traded, they cannot be purchased on margin for the first 30 days after the effective date.
8. (**C**) A discretionary trade occurs when the rep decides any of the three As: asset, amount, or action, without specific instructions from clients. Advocating a particular investment or strategy does not, in itself, constitute action, provided the client makes the final decision.

11.3 Titling Customer Accounts

In addition to opening an individual account, individuals may want to open an account with another person or group of people, or they might want to open an account for a child or another third party. Different account titles have different legal consequences and inheritance consequences upon death.

11.3.1 Individual Accounts

An **individual account** has a single owner who has authority over the investments. At the owner's death, open orders are immediately cancelled, the account is frozen and marked deceased, and the proceeds are distributed to the beneficiary designated by the owner. If no beneficiary is designated, proceeds are distributed according to the owner's will or trust.

> ***Knopman Note:*** **The owner of an account has trading authority, which is the ability to trade the assets of the account. A non-account-holder can only trade on the account owner's behalf if this right is granted in writing by the account owner.**

11.3.2 Joint Accounts

Joint accounts have two or more owners. In fact, there can be an unlimited number of account owners. To set up a joint account, the owners must complete the standard new account form as well as a **joint account agreement**, which must be signed by all account owners. This agreement will stipulate which parties can trade in the account, though checks must be made payable to all account owners. The two main types of joint accounts are discussed below.

> ***Knopman Note:*** **Two unrelated adults can open a joint account, though a parent and minor child cannot.**

> ***Knopman Note:*** **In a joint account, any party can give trading instructions, but checks must be made payable to all parties to the account.**

11.3.2.1 Tenants in Common (TIC) Account

In a **tenants in common (TIC) account**, or **joint tenants in common (JTIC) account**, each account holder owns a specified percentage of the assets based on their contributions to the account. At each owner's death, their portion of the account is liquidated and distributed to their designated beneficiary. That person's share *does not* pass to the surviving tenants.

> ***Knopman Note:*** **Two siblings who want to open a joint account together, but leave all assets to their respective spouses, should open a joint tenants in common account.**

11.3.2.2 Joint Tenants with Rights of Survivorship (JTWROS) Account

In a **joint tenants with rights of survivorship (JTWROS) account**, each owner has an undivided interest in the entire account, meaning all owners own 100% of the assets. If one owner dies, that owner's interest in the account passes to the surviving owners. This type of account is common for a married couple or for a parent and an adult child.

Knopman Note: **The table below summarizes the flow of assets upon the death of a customer:**

Account Type	Upon Death of an Account Owner…
Individual	*Assets belong to* designated account beneficiary (if any) or are distributed in accordance with individual's estate
Joints Tenants in Common (JTIC)	*Assets belong to* designated beneficiary of deceased (if any) or are distributed in accordance with individual's estate
Joint Tenants with Rights of Survivorship (JTWROS)	*Assets belong to* surviving account owner

Knopman Note: **A JTWROS account avoids *probate*, which is the legal process where a court reviews a will to ensure it is authentic. Instead, the assets are transferred directly to the beneficiary, making it easier for them to receive the assets. If an individual account has a transfer on death (TOD) designation, it would also avoid probate. Note that JTIC account assets are subject to probate and are distributed as part of the deceased's estate.**

11.3.3 Fiduciary Accounts

There are many situations in which one person can open an account on behalf of another person whose account she will be responsible for managing. Account openers are said to have a **fiduciary responsibility**—meaning that the beneficiaries' interests must be placed ahead of their own.

11.3.3.1 Minor Accounts

Adults can establish securities accounts for minors using the **Uniform Gifts to Minors Act (UGMA)** or the **Uniform Transfers to Minors Act (UTMA)**. Some states have adopted UGMA and others have adopted UTMA. What is important to know are the characteristics these account types share, as opposed to their differences.

Both of these acts require an adult **custodian** to assume a fiduciary responsibility in managing the account for the minor's best interest. The securities are registered in the name of the custodian. Once the minor reaches the age of majority, the assets are transferred into the name of the new adult. The age of majority is 18 for an UGMA account and between 18 and 25 for an UTMA account, depending on the state.

> ***Knopman Note:*** **A minor can only be a party to an UGMA or UTMA account. A minor cannot open an individual account or be part of a joint account. Therefore, if a 17-year-old asks a registered representative to open an account, the registered representative should refuse the request. Additionally, because the custodian manages the account, a minor cannot trade in the account, even if the minor receives the custodian's permission.**

A minor account must include the custodian's name, as well as the name and Social Security number of the minor. These custodial accounts can have only one custodian and one minor beneficiary. The custodian, or any other adult, can be the giver of the assets, and it need not be a parent or guardian. Any gift to the account is irrevocable, meaning the donor cannot take back the gift nor can the minor return the gift.

> ***Knopman Note:*** **Because the minor owns the account, the minor's Social Security number, not the custodian's, will be on the account.**

> ***Knopman Note:*** **The assets in an UGMA/UTMA account cannot be transferred from one child's account to another, and any gifts that are made to a minor's account are irrevocable, which means they cannot be taken back.**

The funds in the account must be used for the benefit of the child, and the custodian may be reimbursed for any reasonable expenses incurred in managing the account unless the custodian is also the donor. If the named custodian should die, the courts will name a successor custodian, typically the minor's guardian or an adult family member.

> ***Knopman Note:*** **An individual that donates assets to a minor account can also be the custodian of the account. For example, a parent can both gift assets into a minor's account and be the custodian managing the account.**

Low-risk investments are most appropriate for custodial accounts. Risky strategies such as uncovered options positions and penny stocks are considered inappropriate, though they are not outright prohibited. Margin trading is not permitted in UGMA or UTMA accounts.

The minor is liable for any taxes generated from capital gains and dividend and income distributions, although it is the custodian's responsibility to ensure that taxes are paid.

11.3.3.2 Trust Account

A **trust account** is a legal entity created by a **trustor** (also known as a **grantor** or **creator**) and controlled by a **trustee** for the benefit of another person, or persons—a trust can be for the benefit of multiple individuals or entities. The trustee and beneficiary may even be the same person. The trustee acts under powers and limits set forth in a **trust agreement**. This individual has trading discretion and acts as a fiduciary on behalf of the trust beneficiary or beneficiaries. Clients who wish to set up trust accounts must provide the broker-dealer a copy of the trust agreement, which is usually written by an attorney.

> ***Knopman Note:*** **The trustee has a fiduciary responsibility to manage the trust for the benefit of the beneficiary.**

A trust may be revocable or irrevocable. A **revocable trust** may be altered or cancelled as the trustor pleases, and the trustee and beneficiary may be the same person. An **irrevocable trust** cannot be changed or terminated without the agreement of the trust beneficiary.

> ***Knopman Note:*** **One benefit of a trust is that it allows the creator of the trust to limit or restrict the use of the assets. For example, a grandparent can set up a trust for a minor that allows the assets to be used for educational expenses only.**

> ***Knopman Note:*** **When an investor inherits securities from someone who is deceased, the investor's cost basis is adjusted to the value of the security at the time of death. For example, if John buys XYZ stock at $10 and dies when XYZ is trading at $30, the cost basis of the investor who inherits the shares is $30.**

11.4 Business Accounts

Just like natural persons, legal entities, such as corporations or partnerships, can open brokerage accounts.

11.4.1 Corporate Accounts

To set up a **corporate account**, a corporation must provide a **corporate resolution** of the board of directors specifying who will have trading authority for the account. Additionally, if a corporation wants to trade on margin, that must be permitted in its corporate charter.

Corporations are considered to have unlimited life, so there is no account beneficiary for corporate accounts. Corporations are treated as separate entities for income tax purposes, and are subject to corporate income tax rates.

11.4.2 Partnership Accounts

A **partnership** is established by an agreement between two or more people or entities. A **partnership agreement** binds the parties and details which of the partners can transact for the account.

Investment clubs are formed by a group of people who share investment ideas and pool their money to make common investments. They are usually formed as partnerships. However, many broker-dealers require that they open a special investment club account to clearly designate trading authority and maintain adequate oversight and supervision.

11.5 Maintenance of Customer Accounts

Once a customer has opened a brokerage account with a broker-dealer, it is the firm's responsibility to maintain the account and provide the customer with ongoing information about the account and related activities. It is prohibited for registered representatives to falsify or withhold any of this information from their clients.

11.5.1 Customer Account Statements

FINRA Rule 2340 requires that any firm that carries or holds accounts, funds, or securities for customers send quarterly **account statements** to each customer. The statement provides a "snapshot" of an account's status as of the statement's closing date. Statements must be sent to all customers who have a security position, a money balance, or any account activity since the last time the statement was sent.

Instead of quarterly statements, firms must send monthly statements to customers with active accounts. Activity is defined as purchases, sales, interest or dividends received, or any funds flowing in and out of the account. Statements allow customers to review their accounts for errors, theft, or other potential problems. If the account includes any penny stocks or options, monthly statements are required.

> ***Knopman Note:*** **Customer account statements must be sent quarterly by the firm.**

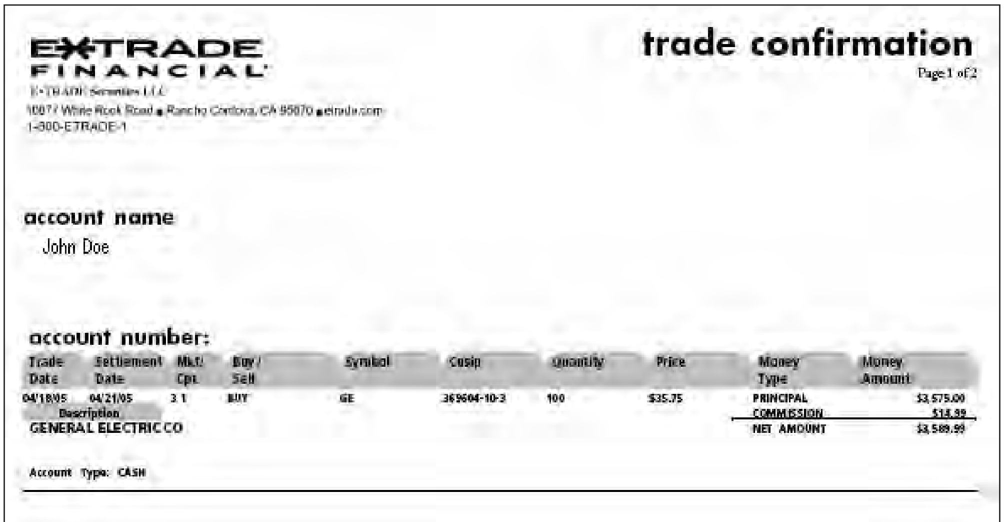
11.5.2 Customer Trade Confirmations

After customers trade securities, FINRA Rule 2232 and SEC Rule 10b-10 require firms to send written confirmations containing the trade's details. **Trade confirmations** must be delivered to customers at or before the completion of each transaction, which is defined as **settlement**.

The information recorded on an equity trade confirmation includes:

- The **date** on which the trade was executed, the name and **amount** of securities bought or sold, and the transaction **price**
- The **time** of the trade, or a statement that the time is available upon request
- The **CUSIP ID** that uniquely identifies the securities purchased or sold
- **Trade settlement date**
- Basic information about the broker-dealer, such as **broker's name**, **address**, **and capacity**, i.e., whether it acted as an agent or as a principal
  - Any control relationships between the issuer of the securities and the member firm must be disclosed.
- On a principal trade, the confirmation must clearly show the amount of any **mark-up or mark-down**.
- On agency trades, the confirmation must show the amount of **commission** charged.

For context, a sample trade confirmation appears below:



E*TRADE FINANCIAL

E*TRADE Securities LLC
10077 White Rock Road ■ Rancho Cordova, CA 95670 ■ etrade.com
1-800-ETRADE-1

trade confirmation

Page 1 of 2

account name

John Doe

account number:

Trade Date	Settlement Date	Mkt/ Cpt.	Buy / Sell	Symbol	Cusip	Quantity	Price	Money Type	Money Amount
04/18/05	04/21/05	3 1	BUY	GE	369604-10-3	100	$35.75	PRINCIPAL	$3,575.00
								COMMISSION	$14.99
								NET AMOUNT	$3,589.99

Description
GENERAL ELECTRIC CO

Account Type: CASH

MSRB Rule G-15 imposes additional requirements on municipal bond trade confirmations. Among relevant items that must be included are:

- The yield to worst, which is the lower of YTC or YTM
- Call and put features
- Amount of accrued interest
- Yield and dollar price
- The aggregate price, including the mark-up or mark-down for principal transactions and the commission earned for agency transactions. Note that principal transactions with retail customers fulfilled through same-day inventory (i.e., firm bought the bonds in the market and then resold them to retail customer on same day) must disclose mark-up or mark-down on the trade confirmation.
- Whether the bond is subject to the alternative minimum tax (AMT)

Knopman Note: **A trade confirmation must be sent on or before settlement date.**

Knopman Note: **The DTCC is a clearing corporation that works behind the scenes of a securities transaction, helping to facilitate the exchange, payment, and settlement of trades.**

11.5.3 Delivery of Annual Reports and Notices of Corporate Actions

Fundamental rights of shareholders include the right to be informed about a company's status and to vote on important matters that affect the corporations in which shareholders own equity securities. The **proxy voting** process helps investors learn about matters affecting their investments, allowing them to make their views known to company management and participate effectively at an annual or special meeting.

FINRA Rule 2251 helps to ensure that customers are provided necessary information. If securities are registered in the name of the customer, the issuer will send informational notices, such as annual statements and voting events, directly to the investor. For securities registered in street name, the broker-dealer is responsible for mailing annual reports and proxies to the beneficial owners when received.

For convenience, broker-dealers may offer electronic delivery of informational documents, though they must mail hardcopy documents if the customer prefers that. Broker-dealers are reimbursed by the issuer for reasonable costs of distributing materials.

Pop Quiz 4 *(Chapter 11)*

For each customer described below, indicate how often a securities firm must send customer account statements. The choices are **monthly**, **quarterly**, **none required**.

1. The account holds stocks, bonds, money market funds, and cash but has had no recent trading activity. ____________________
2. The account holds stocks, bonds, options, and cash and has had recent activity. ____________________
3. The account holds cash only (a money balance), and there has been no recent activity. ____________________
4. The account holds mutual funds, REITs, and penny stocks and has had recent activity. ____________________
5. The account is inactive and holds no securities positions or money balance. ____________________

11.5.4 Holding Customer Mail

Under FINRA Rule 3150, broker-dealers are permitted, but not required, to **hold customer mail**, such as trade confirmations and account statements. To do so, the customer must provide written instructions indicating the time period during which the member should hold the customer's mail.

If the requested time period is longer than three consecutive months, the customer must provide an acceptable reason for the request, such as safety or security concerns. Convenience is not an acceptable reason for asking mail to be held longer than three months.

Once the request is made, the member must then:

1. Inform the customer in writing of available alternatives to monitoring account activity, such as visiting the firm's website or opting to receive email notifications
2. Have the customer confirm receipt of such information, and
3. Verify at reasonable intervals that the customer's mail-holding instructions still apply

> ***Knopman Note:*** **A firm can hold on to customer mail for up to three months. The customer's request to do so must be made in writing.**

11.5.5 Customer Account Records

To ensure that broker-dealers are properly maintaining customer accounts and customer information FINRA Rule 4511 applies recordkeeping requirements to all accounts. Specifically, all relevant customer account records are required to be maintained for at least six years after the date the account is closed.

11.6 Protection of Customer Accounts

Because broker-dealers have access to customers' sensitive information as well as to their securities and other assets, it is essential for firms to have measures in place to protect both.

11.6.1 Regulation S-P—Information Security

A broker-dealer's financial transactions with customers involve the collection of personal information, including:

- Names
- Addresses
- Phone numbers
- Bank and credit account numbers
- Income and credit histories
- Social Security numbers

All associated persons of a broker-dealer share the responsibility of protecting customer information. The SEC's **Regulation S-P** establishes privacy standards to ensure security and confidentiality of this data. This law requires firms to provide clients with privacy notices explaining their information-sharing practices, while also allowing customers to limit some, but not all, sharing of their information.

Specifically, broker-dealers must provide clients with a privacy notice that explains what information the firm gathers about them, where this information is shared, and how the firm safeguards this information. This privacy notice must be given to a client prior to entering into an agreement to do business and annually thereafter.

> ***Knopman Note:*** **Reg S-P requires firms to provide clients with privacy notices at account opening and annually thereafter.**

The privacy notice must also explain to the customer the opportunity to opt out. Opting out means that the client can prevent their information from being shared with non-affiliated parties. However, clients cannot opt out of having their information shared when it is deemed legally required, as in an IRS or anti-money laundering investigation.

> ***Knopman Note:*** **A customer that receives a privacy notice must be given a reasonable amount of time to opt out of information sharing, typically defined as 30 days.**

11.6.2 Custody of Securities

Once an investor has purchased a security for her brokerage account, the broker-dealer must ensure the security is kept in safekeeping for as long as the investor owns the security. This process is referred to as **custody**. The basic functions of safekeeping securities include:

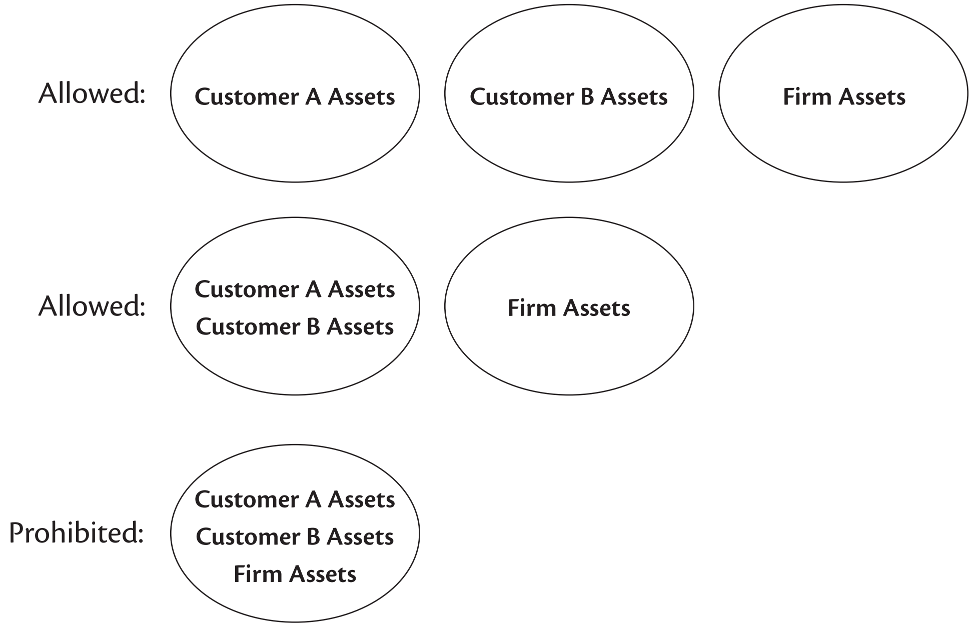
- Preventing misuse of investors' assets
- Segregating client assets from those of the firm, and
- Supplying space in the vault for physical securities to be kept

Firms that provide these services are referred to as **custodians**. SEC rules require custodians to ensure that customer funds and securities are secure and under their possession or control. For example, FINRA Rule 4514 prohibits firms or registered representatives from withdrawing funds from a customer's account without the customer's express written authorization—doing so would be a gross misuse of investor assets.

SEC rules also require that broker-dealers separate, or segregate, fully paid customer positions from the positions of the firm. Segregated securities are held apart from the assets of the broker-dealer and cannot be used to collateralize loans. Put another way, a broker-dealer is prohibited from **commingling** customer and firm securities. This important rule prevents a firm from using customer securities as collateral for its own purposes and then defaulting on a loan and losing a customer's position to the lender.

> ***Knopman Note:*** **Mixing customer and firm assets is a violation referred to as *commingling*.**

Commingling Graph



11.6.3 SIPC Coverage and Protections

The **Securities Investor Protection Corporation (SIPC)** is a nonprofit member corporation created by Congress. SIPC exists to increase investors' confidence by protecting customers of US broker-dealers against the loss of their securities due to their brokerage firm's failure. Most of SIPC's funding comes from broker-dealer assessments, which are based on a percentage of each firm's gross revenue from securities.

> ***Knopman Note:* SIPC is a not-for-profit corporation. It is *not* an agency of the US government.**

> ***Knopman Note:* SIPC coverage protects customers' cash and securities from a broker-dealer failure, not from market losses.**

SIPC ensures that customers of a failed broker-dealer receive all non-negotiable securities registered in their names, or those that are in the process of being registered. All other so-called **street name** securities are then distributed on a pro rata basis. SIPC will first attempt to locate and replace any securities lost as a result of a broker-dealer bankruptcy.

After replacing securities, SIPC covers any remaining claims up to a maximum of $500,000, including not more than $250,000 in cash. Any additional funds that SIPC recovers through legal actions are used to pay investors whose claims exceed the $500,000 limit.

***Knopman Note:* In the event of a broker-dealer insolvency, the market value used to determine the amount of an investor's claim is based on the date the bankruptcy filing is made with the court.**

***Knopman Note:* SIPC does not protect non-securities such as commodities or futures.**

11.6.3.1 Separate Customers Under SIPC

SIPC protection is available to each "separate customer" of the broker-dealer, which is determined by an account's title. Thus, a natural person could count as multiple "separate customers" for SIPC purposes and have full protection (up to $500,000) on each of their accounts.

Each of the following accounts, even if owned or controlled by the same person, is a "separate customer" in SIPC's eyes.

- An individual account
- A joint account
- An account for a trust created under state law
- An individual retirement account (IRA)
- A Roth IRA
- A minor's account

***Knopman Note:* Each separate customer is protected for up to $500,000 total, but no more than $250,000 in cash.**

***Knopman Note:* If the SIPC limit of coverage is exceeded, the customer becomes a general creditor of the broker-dealer.**

Pop Quiz 5 *(Chapter 11)*

True or false?

1. SIPC is an insurance company that insures investors against brokerage account losses.
2. SIPC replaces any securities lost as a result of a broker-dealer failure, but it does not replace lost cash.
3. The maximum amount of securities SIPC will replace is $250,000.
4. One individual investor can be considered several separate customers, for SIPC-coverage purposes.
5. Any additional funds that SIPC can recover through legal actions are used to pay investors whose claims exceed the dollar limit.

11.6.4 The Federal Deposit Insurance Corporation (FDIC)

Unlike SIPC, which protects US investors who hold brokerage accounts, the **Federal Deposit Insurance Corporation (FDIC)** insures deposits in banks and thrift institutions for at least $250,000. The FDIC is an independent agency created by Congress in 1933 to maintain financial stability and public confidence in the US financial system by:

- Insuring deposits
- Examining and supervising financial institutions for safety and soundness, and
- Managing receiverships that involve insured institutions. This usually means arranging an FDIC-insured transfer of accounts, assets, and liabilities of failed banks to healthy banks.

This coverage is backed by the full faith and credit of the United States government and is available to each separate account at FDIC-insured institutions. It's important to note that FDIC coverage is limited to bank deposit products, such as checking, savings, money market accounts, and bank-issued CDs. FDIC does not protect investments in securities (e.g., stocks, bonds, or mutual funds).

11.6.4.1 SIPC Versus FDIC

The table below compares features of FDIC and SIPC:

	FDIC	SIPC
What is covered?	Bank deposits, money market deposit accounts, and certain retirement accounts	Securities and cash held in a brokerage account at a SIPC member firm
Protection limits	$250,000 per depositor in each bank or thrift	Up to $500,000, including $250,000 in cash
What's not covered?	Investments in mutual funds (stock, bond, or money market mutual funds), whether purchased from a bank, brokerage, or dealer Annuities (underwritten by insurance companies, but sold at some banks) Stocks, bonds, Treasury securities, or other investment products, whether purchased through a bank or a broker-dealer	Losses due to market fluctuation, poor investment decisions, or lost investment opportunities Investments in commodity futures, fixed annuities, currency, hedge funds, or investment contracts (such as limited partnerships) that are not registered with the SEC Accounts of partners, directors, officers, or anyone with a significant beneficial ownership in the failed firm

11.6.5 Protection of Vulnerable Investors

FINRA rules are designed to protect all types of clients, but **vulnerable investors** have recently received increased regulatory attention. Included in this group are:

- Persons age 65 and older, and
- Any person age 18 and older who a firm or its representatives reasonably believe has a mental or physical impairment that renders the individual unable to protect their own interests

FINRA Rule 2165 includes two key steps to protect these investors from financial fraud and exploitation. First, firms are required to make reasonable efforts to obtain the name and contact information for a trusted contact person when opening a customer's account. Second, firms will be permitted to place a temporary hold on a distribution of funds or securities from the account for up to 15 business days when there is reasonable belief of financial exploitation.

***Knopman Note:* If a firm believes that there has been or will be financial exploitation of a vulnerable investor by a party able to transact in the account, the firm can institute a 15-business-day hold on distributions from the account to review the facts and circumstances.**

11.6.6 Disclosure of Financial Condition

FINRA Rule 2261 requires broker-dealers to make available to customers upon their request information about the firm's financial condition. A firm can comply with the rule by providing its most recent balance sheet, either via a paper copy or in an electronic format. Broker-dealers that are conducting business with another firm must provide the same financial disclosures to that counterparty upon its request as well. This rule aims to allow customers to more easily investigate the financial soundness of the firms in which their accounts are held, to give them a sense of assurance that their accounts are in the proper hands.

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 11)*

(**B**) In only one case can a rep call someone who is on the federal do-not-call registry: when the rep already has a personal relationship with the person. It does not necessarily mean a client relationship. It means the person called already knows the rep, in some way. If a script is used, it must be pre-approved (before first use) by a principal.

Pop Quiz 2 *(Chapter 11)*

1. Investor wants to buy 100 shares of ABC stock at $42 per share in a cash account **$4,200**
2. Investor wants to short 100 shares of ABC stock at $30 per share in a margin account **$2,000**
3. Investor wants to buy 100 shares of XYZ stock at $12 per share in a margin account **$1,200**
4. Investor wants to short 100 shares of XYZ stock at $10 per share in a margin account **$2,000**
5. Investor wants to short 1,000 shares of XYZ stock at $12 per share in a margin account **$6,000**

Explanation: For long margin accounts, any purchase under $2,000 requires initial margin of 100% of purchase price. For short margin accounts, any purchase under $2,000 requires $2,000. For both longs and shorts, any purchase between $2,000 and $4,000 requires $2,000; above $4,000, it is 50% of purchase price. In cash accounts, the minimum initial deposit is always 100% of purchase price.

Pop Quiz 3 *(Chapter 11)*

_____ The rep must provide an options disclosure document before discussing options with a client or prospect. **The disclosure must be given before or at the same time a registered options principal approves a customer account for options trading.**

_____ Any principal of the firm can approve a client for options trading. **It must be a registered options principal.**

__X__ Firms can deny options accounts to customers because they lack investment knowledge, experience, or assets.

__X__ Firms can approve a customer for covered call writing but not for selling naked options.

_____ The customer cannot participate in options trading until signing the option account agreement. **The customer can participate for 15 days.**

__X__ Unless the option account agreement has been signed by the 15th day after account approval, the customer cannot initiate any new options positions. **After 15 days, without a signed agreement, the account is limited to liquidating existing options positions.**

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 11)*

1. The account holds stocks, bonds, money market funds, and cash but has had no recent trading activity. **Quarterly**

2. The account holds stocks, bonds, options, and cash and has had recent activity. **Monthly**

3. The account holds cash only (a money balance), and there has been no recent activity. **Quarterly**

4. The account holds mutual funds, REITs, and penny stocks and has had recent activity. **Monthly**

5. The account is inactive and holds no securities positions or money balance. **None required**

Explanation: A customer account statement must be sent at least quarterly for any account with securities, a money balance, or activity. However, holding any options or penny stocks in the account triggers the need for monthly statements.

Pop Quiz 5 *(Chapter 11)*

1. False—SIPC is an insurance company that insures investors against brokerage account losses. **SIPC is a not-for-profit that replaces securities and a limited amount of cash lost as a result of a firm's failure.**

2. False—SIPC replaces any securities lost as a result of a broker-dealer failure, but it does not replace lost cash. **SIPC will replace lost cash up to $250,000 per separate customer.**

3. False—The maximum amount of securities SIPC will replace is $250,000. **The value can be much higher, potentially millions of dollars' worth. SIPC attempts to replace all lost securities. If it can't, investors can then claim reimbursement of up to $500,000, of which up to $250,000 can be for cash balances in brokerage accounts.**

4. True—One individual investor can be considered several separate customers, for SIPC-coverage purposes. **It depends on how many accounts the investor has and in what name they are registered.**

5. True—Any additional funds that SIPC can recover through legal actions are used to pay investors whose claims exceed the dollar limit.

Unit Exam

1. In which type of account may a registered representative buy or sell specific securities for a client, *without* explicit customer instructions?

   A. Account for minors
   B. Margin
   C. Discretionary
   D. All of the above

2. Andrew is opening a brokerage account at a firm where his relatives work, and he does not want them to see his name attached to the account. What can he do to make this work?

   A. Request that his account be identified by a symbol or number, not his name
   B. Request that his account be identified by an alias, not his real name
   C. Open the account using a fictional name and fictional know-your-customer data
   D. He can do nothing under FINRA rules.

3. If a customer buys stocks on margin, from whom does he borrow money to complete the margin transaction?

   A. His own brokerage firm
   B. Any brokerage firm he chooses
   C. A bank designated by the brokerage firm
   D. A consortium of banks

4. Jason opens a new brokerage account, and he immediately places two trades in it. He goes long 100 shares of stock at $36 per share, and he goes short 100 shares of stock at $18 per share. Assuming that margin requirements are set by Reg T and FINRA's initial maintenance requirement, how much cash must he deposit?

   A. $1,800 long; $900 short
   B. $2,000 long; $1,800 short
   C. $2,000 long; $2,000 short
   D. $3,600 long; $2,000 short

5. What are FINRA's minimum maintenance requirements for both long and short margin accounts, respectively?

   A. 25% of both long and short market value
   B. 30% of both long and short market value
   C. 25% of long market value; 30% of short market value
   D. 30% of long market value; 40% of short market value

6. For purposes of FINRA's minimum maintenance requirements, how often are margin accounts marked to the market?

   A. Daily
   B. At the end of each trading week
   C. At the end of the month
   D. At each brokerage firm's discretion

7. Which of the following statements is *not* accurate regarding a minor account?

   A. The minor does not place his own trades.
   B. The minor is responsible for any taxes.
   C. The minor's Social Security number will be listed on the account.
   D. Gifts to the account are revocable.

8. Ed and Susan, a married couple, own a joint brokerage account worth several million dollars. If Susan dies suddenly in a car crash, who gets the account value?

   A. Ed
   B. Ed gets half, and half goes to Susan's estate.
   C. The account will be liquidated and go into probate, where Ed will have to file a claim for his share.
   D. It depends on how the account is titled.

Unit Exam (Continued)

9. The Parks are a married couple with two minor children. They want their children to participate in the stock market, so they set up Uniform Gifts to Minors Act (UGMA) accounts for each. Who must make trading decisions for these accounts?
   A. The custodian
   B. It can be both parents.
   C. It must be a parent, but it can be either one.
   D. The children can make their own decisions.

10. A married couple wishes to set up one or more UGMA/UTMA accounts for their two children. How many accounts must be opened to plan for both children? At minimum, how many beneficiaries and custodians must be named?
    A. One account, one beneficiary, one custodian
    B. One account, two beneficiaries, one custodian
    C. Two accounts, two beneficiaries, one custodian
    D. Two accounts, two beneficiaries, two custodians

11. Who can give money to an UGMA/UTMA account?
    A. A parent
    B. A family member
    C. A family member or custodian
    D. Anyone

12. When must a broker-dealer send customers trade confirmations?
    A. On the day of the trade
    B. Within one day of the trade
    C. On or before settlement date
    D. Within five days after settlement date

13. Morris opens a new brokerage account and receives a privacy notice, stating that the brokerage firm may choose to share some of his information with a non-affiliate. May he opt out of this information sharing?
    A. Yes, in all cases
    B. Yes, unless the information is required by law or regulation
    C. Not if the firm prohibits opting out
    D. No, FINRA does not allow opting out.

14. Which entity has responsibility for maintaining all customer securities and funds secure and under continuous control?
    A. Guarantor
    B. Custodian
    C. Transfer agent
    D. Authorized designee

15. What potential loss does SIPC protect investors against?
    A. Securities or cash due to the failure of a brokerage firm
    B. Only securities, due to theft, embezzlement, or fraud
    C. Only cash, due to any type of loss
    D. The loss of principal value on securities due to a general market downturn

Unit Exam (Continued)

16. A married couple has the following accounts with a broker-dealer: one individual account in the husband's name, one individual account in the wife's name, and one joint account in both names. What is the maximum amount of cash SIPC will reimburse in the event of the brokerage firm's failure?

    A. None
    B. $250,000
    C. $500,000
    D. $750,000

Unit Exam—Solutions

1. (**C**) Registered reps can only buy or sell securities without explicit customer instructions in a discretionary account, and the client must give the rep a power of attorney (POA). Investment advisers and registered reps often use discretionary accounts to implement comprehensive investment strategies, without having to get customer approval for every trade.

2. (**A**) Customers who do not want their names to be attached to securities accounts can request that the accounts be identified by symbol or number. The customer must still provide a written statement of ownership and proof of identity. Using an alias or fictional data to open the account is not permitted.

3. (**A**) Securities brokerage firms have a significant lending business, and it is derived from margin accounts. They lend cash to customers to buy securities on margin, just as banks lend cash to customers. The interest they earn on these loans can be very profitable.

4. (**C**) Since both sales are for $4,000 or less, they are governed by FINRA's initial margin requirement, not Reg T. For any short sale up to $4,000, minimum initial margin is $2,000. For any long purchase up to $2,000, it is 100% of purchase price. For any long purchase of $2,000 to $4,000, it is $2,000.

5. (**C**) FINRA requires minimum equity equal to at least 25% of long market value and 30% of short market value.

6. (**A**) Brokerage firms must ensure that each customer's maintenance margin is sufficient at the end of each trading day. The process of calculating the equity reflected in each day's gains or losses is called marking to the market.

7. (**D**) In a minor account, such as an UGMA or UTMA, the minor is the owner of the account and therefore it is their Social Security number on the account and they are liable for any taxes. However, a custodian manages the account on behalf of the minor. Any gifts to the account are permanent and cannot be revoked or taken away.

8. (**D**) This example illustrates why joint account titles are so important. If the account is titled as joint tenants with rights of survivorship (JTWROS), Ed will get the full account value. Upon presentation of a death certificate, it becomes an individual account in his name. But if it is a tenants in common (TIC) account, Ed will only keep his specified percentage share, and Susan's share will pass to her heirs according to her beneficiary designation.

9. (**A**) Each Uniform Gifts to Minors Act (UGMA) or Uniform Transfers to Minors Act (UTMA) account must have one adult named as custodian. This can be a parent or another trusted person willing to act as fiduciary. Keep in mind there can only be one custodian for each account.

Unit Exam—Solutions (Continued)

10. (**D**) There can only be one child beneficiary and one custodian per UGMA/UTMA account. All assets must be used for the benefit of the beneficiary. For each account, one adult custodian (which may or may not be a parent) is legally obligated to act as fiduciary in the child's interest.

11. (**D**) Anyone can make gifts in the child's name to the UGMA/UTMA. All contributions or gifts immediately and irrevocably become assets to be used exclusively for the child's benefit.

12. (**C**) Trade confirmations must be sent on or before settlement date. This potentially gives the customer the opportunity to review terms of the trade and correct any errors before settlement date.

13. (**B**) Most securities firms allow customers to opt out of information sharing with non-affiliated entities, rather than rejecting customers who wish to opt out. Customers generally must read the firm's privacy notice and then actively request to opt out of information sharing.

14. (**B**) The process of safeguarding customer securities and funds and segregating customer assets from the brokerage firm's assets is called custody. It is generally the responsibility of third-party firms called custodians.

15. (**A**) SIPC protects investors against the loss of securities due to their brokerage firm's failure. SIPC will first replace any securities lost. Then, it will cover remaining claims up to $500,000 per separate customer, but not more than $250,000 in cash. SIPC does not protect against theft, embezzlement, fraud, or the loss of principal value.

16. (**D**) Each of these accounts is considered a *separate customer* for SIPC coverage purposes. All three accounts are SIPC-covered, and each account can be reimbursed for lost-cash claims, up to $250,000.

12. Tax-Advantaged Accounts and Products

One of the primary financial goals of any individual is to plan for and successfully save for retirement. Many different avenues allow investors to save for retirement, including employer-sponsored plans, individual retirement accounts, and annuities. A main advantage of these plans is that the investor's earnings accumulate on a **tax-deferred basis**, meaning there is no tax paid on the growth in the plan until the money is withdrawn. This allows for compounding growth, as the investor can reinvest 100% of the account earnings each year without having to pay any taxes.

This chapter will discuss the various types of retirement plans, including qualified and non-qualified corporate plans, traditional and Roth IRAs, as well as other tax-advantaged accounts, such as annuities, 529 plans, and ABLE accounts. It is critical to understand the characteristics of each, especially the different tax scenarios that apply.

Chapter Goals

- Know the requirements of ERISA.
- Understand the concept of tax-deferred growth.
- Compare the tax consequences of qualified and non-qualified plans.
- Distinguish between defined benefit plans and defined contribution plans.
- Explain the contribution and distribution rules of IRAs.
- Differentiate between the two phases of a variable annuity.
- Learn the suitability considerations of annuity products.
- Describe the benefits of 529 plans and ABLE accounts.

Key Terms

- **Tax-deferred**—The manner in which retirement accounts and other tax-advantaged accounts grow, meaning no taxation on the capital gains, dividends, or interest income that is generated each year until the funds are distributed from the plan
- **Qualified corporate retirement plan**—A corporate plan that meets the guidelines of ERISA and therefore allows for pre-tax contributions
- **Defined benefit plan**—A type of qualified plan, such as a pension plan, where the

amount of income received at retirement is predetermined based on the employee's age, position, and tenure with the company

- **Defined contribution plan**—A type of qualified plan, such as a 401(k), where retirement income is based on the amount of money contributed to the plan and the performance of those investments
- **Non-qualified corporate retirement plan**—A corporate plan that does not meet the guidelines of ERISA and therefore only allows for after-tax contributions
- **Individual retirement account (IRA)**—A retirement account that can be opened by an individual with earned income separate from the retirement plans offered by their company
- **Roth IRA**—A special type of retirement account available to individuals with lower income that allows for completely tax-free distributions of the growth and earnings in the account
- **Fixed annuity**—A contract between an individual and an insurance company that is used to supplement retirement savings and guarantees the owner a fixed rate of return for life
- **Variable annuity**—A contract between an individual and an insurance company that is used to supplement retirement savings and provides the owner with variable returns over their lifetime based on the market performance of the portfolio
- **Separate account**—The investment account of an insurance company where the owner of a variable annuity contract's premiums are invested in order to generate market-based returns
- **529 plan**—A tax-advantaged savings account that allows individuals to save for education-related expenses
- **ABLE account**—A tax-advantaged savings account for individuals with disabilities

12.1 Corporate Retirement Plans

One benefit provided by many employers to their employees is the opportunity to participate in a corporate-sponsored retirement plan. Retirement investing allows individuals to create a nest egg for the future and provides certain tax benefits that allow the funds to grow more quickly over time. This section will discuss the two main types of corporate plans: qualified and non-qualified.

12.1.1 Qualified Corporate Retirement Plans

In a **qualified corporate retirement plan** employers and employees make pre-tax (i.e., tax-deductible) contributions. This means that money is invested into the plan before taxes are paid on those funds. This cash is then invested into any number of eligible securities and those investments will grow **tax-deferred**. This means there is no tax each year on any investment earnings, including dividends, capital gains, or interest income. When the investor eventually reaches retirement age and makes withdrawals from the plan, all distributions are fully taxable as ordinary income. These tax benefits allow for compounding, or faster growth in the account, as they allow 100% of the yearly earnings to be reinvested to gain additional income, rather than requiring any annual taxes to be paid out.

Example

Over the course of her career, Leigh contributes $80,000 into her qualified corporate retirement plan, which she invests into various mutual funds. At the time of retirement, the value of Leigh's funds has grown to $150,000. Leigh is required to pay ordinary income taxes on the distribution of the $150,000.

Knopman Note: **Qualified plans allow for pre-tax contributions and tax-deferred growth. All distributions are taxable as ordinary income.**

Taxable distributions from *any* retirement plan are always taxed as ordinary income, *never* as capital gains.

12.1.1.1 Employee Retirement Income Security Act (ERISA)

In order for a corporate plan to be qualified and receive these tax benefits, it must meet ERISA requirements. The landmark **Employee Retirement Income Security Act (ERISA)** was passed by Congress in 1974 to strengthen the retirement security of private-sector American workers.

Knopman Note: **ERISA does *not* apply to plans for public workers or government employees; it applies to private, employer-sponsored plans only.**

Every ERISA-covered retirement plan must have at least one fiduciary who is legally required to act in the best interest of the plan participants.

Additionally, the plan must be **non-discriminatory**, meaning it must be offered to every full-time employee who is at least 21 years old with one year of service with the employer. Part-time workers who work at least 500 hours in three consecutive years must also be eligible to participate in the plan.

Finally, the plan requires a **vesting schedule**, which specifies when participants have ownership rights to employer contributions. Once benefits are vested, they cannot be taken away because of an event, such as the company's bankruptcy or an employee's dismissal from work. For example, the schedule might say that if the employee leaves the company after two years of employment, he only gets to keep 50% of employer contributions, but if he leaves after four years, he gets to keep 100% of employer contributions.

A sample vesting schedule appears below:

Years of Service	Amount Vested
1	0%
2	50%
3	100%

ERISA requires that all of the employee's own contributions to the plan must be immediately vested, while employer contributions must be 100% vested after five years of work service.

ERISA defines and covers two broad types of qualified corporate plans, defined benefit plans and defined contribution plans.

12.1.1.2 Defined Benefit Plans

A **defined benefit plan** is 100% funded by the employer and promises to pay each participant a specified income benefit at retirement age. The benefit may be set at a dollar amount or by a formula that takes into account salary, age, and years of work service. Traditional **pension plans** are usually defined benefit plans.

> ***Knopman Note:*** **A pension plan is a defined benefit plan.**

Example

A defined benefit plan promises to pay a participant a monthly benefit that equals 1% of that person's average monthly salary in the last three years of employment, multiplied by years of total service. A participant who has worked 30 years might receive a monthly retirement income check equal to 30% of average salary.

Defined benefit plans do not have individual employee accounts. Rather, all company contributions are deposited into a trust and professionally managed to produce investment returns that are designed to meet the required retirement benefits. The employer bears 100% of investment responsibility and must make additional contributions if investment performance is poor or fails to attain the plan's goals. The employer must hire a professional known as an **actuary** to calculate the amount of annual contributions required to fund promised future benefits for all employed and retired participants. If the investments do not perform as expected, there is a risk of an **underfunded pension plan**, meaning there are not sufficient assets to pay retirement obligations.

The complexity and administrative costs of defined benefit plans have caused many employers to discontinue offering them, and to offer defined contribution plans instead.

12.1.1.3 Defined Contribution Plans

Recently, the trend in retirement plans has been toward **defined contribution plans**. These allow both employers and employees to make contributions to accounts. Unlike with defined benefit plans, no minimum benefit is promised. Instead, the participant's retirement income is based on the amount contributed to the plan and the performance of the chosen investments. Once participants reach retirement age, they take distributions from the plan.

> ***Knopman Note:*** **Because defined contribution plans meet ERISA guidelines, they are all qualified plans, meaning they enjoy tax-deductible contributions and tax-deferred growth, and all distributions are taxed as ordinary income.**

There are a number of different types of retirement plans.

401(k) Plans

401(k) plans have become the most popular and prevalent type of employer-sponsored retirement plan in the US. They are a type of defined contribution plan that allows each eligible employee the option of deferring a portion of her salary into the plan instead of receiving current pay in cash.

Employers have the option of matching all or part of each employee's deferrals in addition to, or instead of, making profit-sharing contributions to the plan. 401(k) participation and contribution rates are much higher in plans with generous employer matching. Participants in 401(k) plans direct their own investment choices.

Example

ABC Company agrees to match 50% of each worker's elective deferral up to 5% of salary. Jim, an employee, earns $100,000 and defers 10% of his pay—$10,000 per year. The company matches 50% of the first $5,000 of his elective deferral, for a matching contribution of $2,500. Each year, Jim's 401(k) grows by total contributions of $12,500, plus investment earnings.

Roth 401(k) Accounts

Since 2006, 401(k) plans have been allowed to add a Roth account feature. Technically, a **Roth 401(k)** is an optional Roth account, which may be offered by the employer, to which each participant may choose to contribute in addition to their regular 401(k) contributions. The Roth account works like a Roth IRA inside the plan. Only employee contributions go in the Roth account; employer match contributions are made to the regular 401(k) account.

All employee deferrals to the Roth account are made post-tax. Roth distributions will be received by the participant tax-free if they are taken at least five years after the first Roth deferral, and the participant is at least age 59 ½ when the first distribution is made. Roth IRAs will be reviewed in detail in a later section.

Example

Roy defers $2,000 into his regular 401(k) account and another $1,000 into his Roth 401(k) account. His employer matches 100% of his contributions. All $3,000 of employer contributions will go into the regular 401(k) account.

Profit-Sharing Plans

Profit-sharing plans are a type of defined contribution plan that gives employers the flexibility to vary the level of annual contributions each year based on the company's profits. The same percentage of compensation generally must be contributed for all eligible employees. Typically, these plans are combined with 401(k)s, allowing for both an employee deferral contribution as well as a company contribution based on profits.

Keogh Plans

Generally established as defined contribution plans, **Keogh plans**, also referred to as **HR-10 plans**, are qualified plans that allow self-employed individuals and owners of unincorporated businesses to contribute for retirement on behalf of themselves and their employees. Because of certain legislative changes, new Keogh plans are seldom set up, though many are still in existence.

Knopman Note: **For exam purposes, a Keogh is available for self-employed persons only.**

SEP-IRA

A **Simplified Employee Pension (SEP-IRA)** is a type of employer-sponsored retirement plan that is typically offered by small businesses because it is inexpensive to set up and maintain. Contributions are made in the name of each participant directly into his individual retirement account, or IRA (discussed shortly). SEP-IRAs are at the option of the employer, never required. However, the same percentage contribution must be made for all eligible employees.

> ***Knopman Note:* Only the employer, not the employee, can contribute to a SEP-IRA.**

Simple Plans

Savings Incentive Match Plan for Employees (SIMPLE IRA) is another IRA plan available to small businesses, usually with no more than 100 eligible employees. In these plans, employer contributions are required, and employees also have the option of making their own salary-reduction contributions.

> ***Knopman Note:* A SIMPLE IRA is a retirement plan for companies with 100 employees or less.**

Pop Quiz 1 *(Chapter 12)*

Check which feature belongs to defined benefit plans, defined contribution plans, or both.

Feature	Defined Benefit Plan	Defined Contribution Plan
Can include employee contributions		
Employees bear all investment risk		
Is 100% funded by the employer		
Benefits can increase with stock market performance		
Benefits can increase with each year of work service		
Plan earnings accumulate tax-deferred until distributed		
Contributions are determined by actuarial calculations		
Employers can make optional profit-sharing contributions into workers' accounts		
Covered by ERISA		

Answers to chapter 12 pop quizzes begin on page 392

12.1.1.4 Other Types of Qualified Retirement Plans

Because ERISA plans are only available to private-sector employees, those who work for nonprofits or in the public sector are not eligible to participate. However, in lieu of the ERISA plans discussed, they are eligible to participate in similar types of qualified plans, which are discussed below.

403(b) Plans

403(b) plans are ERISA plans sponsored by nonprofit organizations and educational institutions. Like 401(k)s, they allow participants to make elective deferrals. They are also called **tax-sheltered annuities (TSAs)** and may be created for the benefit of employees of public schools, employees of 501(c)(3) tax-exempt organizations—which are charities—and employees of certain types of religious institutions.

457(b) Plans

457(b) plans are participant-directed, ERISA, deferred compensation plans sponsored by state or local government entities, as well as tax-exempt 501(c) organizations. In virtually all respects, they work the same as 401(k) and 403(b) plans, with the same tax treatment and contribution limits.

12.1.2 Non-Qualified Corporate Plans

Non-qualified corporate plans offer employers the opportunity to avoid the strict requirements of qualified plans. A non-qualified plan's main advantages include:

- Flexibility to choose which employees participate
- Flexibility to structure the plan so that it offers greater reward to the most valuable executives
- Avoidance of nondiscrimination tests (because they are not ERISA-covered)
- No limits on the amount of income that can be contributed

Unlike qualified retirement plans, non-qualified plans do not create an immediate tax deduction for the company, meaning they are **non-deductible** or **after-tax**. Instead, the company sets money aside for the future use of key employees. As long as employees have no current ownership or control of assets, they do not pay current income tax. Typically, tax is owed by the employee and companies take tax deductions when plan benefits are distributed.

Example

Robin is the CEO of XYZ Company. As a benefit to her, the company provides her a non-qualified corporate plan and funds it by contributing a total of $500,000. When Robin reaches retirement, the account value has grown to $700,000. Because the company's contributions are after-tax, Robin is only required to pay ordinary income taxes on the growth of $200,000.

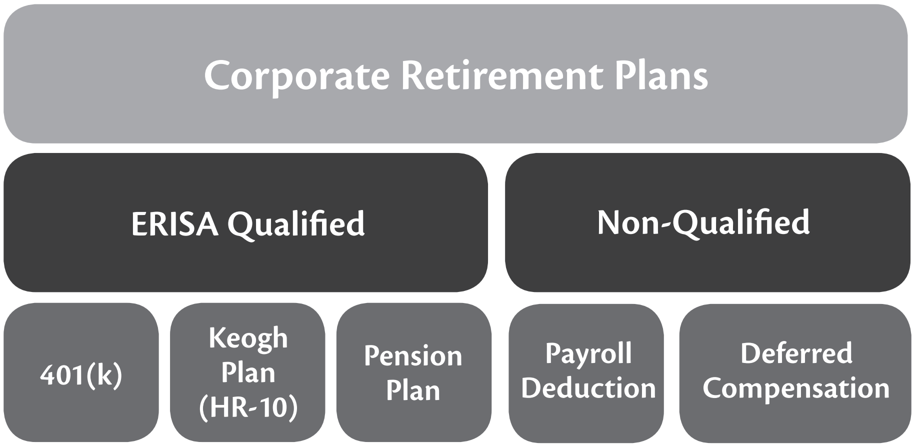
> ***Knopman Note:* In a non-qualified plan, after-tax or non-deductible contributions are made. The earnings in the plan grow tax-deferred, and when distributions are taken, only the growth is taxed as ordinary income.**

One major risk of a non-qualified plan is the potential loss of benefits if the company changes its mind about paying them or is acquired by another company that does not wish to pay them. Additionally, the assets in the plan are not protected if the company goes bankrupt, which means there is a risk of default, as the assets can be claimed by creditors.

> ***Knopman Note:*** **Non-qualified corporate plans carry credit risk if the employer is insolvent.**

Payroll deduction plans and **deferred compensation plans** are examples of non-qualified corporate plans. Their characteristics are not important for the exam, other than knowing that contributions are after-tax (non-deductible).

The table below summarizes the various types of corporate retirement plans:



12.2 Individual Retirement Accounts

Individual retirement accounts (IRAs) are the largest component of the US retirement market. IRAs were created to extend retirement plan coverage to individuals not covered by a workplace plan and to allow those that are covered to receive additional retirement benefits. IRAs allow individuals with earned income to open their own personal retirement accounts, separate from their employer. These accounts are typically opened by the individual with a bank or broker-dealer.

> ***Knopman Note:*** **An individual can contribute to both a corporate plan and an IRA.**

This section will describe both traditional and Roth IRAs.

12.2.1 Traditional IRAs

Traditional IRAs are the most popular type of IRA. Persons who work and earn compensation, along with their spouses, can set up a traditional IRA and make annual contributions.

There is no minimum age, so even a child with compensation is allowed to contribute to a traditional IRA. The maximum contribution as of 2020 is the lesser of $6,000 or 100% of the individual's annual earned income, which includes wages, salary, and commissions. Described differently, an individual can contribute up to $6,000 of earned income to an IRA. In addition, individuals age 50 or over may add an annual **catch-up contribution** of

$1,000, bringing the total to $7,000. If the limit is exceeded, a 6% penalty is assessed on the excess amount.

Example

Harry is a college student who has a part-time job. He earns $4,000 in a year. He can contribute up to $4,000 to his IRA in that year—100% of his compensation. If Harry earned more than $6,000 in a year, the most he could contribute is $6,000.

> ***Knopman Note:*** **Only earned income can be contributed to an IRA. Investment income, such as capital gains, dividends, interest, and pension income, cannot be contributed. If an individual's sole income is investment income, that person cannot contribute to an IRA.**

Traditional IRAs are personal accounts, always held in one individual's name, never jointly. However, if a working spouse has a traditional IRA, that person can make a contribution in a separate traditional IRA on behalf of a non-working spouse with no compensation. This separate IRA is referred to as a **spousal IRA**.

Example

John and Helen, a married couple, have total compensation of $80,000, all earned by John. John is 52 and Helen is 48. John can contribute $7,000 (regular + catch-up) to his traditional IRA, and he can contribute $6,000 to Helen's plan.

All IRA contributions must be made by the due date of the individual's next federal income tax return, which is usually April 15.

Example

An individual can contribute for 2018 until April 15, 2019.

12.2.1.1 Account and Investment Requirements

Investors typically make cash contributions to their IRAs and from there have broad discretion to invest in many types of assets, including stocks, bonds, mutual funds, and ETFs.

Several types of investments are prohibited in IRAs. They include:

- Fixed life insurance
- Antiques and collectibles, other than certain US-issued gold and silver coins
- Option positions, other than covered call-writing programs on listed options, and
- Real estate

12.2.1.2 Traditional IRA Contributions

Traditional IRA contributions can be **pre-tax** or **post-tax**. The three potential scenarios are below.

1. An individual can have a tax-deductible (pre-tax) IRA if they are not eligible to participate in a corporate plan. For example, the individual's employer does not offer them.

2. An individual can have a tax-deductible (pre-tax) IRA if they are eligible for a corporate plan, but make below a certain amount of income (the exact numbers are not important for the exam).
3. An individual can have a non-deductible (after-tax) IRA if they are eligible for a corporate plan and make over a certain amount of income (the exact numbers are not important for the exam).

If an individual makes pre-tax contributions to their IRA, it grows tax-deferred, and all distributions are fully taxed ordinary income (scenarios 1 and 2).

If an individual makes after-tax contributions to their IRA, it grows tax-deferred, and only the earnings, i.e., the growth, in the plan are taxable as ordinary income (scenario 3).

Example

Jordan works for a technology start-up making $200,000 per year. Because Jordan's employer does not offer him a corporate plan, Jordan can contribute pre-tax dollars to his IRA. However, if Jordan's employer introduces a corporate plan to its employees, Jordan will now only be allowed to make after-tax contributions to his IRA (because he makes over the income threshold).

Knopman Note: **From a tax perspective, tax-deductible, traditional IRAs work like qualified plans, and non-deductible traditional IRAs work like non-qualified plans.**

12.2.1.3 Distributions from a Traditional IRA

Withdrawals from traditional IRAs may begin without penalty at age 59 ½.

If a withdrawal is made by a traditional IRA owner prior to age 59 ½, a 10% penalty is due unless an exception applies.

Example

Frank is downsized by his employer and needs to tap his traditional IRA for cash at age 55. He withdraws $20,000, all of which were tax-deductible contributions. He will add $20,000 to his taxable income for the year of withdrawal and pay a $2,000 (10%) penalty.

Exceptions to the 10% penalty for early withdrawals include:

- Disability of the account owner
- Payment of education expenses for the account owner, her spouse, children, and grandchildren
- First-time homebuyers (limited to $10,000)
- Medical expenses
- Death of the account owner

> ***Knopman Note:* Individuals can move their IRA investments from one plan provider to another (e.g., Fidelity to Wells Fargo). This is referred to as a *rollover* and must be completed within 60 days to avoid potential tax liabilities and early withdrawal penalties.**

12.2.1.4 Required Minimum Distributions (RMDs)

Owners of traditional IRAs are required to begin taking **required minimum distributions (RMDs)** by April 1 of the year following their turning 72. Note that this date was increased from 70.5 on January 1, 2020 by the Secure Act. This date of the first required distribution is referred to as the **required beginning date (RBD)**. After this date, RMDs must be made annually by the end of each subsequent calendar year. RMDs must continue each year for as long as the owner is alive or until all funds have been depleted. IRA owners may take a larger distribution than required by the RMD calculation. The IRS requires these distributions so that it can generate tax revenue on funds that may have previously been sheltered from taxation.

The RMD depends on the account value and the owner's life expectancy, as published in IRS tables.

Failure to take an RMD subjects the account owner or beneficiary to pay 50% excise tax on the under-distributed amount.

Example

Leonard forgot to take an IRA distribution to meet his RMD requirement at age 74. The RMD for the year was $10,000. He must pay tax of $5,000 on the shortfall.

12.2.2 Roth IRAs

Roth IRAs are like traditional IRAs in several ways:

- The dollar limits on annual contributions are the same—$6,000 plus a $1,000 catch-up for those age 50 and over. The contribution is limited to 100% of earned income.
- Owners have discretion to invest assets in a variety of investment choices, and the prohibited transactions are the same as in traditional IRAs.
- Earnings accumulate on a tax-deferred basis—i.e., without current tax consequence.

Roth IRAs have these significant differences from traditional IRAs:

- Roth IRA contributions are available only to taxpayers who have an income below a certain limit. Once a person's income exceeds the limit she can no longer contribute to the plan.

- Roth IRA contributions are always made with after-tax dollars (non-deductible).
- Distributions from Roth IRAs are tax-free.
- RMDs are never required from Roth IRAs during the account owner's lifetime.

***Knopman Note:* If an individual has multiple IRAs (traditional and Roth), the contribution limits apply to all IRAs in the aggregate. Contributions may be made to any account, as long as the total doesn't exceed the annual dollar limit.**

For Roth IRAs, RMDs are not required from a Roth until death of the account owner.

***Knopman Note:* Distributions from a traditional IRA must begin on the April 1 of the year following an individual turning 72. This is referred to as the *required minimum distribution (RMD)*. For Roth IRAs, the RMD is triggered by the death of the account owner.**

Pop Quiz 2 *(Chapter 12)*

True or false?

1. Individuals can contribute to a traditional IRA each year the greater of a dollar amount or 100% of earned income.
2. People over the age of 50 can make an additional catch-up contribution to a traditional or Roth IRA, above the annual dollar limit.
3. People with only passive investment income can't contribute to a traditional IRA. But they can contribute to a Roth.
4. Distributions are required from traditional IRAs at the later of retirement date or age 65.
5. Required minimum distributions (RMDs) are required from both traditional and Roth IRAs starting in the year after age 72.
6. The bigger the traditional IRA balance, the bigger the RMD will be.
7. Once they start, RMDs must continue every year until the account is exhausted.

12.2.2.1 Taxation of Roth IRAs

Distributions from a Roth IRA are completely tax-free, including the growth, if they meet two tests:

1. Distributions are made after the five-year period that began with the first tax year in which a Roth was established.
2. Distributions are made after reaching age 59 ½.

Example

Kenneth established a Roth IRA on November 14, 2012. He meets the first test by waiting until 2017 to take a distribution, since 2012 is year one, 2013 is year two, 2014 is year three, 2015 is year four, and 2016 is year five. If he takes a distribution on or after January 1, 2017 (when he is age 59 ½), it is qualifying and tax-free.

Knopman Note: **Contributions to a Roth IRA are always made with after-tax dollars. Qualified distributions from a Roth are tax-free (including on the growth). To be qualified, distributions must be made after age 59 ½, and the money must have been in the plan for at least five years.**

Knopman Note: **An individual under age 59 ½ with a valid exception (e.g., disability, education, or major medical expense) can withdraw funds from a Roth IRA that they have had for less than five years without being subject to a 10% early withdrawal penalty. However, in this situation, the individual will be taxed on the earnings. Note that if the plan has been open for five years, then the earnings will not be subject to taxes.**

The table below summarizes the tax consequences of traditional and Roth IRAs.

Plan Type	Contribution Status	Distribution Status
Traditional IRA (pre-tax)	Tax-deductible	All distributions are taxable as ordinary income.
Traditional IRA (post-tax)	Not tax-deductible	Distributions in excess of basis (i.e., contributions) are taxable as ordinary income.
Roth IRA	Not tax-deductible	All distributions are tax-free.

Pop Quiz 3 *(Chapter 12)*

Check all the features and benefits offered by a Roth IRA.

_____ The same annual dollar contribution limits as in a traditional IRA apply.

_____ Anyone can contribute, with any income and at any age.

_____ All contributions are made with after-tax dollars.

_____ The same investment choices are allowed as in traditional IRAs.

_____ Withdrawals can be totally tax-free.

_____ There are no required minimum distributions during the account owner's lifetime.

_____ Contributions aren't prohibited because the Roth IRA owner or a spouse is covered by a retirement plan at work.

Progress Check

1. In which type of retirement account can distributions be tax-free?
   A. Traditional IRA
   B. Roth IRA
   C. Defined benefit
   D. Defined contribution

2. Which one of the following types of retirement plans is covered by the protections of ERISA?
   A. 401(k)
   B. Traditional IRA
   C. Plan for government workers
   D. Roth IRA

3. Karen says this about her retirement plan at work: "I will be fully vested in two years." What does she mean?
   A. She can withdraw her own contributions tax-free in two years.
   B. She can begin contributing her own money to the plan in two years.
   C. She will become eligible to join the plan in two years.
   D. She has a right to all employer contributions in two years.

4. What type of employer contributions are required in a 401(k) plan?
   A. Matching
   B. Profit-sharing
   C. Either profit-sharing or matching
   D. None

5. Which of the following investments is *not* permitted in an IRA?
   A. REITs
   B. Money market mutual funds
   C. Options
   D. Municipal bonds

6. Which of the following types of earnings grow tax-deferred in a traditional IRA?
   A. All
   B. Those related to pre-tax contributions
   C. Those related to after-tax contributions
   D. None

7. Kevin will turn 72 on June 6, 2020. When is he required to take his first required minimum distribution (RMD) from his traditional IRA?
   A. December 31, 2020
   B. April 1, 2021
   C. December 1, 2022
   D. April 15, 2022

8. John will turn 72 on October 4, 2020. By what date is he required to take the first required minimum distribution (RMD) from his Roth IRA?
   A. April 1, 2020
   B. April 15, 2020
   C. April 15, 2021
   D. Not in his lifetime

Progress Check—Solutions

1. **(B)** Distributions can be tax-free in Roth IRAs because contributions are made with *after-tax dollars*. Rather than the tax benefit occurring on the front-end of the investment, it occurs on the back end. Contributions in Roth IRAs are always distributed tax-free, and earnings are distributed tax-free if the distributions are made after age 59 ½ and after the Roth has been open for five years.
2. **(A)** ERISA applies to private-sector, employer-sponsored plans such as 401(k)s and defined benefit plans. It does not apply to plans for government workers or individual account plans such as traditional and Roth IRAs.
3. **(D)** When plan benefits are vested, they belong to the employee. Under ERISA, an employee's own contributions are always immediately 100% vested. Corporate plans can elect to vest employer contributions on a delayed basis, but the years of delay cannot exceed ERISA guidelines.
4. **(D)** Although most employers make matching or profit-sharing contributions (or both), there is no requirement to do so.
5. **(C)** A short list of investments is not permitted in IRAs. It includes life insurance, antiques and collectibles, options, and physically owned real estate. REITs (real estate securities) are permitted, as are mutual funds. Although municipal bonds are not appropriate investments, technically, they are not prohibited either.
6. **(A)** All earnings in all types of IRAs grow tax-deferred until money is distributed. It does not matter if the contributions were pre-tax or after-tax.
7. **(B)** The first RMD is required by the April 1st following an individual's 72nd birthday.
8. **(D)** RMDs are never required from Roth IRAs during the account owner's lifetime. They can continue to accumulate tax-deferred until the account owner's death. This is a major difference between Roth IRAs and traditional IRAs, and it is a benefit of Roths compared to traditional IRAs.

12.3 Annuities

Annuities are another investment vehicle that aims to help individuals save for retirement. These products, which are offered by insurance companies, pay a stream of income that is guaranteed for the life of the contract owner, known as the **annuitant**. While life insurance is designed to protect against dying too soon, annuities are said to protect against living too long, and subsequently running out of savings.

Annuities can be deferred or immediate. **Deferred annuities** accumulate earnings until a future date when payments of income to the annuitant begin. A deferred annuity can be purchased with either a single premium or periodic payments. **Immediate annuities** begin payments shortly after the contract is issued (usually within one month to one year). The payment amount varies by the age of the individual, the contribution amounts, and the earnings applied to the purchase payments. A longer deferral period allows the annuity to accumulate more earnings, which increases the amount of the potential payout.

Contracts typically have a minimum payment amount, called the **premium**. A contract may be funded with a single premium, a lump sum payment, or periodic payments that can be paid on a predetermined schedule or flexible schedule, depending on the purchaser's preference.

One of the main benefits of annuities is that, like retirement plans, the investments grow tax-deferred. This means that an investor will not pay taxes each year on the earnings or growth in the plan. The investor only pays taxes when he takes distributions.

12.3.1 The Separate Account and Annuity Regulation

An insurance company that offers both fixed and variable products manages its investments through two types of accounts. The **general account** of the insurance company invests customer premiums into conservative investment options, such as Treasury securities and high-grade corporate bonds, that deliver guaranteed returns to investors who own fixed insurance products. The general account usually has little equity exposure because of the need to continually deliver these guarantees to the owner.

> ***Knopman Note:*** **One product that an insurance company might offer investors through the general account is a guaranteed investment contract (GIC). A GIC is an insurance contract that functions like a time deposit. An investor agrees to deposit cash with the insurance company for a fixed period and in return the insurance company provides the investor with a guaranteed rate of interest as well as return of principal.**

Premiums paid for variable annuities are invested into the insurance company's **separate account**, which is the foundation of variable products. Within the separate account, investors will direct their contributions into various **subaccounts**. These accounts function like mutual funds, with various risk and reward profiles. A wide variety of subaccount investment objectives can be selected to align with an annuity owner's needs and risk tolerance.

Insurance Company Account	Return	Risk	Typical Investments
General Account	Fixed	Very little; assumed by insurance company	High-grade corporate bonds; few equities
Separate Account	Variable	Varies. Investors can select investments that range from aggressive (equities) to conservative (Treasuries or money market funds); risk assumed by account owner	Varies based on subaccount investments; do have market risk

Sometimes insurers manage separate accounts with their own investment managers. Alternatively, management responsibilities can be delegated to mutual fund subaccount managers.

From a regulatory perspective, the separate account is considered an investment company and is subject to registration under the Investment Company Act of 1940. Provisions of the Securities Act of 1933 and the Securities Exchange Act of 1934 also apply to variable annuities. The separate account manager is subject to the Investment Advisers Act of 1940.

12.3.2 Fixed Annuities

Fixed annuities offer both guaranteed principal and a guaranteed fixed rate of interest for the term of the contract, which is managed through the insurance company's general account. They accumulate a stated amount of interest and guarantee that a certain amount of income will be paid. With a fixed annuity "what you see is what you get"—there is no variability to the investment returns or payments.

Importantly, the insurance company, not the investor, bears the investment risk, meaning that no matter how the market is performing, the insurance company must always pay the investor the guaranteed fixed rate. Because investors do not bear the risk, fixed annuities are not securities, and individuals selling these products only require an insurance license, not a securities registration.

The convenience and predictability of a constant, fixed payout make a fixed annuity popular with individuals who want a known income stream to supplement their other retirement income, and are wary of the stock market's ups and downs. However, these fixed payments may not keep pace with the rate of inflation.

Because fixed annuities are not securities, they are lightly tested.

Investor Premium

Insurance Company's General Account

Fixed Return

> ***Knopman Note:*** **The greatest risk of a fixed annuity is purchasing power risk, as the fixed payments may not keep up with inflation.**

12.3.3 Variable Annuities

Unlike their fixed counterparts, **variable annuities** are designed to boost retirement savings by offering returns based on market performance. Because of this, they are resistant to inflation and provide the possibility of greater returns. Variable annuities do this by allowing the contract owner to invest in the insurance company's separate account in a broad range of professionally managed investment options, typically mutual funds. Contract owners may choose investments that offer different levels of risk and potential growth. The value of a variable annuity will vary, depending on the performance of the investment options that were chosen.

Variable annuities are similar in structure to retirement plans, albeit with some insurance-like differences.

Because investors take on the investment risk in variable annuities, variable annuities are considered securities and must be registered with the SEC and sold with a prospectus. The prospectus contains important information about the annuity contract, including fees and charges, investment options, death benefits, and annuity payout options.

Investor Premium

↓

Insurance Company's Separate Account

↓

Variable Return

> ***Knopman Note:*** **Because variable annuities are securities, they can only be sold by individuals with both insurance and securities licenses.**

The table below summarizes the two phases of a variable annuity, which will be discussed in more detail in the subsequent sections.

Accumulation Period	Annuitization Period
Annuitant *makes* payments to the insurance company. Annuitant "buys" accumulation units in a selected subaccount. Annuity has "death benefit."	Annuitant *receives* payments from the annuity.

> ***Knopman Note:*** **In a fixed annuity, the investor earns a guaranteed fixed return and any risk of negative performance of the investments is assumed by the insurance company. In a variable annuity, the investor earns a variable return based on the market performance of the investments they select within the insurance company's separate account; the investor bears the risk of any reduced payout.**

12.3.3.1 Accumulation Phase

The **accumulation phase** is the time during which an annuity owner is putting money into the contract. The purchaser can choose to invest with a lump sum purchase or on a periodic-payment basis.

The dollars invested into the contract purchase **accumulation units**. Each unit represents an interest in an underlying subaccount. The value of a unit fluctuates according to the value of securities in the portfolio, just like a share in a mutual fund. Its value is recalculated daily.

> ***Knopman Note:*** **The number of accumulation units will vary (the number will increase as the individual invests more money) as will the value of each unit (the value will fluctuate with the market).**

During the accumulation phase, investors also have an insurance-like feature called a **guaranteed death benefit**. If the investor dies during this period, the investor's beneficiary receives the greater of the current value of the contract or the amount contributed (in the case that the contract's market value has decreased). The death benefit usually ends upon the annuitization of the account.

Example

Jillian funds a variable annuity by contributing $100,000. Over the next five years, the value of the annuity grows to $150,000. If Jillian passes away during the accumulation phase, her beneficiary, Joe, receives $150,000 (the greater of the current value and amount invested). However, if Jillian's investment had decreased to $80,000, Joe would receive $100,000 (the amount invested).

12.3.3.2 Annuitization Phase

The second phase of the annuity is **annuitization**, where the investor can begin taking income from the plan. As with IRAs, distributions can begin at age 59 ½ with early withdrawals subject to a 10% penalty on the earnings.

When the contract is annuitized, the accumulation units are converted into a fixed number of **annuity units**. The value of the annuity units determines the amount of the payment the annuitant will receive each month. The payout amount under these circumstances is variable, which means it will fluctuate in value, and each payment may be worth a different amount. While the amount of the payment may change from month to month, the annuitant is guaranteed that payments will be made for life.

> ***Knopman Note:* The payouts received by an investor from her variable annuity will fluctuate each month based on the performance of her separate account.**

12.3.3.3 Payout Options

The monthly payment will also be influenced by the payout option selected by the investor before annuitization. Once a choice has been made, it cannot be changed. Insurance companies offer several payout options.

Straight Life

A **straight life** guarantees payments for life to the annuitant, regardless of how long that person lives. However, no payments are made to the beneficiary upon death. Even if the annuitant dies after receiving only a single payment, the insurance company is not obligated to make any further payments. Because of the high risk associated with this option, it has the highest monthly payout amount.

Life with Period Certain

A **life with period certain** option guarantees payments for life with a minimum period of time during which payments must be made to the annuitant or their beneficiary. If the annuitant outlives this timeframe, they still continue to collect payments until death. However, the beneficiary is only protected during the period certain. A period of 10 or 15 years is common.

Example

Howard has a life annuity with a 10-year period certain. If Howard passes away after year six, his beneficiary will continue to receive payments for the remaining four years of the period certain. If Howard instead passes away after year 17, he will receive payments during the entire period, but once he dies, no payments will be made to his beneficiary.

Joint with Last Survivor

A **joint with last survivor** option ensures that income will continue through the death of a second annuitant, regardless of who dies first. A common option for married couples, this option results in the smallest monthly benefit because it has the strongest guarantee and longest expected duration.

> ***Knopman Note:* Because a straight life plan has the most risk and shortest expected duration, it pays the highest monthly income. In contrast, because a joint with last survivor plan has the least risk and longest expected duration, it pays the lowest monthly income.**

12.3.3.4 Surrender Charges

Several charges apply to variable annuities, which can negatively impact the owner's return on investment. One important fee is **surrender charges**, which applies when money is withdrawn from the annuity within a certain period of a purchase payment. They are a type of back-end sales charge that ensures the insurance company recoups the cost of sales commissions that are paid to the registered representative when the product is sold. Surrender charges commonly apply for six to 10 years from the time of purchase. They are assessed as a percentage of the amount withdrawn and generally decline over the surrender charge period.

An example of a surrender charge schedule is below:

Policy Year	1	2	3	4	5	6	7	8	9	10+
Surrender Charge	9%	8%	7%	6%	5%	4%	3%	2%	1%	0%

In this example, the account owner is incentivized to hold the account for at least 10 years to avoid surrender charges, creating a lack of liquidity during the first 10 years.

***Knopman Note:* A surrender charge is a fee paid by an investor to the insurance company if the investor withdraws their capital prior to annuitization.**

12.3.3.5 Taxation of Variable Annuities

One of the most attractive benefits of variable annuities is tax-deferred growth. This benefit applies to annuities while in the accumulation phase. Similar to retirement plans, the dividends, interest, and capital gains earned on investments are reinvested without incurring tax.

When free of annual taxation on gains and distributions, funds within variable annuities can accumulate at a much more rapid pace than when taxed.

Once withdrawals are made from annuity contracts, tax consequences will apply.

Taxation on Withdrawals

Most annuity contributions are made with after-tax dollars. Therefore, if a withdrawal is made by an annuity owner, income taxes are due on the difference between the amount paid into the annuity (i.e., basis) and its total value.

Note that if the annuity was part of a qualified retirement plan, for example a 403(b) plan, and all contributions were made with pre-tax dollars, all distributions would be subject to ordinary income taxation. In addition, as previously mentioned, any withdrawals prior to age 59 ½ are subject to a 10% penalty.

***Knopman Note:* A 403(b) plan, also known as a tax-sheltered annuity, allows eligible individuals to make tax-deductible contributions to the plan.**

12.3.3.6 Suitability of Variable Annuities

Over the years, variable annuities have been the source of complaints ranging from abusive sales practices to unsuitable recommendations. FINRA Rule 2330 helps regulate variable annuity sales practices to ensure that customers who purchase these products are protected and that broker-dealers and registered representatives that sell these products are properly trained and consider the best interests of their customers.

The key factors influencing these recommendations are discussed below.

Variable Annuity Sale Recommendations

A sale is not to be recommended unless a representative has reason to believe the product and any subaccounts chosen are suitable for the customer and that the customer would benefit from the features of the variable annuity. The customer must have been informed of the following:

- The potential surrender period and surrender charges
- Potential tax penalty if customers take distributions before reaching age 59 ½
- Fees paid for management of the subaccounts
- Sales charges paid to the rep
- The insurance and investment components (e.g., death benefits and separate account), and
- Market risk associated with investing in the product

The various fees and expenses imposed by annuities can make them costly to own, and reinforce that they are designed for long-term investors.

> ***Knopman Note:*** **If an investor's investment objectives have changed, they can transfer from one annuity contract to another without incurring any tax liabilities via a 1035 exchange. Although the exchange is tax-free, surrender charges may still apply.**

12.4 Tax-Advantaged Savings for Education and Individuals with Disabilities

As discussed previously, **municipal fund securities** are investment pools like mutual funds, but they are instead issued by a state or local government entity. Two types of municipal fund securities—ABLE accounts and 529 plans—have a tax-advantaged structure similar to those of the accounts and products discussed so far in this chapter. As with retirement investments and annuities, no annual taxation applies to the growth in these plans, meaning any capital gains, dividends, and interest income can be fully reinvested back into the funds without taxation. Instead, they provide certain tax benefits to help those saving for education as well as with expenses for those with disabilities.

12.4.1 529 College Savings Plans

529 college savings plans enable tax-favored savings and investment for payment of qualified education expenses. These programs are established and maintained by states. All states currently offer 529 plans, which include a variety of investment options. An individual can open a plan in any state; the beneficiary does not need to go to school there. However, certain tax benefits may exist for investing in your home state. All states provide a **program disclosure document**, which includes a description of their plans.

In addition to savings plans, some states and educational institutions have established prepaid tuition plans which allow for the prepayment of future tuition at one or more designated colleges, often limited to designated public colleges within the state. In some cases, the cost of future tuition is locked in at the time of purchase. These plans are much less popular and therefore this section will focus on the characteristics of savings plans.

12.4.1.1 Establishing a Plan

Any adult may set up and contribute to a 529 plan for a designated beneficiary. The designated beneficiary, typically a minor, does not have to be a relative of the contributor, but the beneficiary must be an existing child (i.e., not an unborn child). Additionally, there is no requirement to have earned income in the year of the contribution. All plan contributions are made with post-tax dollars, and maximum contributions vary by state.

> ***Knopman Note:* Because 529 plans are offered by states, the maximum amount that can be contributed will vary from state to state.**

The account owner retains control over plan assets, including the ability to select investments. The owner retains control until the money is withdrawn and spent. Additionally, the owner has the right to change the designated beneficiary, at any time, without tax consequences, provided the new beneficiary is a family member of the old beneficiary.

Example

Ted has two children, Barbara, age 14, and Henry, age 11. He sets up a 529 savings plan and names Barbara the designated beneficiary. Over several years, Ted makes contributions and the account grows in value. However, Barbara decides not to go to college. Ted may change the beneficiary to Henry and continue making contributions for Henry's college education. Later, Ted could change the beneficiary from Henry to a grandchild, if he wanted.

12.4.1.2 Investment Options

A variety of investment objectives are available within 529 plans. Some state plans offer age-based investment options, in which the underlying investments become more conservative as the beneficiary gets closer to college age. They also offer risk-based investment options, in which the underlying investments remain in the same fund, or combination of funds, regardless of the beneficiary's age. Guaranteed or insured products are also offered to protect principal.

12.4.1.3 Distributions of 529 Plans

In most states, municipal securities firms are engaged to sell 529 plans. In that case, investors may open an account through one of those authorized firms. These plans are called **adviser-sold plans**.

Investors may also choose to deal directly with the 529 plan. These plans are called **direct-sold plans**. The investor can access the fund through a primary distributor or directly through state personnel. Fees and charges may be lower in a direct-sold plan, though investors may not have access to the advice of an investment professional like they do with adviser-sold plans.

12.4.1.4 Qualified Education Expenses

The purpose of a 529 plan is to help with payment of qualified higher education expenses. A qualified education expense is one for college, university, a vocational school, or another post-secondary institution that is eligible to participate in a federal student financial aid program. Virtually all accredited colleges and universities in the US qualify.

To be qualified, expenses must be required by the institution. Qualified expenses include tuition, books, supplies, equipment, technology fees, internet service fees, and expenses for special needs students.

Room and board is a qualified education expense only if the student is enrolled at least half-time. In this case, expenses may not exceed the allowance for room and board, as determined by the institution.

While historically, 529 plans could only be used for higher education expenses, the Tax Cuts and Jobs Act passed at the end of 2017 expanded the usage of these accounts to elementary or secondary school. Now, up to $10,000 can be distributed annually from the plan to cover the costs associated with elementary school and high school.

12.4.1.5 Federal Tax Benefits

As mentioned, 529 plans offer a tax-advantaged way to save for education. Specifically, owners contribute after-tax dollars into the plan. The investments within the plan grow tax-free, meaning the investment earnings generated each year are not taxed. Distributions used to pay for qualified education expenses are also tax-free. Note that, although distributions are tax-free at the federal level, certain state tax consequences may apply, which will be discussed shortly.

Example

Ali's 529 plan consists of $175,000 of after-tax contributions. Over time, the assets in the plan grow to be valued at $275,000. When Ali takes distributions to pay for college, the growth in the plan of $100,000 is completely tax-free.

> ***Knopman Note:*** **Roth IRAs and 529 plans have the same tax consequences. Both offer after-tax contributions, which grow tax-free, and distributions are completely tax-free as long as certain requirements are met.**

Also note that any distributions from the plan that are not used for qualified education expenses are subject to ordinary income tax as well as a 10% federal penalty.

12.4.1.6 State Tax Consequences of 529 Plans

States offer 529 plans to help individuals save for higher education. In order to incentivize state residents to open in-state plans, certain tax benefits might be offered. For example, some states allow a certain portion of the money contributed into the plan to be tax-deductible and allow for tax-free distributions at the state level.

In contrast, some states penalize their residents for opening out-of-state plans. For example, if an investor opens a plan in another state, although that investor receives federally tax-free distributions, she may be required by her state of residency to pay state taxes on the plan's growth.

Because these plans are sponsored by states, they are subject to MSRB regulation, which requires registered representatives to disclose potential out-of-state tax consequences to investors at or prior to the sale of securities involved in an out-of-state 529 plan.

***Knopman Note:* Each state has its own set of rules, but it is important to keep in mind that investors might receive certain tax advantages for opening in-state 529 plans.**

Pop Quiz 4 *(Chapter 12)*

Which statements are TRUE about the tax advantages of 529 college savings plans?

I. Contributions are made with pre-tax dollars, for federal income tax purposes.
II. Some states allow a state income tax deduction for contributions.
III. Distributions are always tax-free.
IV. A federal tax penalty can apply on some distributions.

A. I and II
B. I and III
C. II and III
D. II and IV

12.4.1.7 MSRB Reporting Requirements

MSRB Rule G-45 requires underwriters of 529 plans and ABLE programs (discussed below) to electronically submit certain information to the MSRB about the investment. Specifically, three categories of information need to be submitted semiannually:

1. Information describing the plan, such as which state is offering it, and the name of the plan and plan manager.
2. Aggregate plan information, such as total plan assets as well as contributions and distributions during the period.
3. Investment option information, such as the available investment options and their objectives, the name and allocation percentage of each underlying investment within each option, expense data, and performance data.

These reporting requirements do not apply to local government investment pools (LGIPs), which were discussed in an earlier chapter.

Pop Quiz 5 *(Chapter 12)*

Match each term with the appropriate description.

A. Separate account
B. ABLE account
C. 529 plan
D. Variable annuity

_____ An insurance company contract in which returns depend on the performance of managed investment funds

_____ A tax-advantaged savings account designed for individuals with disabilities

_____ An insurance company account in which non-guaranteed investments are held

_____ A tax-advantaged savings account designed to help individuals save for education costs

12.4.2 Coverdell Education Savings Accounts

Although not a municipal fund security, a **Coverdell** works much like a 529 plan, offering after-tax contributions, tax-free investment growth, and tax-free withdrawals when the funds are spent on qualified education expenses (college or earlier). However, the contribution is limited to $2,000 per beneficiary per year, and this account type is only available to families below a certain income level.

Additionally, Coverdell funds must be spent or transferred to a family member by the time the beneficiary turns 30, or the funds will be subject to federal income tax as well as a 10% penalty.

Knopman Note: **Although Coverdell and 529 plans have identical tax treatment, 529 plans are much more popular, as a Coverdell has a low maximum contribution limit.**

Knopman Note: **A Coverdell can be opened for any student under the age of 18, but the assets must be withdrawn by the time the student reaches the age of 30 or else taxes and a 10% penalty apply. In contrast, there is no age limit on the beneficiary of a 529 plan.**

12.4.3 ABLE Accounts

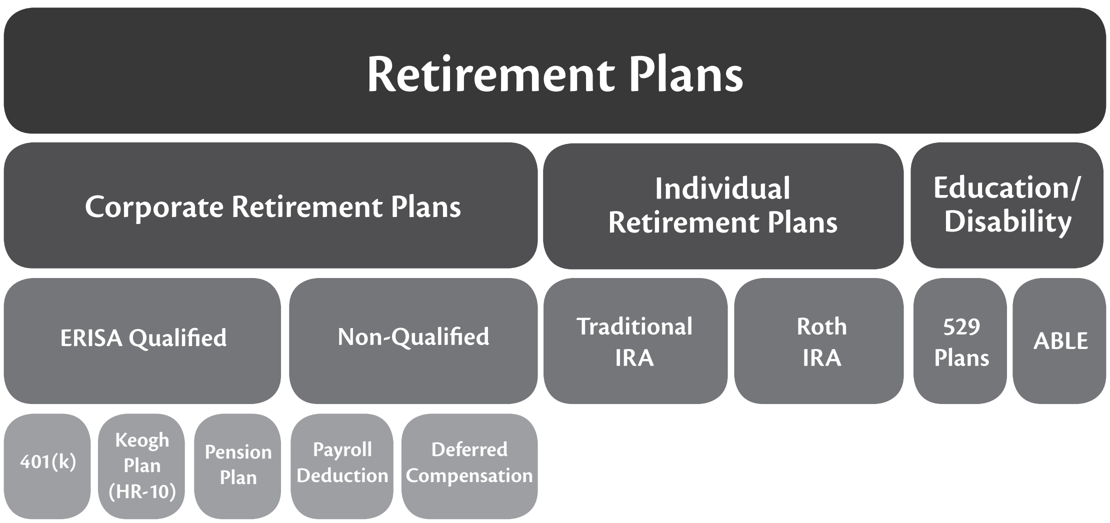
ABLE accounts were created by the ABLE ("Achieving a Better Life Experience") Act of 2014. The act helps ease the financial strain of individuals with disabilities by permitting the opening of tax-free savings accounts that can cover qualified expenses, such as education, housing, transportation, employment support and training, and health and wellness services. These savings accounts can supplement benefits provided through private insurances, social programs, and other sources.

> ***Knopman Note:*** **An individual is only eligible for an ABLE account if they have a disability prior to age 26.**

Like Section 529 plans, ABLE accounts are available in all states and share similar contribution limits, tax treatment, and reporting requirements.

> ***Knopman Note:*** **ABLE accounts have the same tax structure as 529 plans, allowing the donor to contribute after-tax dollars on behalf of an individual with disabilities. The earnings in the plan grow tax-free, and distributions for qualified disability expenses (e.g., education, housing, healthcare, and transportation) are completed tax-free at the federal level.**

The table below summarizes all retirement plan options:



Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 12)*

Feature	Defined Benefit Plan	Defined Contribution Plan
Can include employee contributions		X
Employees bear all investment risk		X
Is 100% funded by the employer	X	
Benefits can increase with stock market performance		X
Benefits can increase with each year of work service	X	
Plan earnings accumulate tax-deferred until distributed	X	X
Contributions are determined by actuarial calculations	X	
Employers can make optional profit-sharing contributions into workers' accounts		X
Covered by ERISA	X	X

Explanation: A form of defined contribution plan, 401(k) plans permit employees to make contributions (elective deferrals). Employees bear all investment risk in these plans, and money allocated to stock investments can help retirement benefits increase, if the stock market is strong. Defined benefit plans are 100% funded by the employer, and the employer bears all investment risk. In defined benefit plans, benefits are typically based on a combination of years or work service and salary. The amount in contributions employers must make is determined by actuarial calculations that determine the funding required to support all promised future benefits. Both types of plans feature tax-deferral on earnings and ERISA's protections for participants.

Pop Quiz 2 *(Chapter 12)*

1. False—Individuals can contribute to a traditional IRA each year the greater of a dollar amount or 100% of earned income. **It is the lesser of these two.**
2. True—People over the age of 50 can make an additional catch-up contribution to a traditional or Roth IRA, above the annual dollar limit.
3. False—People with only passive investment income can't contribute to a traditional IRA. But they can contribute to a Roth. **They can't contribute to either.**
4. False—Distributions are required from traditional IRAs at the later of retirement date or age 65. **RMDs are not required until the year after age 72.**
5. False—Required minimum distributions (RMDs) are required from both traditional and Roth IRAs starting in the year after age 72. **True for traditional but false for Roths. There are no RMDs during the account owner's lifetime in Roths.**
6. True—The bigger the traditional IRA balance, the bigger the RMD will be.
7. True—Once they start, RMDs must continue every year until the account is exhausted.

Pop Quiz—Solutions (Continued)

Pop Quiz 3 *(Chapter 12)*

__X__ The same annual dollar contribution limits as in a traditional IRA apply.

_____ Anyone can contribute, with any income and at any age. **There are income limits on who can contribute. There are no age limits.**

__X__ All contributions are made with after-tax dollars.

__X__ The same investment choices are allowed as in traditional IRAs.

__X__ Withdrawals can be totally tax-free. **Yes, if taken after the fifth year and after age 59 ½**

__X__ There are no required minimum distributions during the account owner's lifetime.

__X__ Contributions aren't prohibited because the Roth IRA owner or a spouse is covered by a retirement plan at work.

Pop Quiz 4 *(Chapter 12)*

(**D**) Contributions are made with after-tax dollars, for federal income tax purposes. However, some states allow a state income tax deduction for all or part of the contribution. Distributions are only tax-free if they are made for qualified educational expenses. When distributions are not made for qualified educational expenses, the earnings portion is taxable, and a 10% federal penalty also applies on it.

Pop Quiz 5 *(Chapter 12)*

__D__ An insurance company contract in which returns depend on the performance of managed investment funds

__B__ A tax-advantaged savings account designed for individuals with disabilities

__A__ An insurance company account in which non-guaranteed investments are held

__C__ A tax-advantaged savings account designed to help individuals save for education costs

Unit Exam (Continued)

1. George and Helen, a married couple, are retired, but they have a part-time business selling antiques. They report on their joint income tax return about $10,000 of net income annually from the business. George, age 72, has a traditional IRA. Helen, age 73, has a Roth IRA. Who can make an IRA contribution?

   A. Neither
   B. Only George
   C. Only Helen
   D. Both

2. In which type of retirement plan does the employer bear the risk of investment losses?

   A. Traditional IRA
   B. 401(k)
   C. Defined benefit
   D. Defined contribution

3. What is the major difference between profit-sharing plans and 401(k) plans?

   A. 401(k) plans offer more investment choices.
   B. Profit-sharing plans are more predictable.
   C. 401(k) plans give employees the option of contributing their own money.
   D. Profit-sharing plans have more stringent eligibility requirements.

4. Who can sponsor a 457(b) plan?

   A. Small employers
   B. State and local governments and tax-exempt organizations
   C. Religious and educational organizations
   D. Self-employed individuals

5. When do full-time employees over the age of 21 automatically become eligible to participate in a company's non-qualified plan?

   A. After one year of service
   B. After two years of service
   C. After joining the executive team
   D. Whenever the employer decides to include them

6. Betsy works for herself as a freelance artist and earns $40,000 per year. Her husband, Jeff, does not work but rather stays home to take care of their child. They are both age 39. How much can each contribute to a traditional or Roth IRA this year?

   A. Betsy, $6,000; Jeff, nothing
   B. Betsy, $6,000; Jeff, $1,250
   C. Betsy, $2,750; Jeff, $2,750
   D. Betsy, $6,000; Jeff, $6,000

7. Hank and Sally, a married couple, are both retired and age 66. Hank works part-time and earns $6,500 in a year. They have no other income. He contributes $6,000 to his traditional IRA. Can Sally make a contribution in the same year and of how much?

   A. Yes, $500, to either a traditional or Roth IRA
   B. Yes, $6,000, but only to a Roth IRA
   C. No, he has used all of their combined contribution limit, so she can't contribute.
   D. No, she doesn't work so she can't contribute.

Unit Exam (Continued)

8. The Clarks are a wealthy retired couple with more than $500,000 per year in investment income and $40,000 of self-employment income. Jim is age 72, and Edna is age 68. Who can contribute to which type of IRA?
   A. Only Jim can contribute and only to a Roth IRA.
   B. Only Edna can contribute and only to a traditional IRA.
   C. Both can contribute but only to a Roth IRA.
   D. Both can contribute but only to a traditional IRA.

9. At age 42, Melissa is forced to take a $10,000 withdrawal from her traditional IRA to pay for her daughter's college tuition. She has made no after-tax contributions. How much of this is taxable and what is the penalty for early withdrawals?
   A. $5,000 is taxable; $1,000 penalty
   B. $10,000 is taxable; no penalty
   C. $10,000 is taxable; $1,000 penalty
   D. None is taxable; no penalty

10. Thomas, who is retired, forgot to take a required minimum distribution (RMD) from his traditional IRA. At age 75, he should have distributed $20,000, but he distributed nothing. What must he do to fix this?
    A. Apply for an extension
    B. Distribute an extra $20,000 next year and pay a $2,000 penalty
    C. Pay a $10,000 federal excise tax
    D. Liquidate the IRA

11. Kenneth opened a Roth IRA on January 30, 2018. He is now age 60. When can he start taking totally tax-free withdrawals from this IRA?
    A. Any time after he turned age 59 ½
    B. In 2022
    C. In 2023
    D. Not until he turns age 72

12. Paula is retiring in two months and she needs current income. She wants to buy an annuity that will pay her $500 of income per month for the rest of her life, with all payments guaranteed by an insurance company. What type should she buy?
    A. Deferred variable
    B. Deferred fixed
    C. Immediate variable
    D. Immediate fixed

13. Ned wants to buy annuities so that 60% of his money will be guaranteed and earn a competitive interest rate, making it so that 40% of his money will be non-guaranteed and tied to stock and bond funds. Can he do this and how?
    A. No, none of the money in an annuity is guaranteed.
    B. No, because 100% of the money in an annuity is guaranteed
    C. Yes, allocate 60% to the general account and 40% to separate accounts.
    D. Yes, allocate 60% to money market funds and 40% to mutual funds.

14. How is the separate account of a variable annuity regulated?
    A. As an investment company
    B. As a limited partnership
    C. As a non-taxable corporation
    D. As a hedge fund

Unit Exam (Continued)

15. Howard is going away for his freshman year of college, and his parents have been setting aside money for his college expenses in a 529 college savings plan. He will be a full-time student. They want to make sure withdrawals from the plan are used for qualified educational expenses. Which of the following is not qualified?

    A. Tuition and fees
    B. Room and board
    C. Transportation
    D. Books and technology fees

16. Judith has three children. The oldest is an 18-year-old son, Grayson. Several years ago, she set up a 529 college savings plan with Grayson as the beneficiary. However, he now has stunned her by saying he doesn't want to go to college. She doesn't want to liquidate the account or pay any income taxes and penalties. What option does she have for achieving her goal?

    A. Use the money for her son's benefit while he is in the army
    B. Withdraw only the tax-free portion of the 529 plan
    C. Keep the account in her son's name or make another child the beneficiary
    D. Roll over the money tax-free to her own IRA

Unit Exam—Solutions

1. (**D**) Contributions to a traditional and Roth IRA are permitted at any age, provided the individual has earned income. Note that for traditional IRAs, this was increased from 70 ½ on January 1st, 2020 by the Secure Act.

2. (**C**) In defined benefit plans, the employer bears responsibility for investment decisions and the risk of any investment losses. If losses cause the plan to fall short of the defined benefit promised, the employer must contribute more to make up the shortfall. In other types of retirement plans, employees bear the risk of investment losses. (If investments lose money, employees have less money in their retirement accounts.)

3. (**C**) 401(k)s are profit-sharing plans with an important feature added. This is an elective deferral—a feature that gives plan participants the option of putting their own money in the plan, in addition to employer contributions. Employers can then choose to make profit-sharing contributions, matching contributions based on each worker's deferral, both types of contributions, or no contributions.

4. (**B**) 457(b) plans are sponsored by state and local governments and tax-exempt 501(c) organizations. They should not be confused with 403(b) plans, which are sponsored by nonprofit, religious, and educational institutions. A 457(b) plan works much like a 401(k) in that it is participant-directed and funded in part by participant elective deferrals.

5. (**D**) Non-qualified plans are not covered by ERISA. Unlike ERISA plans, they do not have automatic eligibility rules. Employers can include or exclude any employees they want. This makes these plans useful for rewarding highly paid, senior, or loyal employees.

6. (**D**) A married couple can both contribute up to the dollar limit (plus any catch-ups) as long as their combined income equals or exceeds their combined annual contributions

7. (**A**) A married couple can both contribute up to the dollar limit (plus any catch-ups) as long as their combined income equals or exceeds their combined annual contributions. In this case, they can divide $6,500 in contributions in any way they wish among two IRAs, traditional or Roth. Since he has contributed $6,000, she is limited to $500.

8. (**D**) Their income is too high for either to qualify for a Roth IRA contribution. (Only Roth IRAs have income limits on contributions.) However, both individuals can contribute to a traditional IRA as contributions to a traditional IRA are permitted at any age, provided the individual has earned income.

9. (**B**) Withdrawals from IRAs are fully taxable at any age, unless they are withdrawals of after-tax contributions. Early withdrawals are those made before age 59 ½ and they are subject to a 10% penalty—10% of the withdrawal—unless an exception applies. Payment of education expenses for the account owner, a spouse, her children, or her grandchildren is one of the exceptions.

Unit Exam—Solutions (Continued)

10. (**C**) Failure to take all of a required RMD subjects the traditional IRA account owner to a federal excise tax of 50% on the amount that should have been distributed. There are no extensions or excuses allowed, and distributing more in a subsequent year is not a remedy. The federal excise tax must be paid.

11. (**C**) Totally tax-free distributions from Roth IRAs are allowed if they meet two tests. First, they must be made after the five-year period that begins with the first tax year the Roth was set up. In this case, 2022 is the fifth year, and 2023 is after the fifth year. Second, they must be taken after age 59 ½. He has already met this test. If the tests aren't met, withdrawals of contributions are tax-free and withdrawals of earnings are taxable and subject to a 10% penalty, unless an exception applies.

12. (**D**) Annuities can begin paying income immediately or much later. In the first case, they are immediate annuities, and in the second case they are deferred annuities. The value of the invested amounts and/or interest can be guaranteed (fixed) or can fluctuate with investment performance (variable). In an immediate fixed annuity, all future payments are guaranteed by an insurance company.

13. (**C**) Deferred annuities are of two types: fixed and variable. Fixed deferred annuities are allocated to the insurer's general account, guaranteed as to principal, and earn a competitive interest rate. Variable annuities are allocated to separate accounts and returns are linked to stock and bond funds. Some variable annuities also offer a fixed account choice that functions like a fixed deferred annuity.

14. (**A**) Separate accounts have much in common with other investment companies, including mutual funds. They typically include a variety of managed funds that have specific investment objectives and diversify holdings among many securities.

15. (**C**) To be tax-free and penalty-free, 529 plan withdrawals must not exceed the amount of the student's qualified education expenses paid in the same tax year. Tuition, fees, books, and technology assessments are qualified. Room and board is qualified (on or off campus) if the student is enrolled at least half time and the expense does not exceed the limit determined by each school. Transportation, medical expenses, and insurance costs are not qualified education expenses.

16. (**C**) This is a common dilemma with 529 plans, but there are options. She can keep the plan in her son's name, hoping that he changes his mind and one day attends school, or she can change the beneficiary to another child without penalty.

Section 4:

Regulatory Framework and Industry Rules

As is the case in any industry, participants must act in a manner that is consistent with the regulatory framework established by the appropriate authorities. As it relates to the securities industry, SIE candidates must be familiar with the rules established by the SEC, self-regulatory organizations, such as FINRA and the MSRB, the federal government and state administrators. This section will review the regulatory framework of the securities industry as well as business conduct rules and practices that must be followed.

KNOPMANMARKS
FINANCIAL TRAINING

13. FINRA Registration

Securities regulations in the United States include both federal- and state-level regulations. The **Securities and Exchange Commission (SEC)** holds primary responsibility for enforcing federal securities laws and for regulating the securities industry, the nation's stock and options exchanges, and other electronic securities markets. Created by the Securities Exchange Act of 1934, the SEC was also given the power to regulate the companies whose securities are listed on exchanges and the broker-dealers that facilitate trading on these exchanges and on various OTC venues.

Quasi-governmental organizations, or **self-regulatory organizations (SROs)**, also have authority over the securities industry. Certain regulatory authority is delegated by the SEC to FINRA and other SROs, such as the **Municipal Securities Rulemaking Board (MSRB)**. Many states also regulate the securities industry and broker-dealers under separate state securities laws, known as **blue sky laws**.

This chapter will discuss the role played by SROs as well as the registration requirements of both broker-dealers and their employees, as well as investment advisory firms.

Chapter Goals

- Know the role of the SEC and its relationship with the different self-regulatory organizations.
- Compare the authorities of the MSRB and FINRA.
- Describe the registration process for becoming a broker-dealer, registered representative, and investment adviser.
- Differentiate between Form U4 and Form U5.
- Explain how a firm or registered representative becomes statutory disqualified.
- Understand the continuing education requirements.

Key Terms

- **Securities and Exchange Commission (SEC)**—A government agency that is primarily responsible for enforcing federal securities laws and regulating the securities industry
- **Self-regulatory organizations (SROs)**—Regulatory bodies, including FINRA and the MSRB, that are empowered by and accountable to the SEC for regulating certain aspects of the securities industry

- **Financial Industry Regulatory Authority (FINRA)**—A self-regulatory organization that regulates US securities firms and their employees in order to protect investors and ensure fairness within the industry
- **Municipal Securities Rulemaking Board (MSRB)**—A self-regulatory organization that is responsible for regulating all aspects of the municipal securities industry
- **Form U4**—A form that must be completed by an individual in order to register with FINRA or the MSRB and become a registered representative
- **Statutory disqualification**—Occurs when an individual has been convicted of a felony or a securities-related misdemeanor in the past 10 years, preventing them from becoming associated with a firm unless they receive a waiver from FINRA
- **Registered principal**—An associated person of a firm that is involved in the day-to-day management and supervision of the firm's investment banking or securities business
- **Firm Element**—A component of a securities professional's continuing education that is administered by the firm and must be completed on an annual basis
- **Regulatory Element**—A component of a registered securities professional's continuing education that is administered by FINRA and must be completed within 120 days of the person's second anniversary of registration and every three years thereafter
- **Investment Advisers Act of 1940**—A federal law that defines and regulates investment advisers
- **Investment adviser**—Any person or firm that provides securities-related advice on a regular basis for a fee

13.1 Self-Regulatory Organizations (SROs)

The SEC is a government agency that acts as the primary regulatory body in the securities industry. In this role, the SEC has the authority to delegate certain enforcement responsibilities to SROs, such as FINRA and the MSRB. These SROs are empowered by and accountable to the SEC for regulating certain aspects of the securities industry, such as enforcing securities laws and supervising their members.

Knopman Note: **The primary mission of SROs is to provide investor protection and promote market integrity. The SEC regulates FINRA, MSRB, and other SROs. The SEC itself is a government agency, not an SRO.**

Knopman Note: **The SEC and the various SROs can censure a firm and its employees for wrongdoing, but they do not have criminal authority, meaning they cannot put anyone in jail. Criminal charges must be brought by the attorney general.**

13.1.1 FINRA

The Financial Industry Regulatory Authority (FINRA) is the largest independent regulator of all securities firms doing business in the United States. Its chief role is to protect investors by maintaining fairness in the US capital markets. FINRA is involved in nearly every aspect of the securities business. Its roles include:

- Registering and educating industry participants
- Writing and enforcing rules, while enforcing the rules of the SEC
- Examining firms for regulatory compliance
- Administering dispute-resolution forums for investors and member firms
- Performing market regulation for various exchanges, including Nasdaq

Firms that are engaged in investment banking and general securities business in US markets must generally become FINRA members and are subject to its regulatory oversight.

> ***Knopman Note:*** **FINRA is overseen by the SEC, and its primary mission is to regulate broker-dealers and registered representatives. FINRA can make rules, but they must be approved by the SEC before they become effective.**

13.1.2 MSRB

The Municipal Securities Rulemaking Board (MSRB) was established in 1975 to govern the conduct of the participants in the municipal securities market. The rules of the MSRB build upon the general framework of federal securities laws, but add considerable detail that is tailored to the uniqueness of the municipal securities business.

The MSRB creates rules and policies for firms and banks to regulate the underwriting, trading, and selling of municipal securities. The MSRB, however, does not have the authority to regulate municipal securities issuers, only municipal securities firms and professionals. For example, New York City is not subject to the jurisdiction of the MSRB.

While the MSRB has rulemaking authority, it does not have enforcement authority. It relies on other regulatory agencies to monitor the activities of municipal securities dealers and municipal advisors. These other regulators are granted the authority to discipline securities firms and individuals who violate rules.

Specifically, FINRA enforces the rules of the MSRB for securities firms. Within banks, MSRB rules are enforced by the Federal Reserve Board, the Office of the Comptroller of the Currency, and the FDIC. The SEC has enforcement authority over municipal advisors in addition to all securities firms and banks.

***Knopman Note:* The MSRB regulates securities firm and professionals, but *not* the issuers of municipal securities.**

13.2 FINRA Registration of Broker-Dealers

US securities laws require that all firms doing securities business as broker-dealers register with the SEC and become FINRA members. To initiate the process, the firm must submit to FINRA a New Member Agreement, Form BD, a detailed business plan, and the appropriate fees. Of course, this registration cannot be incomplete, inaccurate, or misleading in any way. Registration with the SEC is complete when FINRA approves the New Member Agreement.

FINRA's New Member Agreement memorializes the contractual relationship between the firm and FINRA. It requires certifications that the firm will comply with various securities regulations, as well as maintain high standards of commercial honor and just and equitable principles of trade. It outlines the firm's permitted and prohibited business activities, based on its business plan and supervisory procedures. The firm may begin conducting business only when the New Member Agreement has been approved.

After a firm's membership has been approved by FINRA, the firm must submit a Form U4 (discussed shortly), fingerprints, and fees for each associated person who is required to be registered under FINRA rules. Registration requirements apply to any person associated with a member firm who is engaged in the securities business of the firm. Note that individuals may register with FINRA only if employed and sponsored by a FINRA member firm. The failure of any firm to register an employee could subject the firm to disciplinary action.

For purposes of FINRA membership admission, the broker-dealer and its principals are only required to be registered in the state in which the firm's home office is located. However, under state blue sky laws, the broker-dealer, principals, and each registered representative must be registered in every state in which securities business will be conducted. It is not uncommon for firms, especially large ones, to register their reps to conduct business in all US states and territories (though a fee will be paid for each one).

Knopman Note:

***Q:* What does it mean for a broker-dealer to be SEC and FINRA registered?**

***A:* When a broker-dealer is registered with FINRA and the SEC, it means that the broker-dealer is authorized to do securities business. It does not mean that FINRA and the SEC are endorsing the services of the firm or confirming the ethical nature of the firm's practices. A broker-dealer cannot suggest or imply that its SEC registration means its business dealings are approved or endorsed by the SEC.**

13.3 Registration of Personnel

An associated person of a broker-dealer is one whose activities are controlled directly or indirectly by a member firm. Not all associated persons require registration with FINRA and/or the MSRB. In addition, only duly employed personnel of a firm can be sponsored for registration. It would be a violation of FINRA and MSRB regulations to sponsor someone who is not employed by the firm. This is referred to as **parking a registration**.

Example

Todd worked hard for 15 years selling securities as a registered representative and was a top performer at his firm. He now wants to retire, but keep his options open, so he asks the compliance department to maintain his registration even though he would not be working for the firm or performing.

The compliance department must refuse this request to "park" Todd's license. FINRA licenses are only available for employees of the firm.

13.3.1 Form U4

Form U4 collects pertinent background information about candidates for registration. The form is used as a screening tool by firms and regulators for new or continued registration. It is one of the primary sources of information for a registered rep's **Central Registration Depository (CRD)** record with FINRA. It contains personal information about each broker or candidate, including:

- Name
- Social Security number
- Five years of residential address history
- 10 years of employment history (the three most recent years must be verified by the firm)
- Educational background

Form U4 also requires applicants to self-report information relating to customer complaints, arbitration claims, regulatory proceedings, bankruptcies, certain criminal history, certain civil litigation, and liens and judgments. Applicants must answer all questions on the U4 honestly, accurately, and completely, or face possible sanctions, including statutory disqualification from registration.

For reference, a picture of the cover page of a U4 can be seen here:

Rev. Form U4 (05/2009)

UNIFORM APPLICATION FOR SECURITIES INDUSTRY REGISTRATION OR TRANSFER

INDIVIDUAL NAME:	INDIVIDUAL CRD #:
FIRM NAME:	FIRM CRD #:

1. GENERAL INFORMATION

FIRST NAME:	MIDDLE NAME:	LAST NAME:	SUFFIX:
FIRM CRD #:	*FIRM* NAME		EMPLOYMENT DATE(MM/DD/YYYY):
FIRM Billing Code:	*INDIVIDUAL CRD* #:		INDIVIDUAL SSN:

Do you have an independent contractor relationship with the above named *firm*?: O Yes O No

Office of Employment Address:

O Registered O Non-Registered	CRD BRANCH #:	NYSE BRANCH CODE#:	*FIRM* BILLING CODE:	O Located At O Supervised From	START DATE:	END DATE:
OFFICE OF EMPLOYMENT ADDRESS STREET 1:		CITY:			STATE:	
OFFICE OF EMPLOYMENT ADDRESS STREET 2:		COUNTRY:			POSTAL CODE:	

Private Residence Check Box: If the Office of Employment address is a private residence, check this box. ☐

O Registered O Non-Registered	CRD BRANCH #:	NYSE BRANCH CODE#:	*FIRM* BILLING CODE:	O Located At O Supervised From	START DATE:	END DATE:
OFFICE OF EMPLOYMENT ADDRESS STREET 1:		CITY:			STATE:	
OFFICE OF EMPLOYMENT ADDRESS STREET 2:		COUNTRY:			POSTAL CODE:	

Private Residence Check Box: If the Office of Employment address is a private residence, check this box. ☐

O Registered O Non-Registered	CRD BRANCH #:	NYSE BRANCH CODE#:	*FIRM* BILLING CODE:	O Located At O Supervised From	START DATE:	END DATE:
OFFICE OF EMPLOYMENT ADDRESS STREET 1:		CITY:			STATE:	
OFFICE OF EMPLOYMENT ADDRESS STREET 2:		COUNTRY:			POSTAL CODE:	

Private Residence Check Box: If the Office of Employment address is a private residence, check this box. ☐

2. FINGERPRINT INFORMATION

Electronic Filing Representation

O By selecting this option, I represent that I am submitting, have submitted, or promptly will submit to the appropriate *SRO* a fingerprint card as required under applicable *SRO* rules; or

Fingerprint card barcode ______________________________

O By selecting this option, I represent that I have been employed continuously by the *filing firm* since the last submission of a fingerprint card to CRD and am not required to resubmit a fingerprint card at this time; or,

O By selecting this option, I represent that I have been employed continuously by the *filing firm* and my fingerprints have been processed by an *SRO* other than FINRA. I am submitting, have submitted, or promptly will submit the processed results for posting to CRD.

Exceptions to the Fingerprint Requirement

O By selecting one or more of the following two options, I affirm that I am exempt from the federal fingerprint requirement because I/*filing firm* currently satisfy(ies) the requirements of at least one of the permissive exemptions indicated below pursuant to Rule 17f-2 under the Securities Exchange Act of 1934, including any notice or application requirements specified therein:

☐ Rule 17f-2(a)(1)(i)

☐ Rule 17f-2(a)(1)(iii)

Investment Adviser Representative Only Applicants

O I affirm that I am applying only as an investment adviser representative and that I am not also applying or have not also applied with this *firm* to become a broker-dealer representative. If this radio button/box is selected, continue below.

O I am applying for registration only in *jurisdictions* that do not have fingerprint card filing requirements, or

O I am applying for registration in *jurisdictions* that have fingerprint card filing requirements and I am submitting, have submitted, or promptly will submit the appropriate fingerprint card directly to the *jurisdictions* for processing pursuant to applicable *jurisdiction* rules.

In addition, under FINRA Rule 3310 firms are mandated to ensure the good standing, experience, and qualifications of potential employees prior to their filing a U4 and also to implement written procedures reasonably designed to verify the accuracy of U4s promptly after they are submitted to FINRA. In order to ensure appropriate supervision over this process, FINRA Rule 1010 requires firms to designate a registered principal or corporate officer to oversee the firm's registration functions.

13.3.1.1 Pre-Dispute Arbitration Clause

FINRA Rule 2263 requires all registered representatives to sign a **pre-dispute arbitration agreement** as part of their Form U4s. This clause requires future disputes or controversies between the firm and rep to be settled through **arbitration** rather than the court. The representative gives up the right to sue and gives up the right to trial by jury except under special circumstances.

In an arbitration proceeding, arbitrators, instead of judges or juries, decide whether wrongdoing has occurred and how to correct the situation or compensate the appropriate parties. The industry favors arbitration because it is less expensive and more efficient than court proceedings. Awards under arbitration are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.

> ***Knopman Note:*** **FINRA arbitrators can be from both outside and inside the industry. Those from outside are called *public arbitrators*. Industry cases are decided by *industry arbitrators*. Cases involving the public must include arbitrators from the public sector. A law degree is not a required credential for arbitrators.**

Exceptions are made for employee disputes relating to employment discrimination or sexual harassment. This pre-dispute clause is also typically presented by a broker-dealer when a customer opens an account with the firm, though the customer is not required to consent.

> ***Knopman Note:*** **Disputes regarding sexual harassment or discrimination will only go to arbitration if both parties agree; otherwise, they will go to court.**

13.3.2 Fingerprinting Requirements

As part of this registration process, candidates must submit fingerprints. The requirement applies to all partners, directors, officers, and employees of all national securities exchanges, as well as to broker-dealers, registered transfer agents, and registered clearing agencies.

Certain securities industry employees do not require fingerprinting, such as persons who are not engaged in the sale of securities or do not regularly have access to the keeping, handling, or processing of securities, money, or original books and records relating to securities or money. For example, someone whose role is exclusively administrative is not required to be fingerprinted.

Broker-dealers are required to maintain these records for at least three years after the time a person leaves a firm. Clerical employees of a broker-dealer are not required to submit fingerprints. Additionally, a partner of a broker-dealer who has invested capital into the firm but has no other involvement is not required to submit fingerprints, as that partner is not involved in the firm's securities activities.

> ***Knopman Note:*** **A silent partner investor of a broker-dealer does not need to be fingerprinted.**

13.3.3 Qualification Examinations

Registration as a representative also requires passing qualification exams. Any person who fails to pass the exam can take it again after 30 calendar days have elapsed. A person who fails an examination three or more times in succession must wait until 180 calendar days have elapsed.

Both MSRB and FINRA rules prohibit the discussion or disclosure of any exam questions or content, as this information is confidential.

The various types of MSRB and FINRA qualifications and registrations are discussed below.

13.3.3.1 Securities Industry Essentials (SIE) Exam

All new candidates for registration are required to pass the Securities Industry Essentials or SIE Exam. This exam is available to anyone who is 18 or older and does not require that the individual be associated with a FINRA or MSRB member firm. Passing this exam alone does not qualify the individual to engage in securities business. Instead, to become fully registered, the individual must also pass one of the qualification exams that will be discussed below based on the type of business that person will engage in. The SIE credential is valid for four years, requiring individuals to pass their additional qualification exams within that timeframe, or else they will have to retake the SIE. Any individual who passed one of the qualification exams that will be discussed below prior to October 1, 2018, are exempt from taking the SIE as long as their registration licenses remain continuously valid.

> ***Knopman Note:*** **When an individual passes the SIE Exam, it does not qualify them to engage in securities business (e.g., solicit new business or enter transactions).**

13.3.3.2 Registered Representatives

As mentioned above, to become fully registered to conduct securities business activities, such as sales, trading, and investment banking, individuals must pass a qualification exam in addition to the SIE. These registered representative exams can only be taken by individuals who are associated and sponsored by a FINRA or MSRB member firm.

The most common representative registrations and the sales activities they facilitate are described here:

Series 6	Investment Company Products/Variable Contracts Limited Representative
Series 7	General Securities Representative
Series 52	Municipal Securities Representative
Series 57	Equity Trader Limited Representative
Series 63	Uniform Securities Agent State Law
Series 65	Uniform Investment Adviser State Law
Series 66	Uniform Combined State Law
Series 79	Limited Representative - Investment Banking
Series 86/87	Equity Research Analyst
Series 99	Operations Professional

***Knopman Note:* It is not important for the exam to memorize the various qualification exams.**

Pop Quiz 1 *(Chapter 13)*

Check all the statements that are TRUE about the Securities Industry Essentials (SIE) Exam.

_____ It is administered by FINRA at FINRA-authorized test centers.

_____ A person must be sponsored by a FINRA member to take the exam.

_____ Every registered representative must take the exam at some point in their career.

_____ For a person just entering the securities profession, passing the exam is required to become a registered rep.

_____ All experienced registered representatives are grandfathered and will never be required to take the exam.

Answers to chapter 13 pop quizzes begin on page 419

13.3.3.3 Registered Principals

Every broker-dealer is also required to have **registered principals**. These individuals, who must pass the requisite qualification examinations, are generally officers and other management personnel of the firm. Individuals are subject to registration as principals if they are involved in the day-to-day management of the firm's investment banking or securities business; in the supervision, solicitation, or conduct of business; or in the training of persons associated with a broker-dealer for any of these functions.

Under most circumstances, a firm is required to have a minimum of two principals.

13.3.3.4 Persons Exempt from Registration

Certain associated persons of a firm are not required to register with FINRA or the MSRB. These persons include employees who perform only clerical or administrative duties.

Note that individuals that engage in only municipal securities business register with the MSRB rather than FINRA.

13.3.4 Amended Form U4

Under FINRA rules, when a broker-dealer hires a representative it must ensure that the information on the representative's Form U4 is updated and kept current in the CRD system. The firm must update that information whenever significant changes or events occur, such as:

- Regulatory actions against the registered representative

- Certain customer complaints against the registered representative
- Settlements involving the registered representative
- Certain criminal charges and convictions of the registered representative
- Liens, bankruptcy filings, or a compromise with creditors

> ***Knopman Note:*** **A compromise with creditors by a registered rep requires notification to compliance and the filing of an amended U4. One example of such activity is a short sale of a home (mortgage) by a registered rep. This occurs if a rep sells a home for less than the outstanding mortgage balance owed to the lender (i.e., bank), with the bank then accepting less-than-full repayment of the mortgage.**

Normally, updates (e.g., a new address) must be filed within 30 calendar days of the event. However, a reportable event involving statutory disqualification (often the result of a criminal conviction, discussed later) must be disclosed to CRD within 10 calendar days.

> ***Knopman Note:*** **An amended U4 must be filed within 30 days if a registered rep engages in an outside business activity away from the firm (e.g., takes a second job or a paid position on a company's board). A lien (e.g., tax lien) filed against a rep also requires an amended U4.**

13.3.5 Form U5

Firms are required to notify FINRA of the termination of a registered person by filing a **Form U5** notice that includes the reason for termination. Firms must notify FINRA within 30 calendar days of an individual's termination.

Even persons who are no longer registered are subject to the jurisdiction of regulators for at least two years after their registration has been terminated. They must ensure that address information is continually updated during this time and may be required to provide information about their activities while associated with the firm.

For example, if a firm finds out that a former registered rep was in violation of a number of securities industry regulations, the firm must update the former employee's U5, even though the person has since left the firm.

> ***Knopman Note:*** **A firm must file a Form U5 with FINRA within 30 days of a registered rep's termination. The firm must provide a copy of the U5 form to the departing registered rep within 30 days and must keep the terminated rep's file updated for two years after termination. Additionally, the terminated rep is required to keep their address updated with FINRA for two years after termination.**

13.3.5.1 Examination Requalification Requirements

Registrations remain effective while individuals are active in the securities business. If a registered person leaves the employing firm and does not re-associate with another member firm within two years, the person would be required to retake their qualification exams when returning to the industry. Note that the SIE would not expire for four years. For example, an individual who is out of the industry for three years would need to retake the appropriate top-off exam, but not the SIE. Also, if a registration is revoked for regulatory reasons, examinations must be passed again.

> ***Knopman Note:*** **After a registered rep leaves a firm, they have two years to re-associate with a member firm (by completing another Form U4). Otherwise, any top-off licenses they hold, e.g., Series 7 or 79, will expire.**

Pop Quiz 2 *(Chapter 13)*

Indicate which form must be filed in response to each of the following events. The choices are **original U4**, **amended U4**, **U5**, and **none**. More than one answer is possible.

1. A rep is terminated by his broker-dealer. _______________
2. A rep takes maternity leave for three months but does not give up her licenses or employment. _______________
3. A rep is subject to a FINRA regulatory action. _______________
4. A rep who has been inactive and not employed in the securities industry for a few years decides to get licensed again and is hired by a broker-dealer. _______________
5. A rep gets married and legally changes her name. _______________
6. A rep gets a master's degree and wishes to add it to her educational background. _______________
7. A rep decides to switch broker-dealers. _______________

13.3.6 BrokerCheck

FINRA Rule 8312 requires FINRA and other regulators to make background information on broker-dealers and registered representatives publicly available. This includes information on registration, employment, and disciplinary history. Investors may access this information through **BrokerCheck** online or via a toll-free number. Also, FINRA Rule 2210 requires broker-dealers to provide a link to BrokerCheck on their website.

Under FINRA Rule 2267, broker-dealers are required to provide customers with an annual notice detailing the website address and phone number for BrokerCheck along with what content the firm makes available on it.

13.3.7 Statutory Disqualification

Several events can either prevent a person or firm from becoming registered or result in the loss of registration. Prevention or loss of registration from these events is known as **statutory disqualification**, which results from any of the following:

- Felony convictions within the last 10 years
- Misdemeanors involving securities, investments, fraud, extortion, bribery, or other unethical activities within the last 10 years
- Temporary and permanent injunctions issued at any time by a court involving a broad range of unlawful investment activities
- Expulsion and/or suspension from membership in an SRO or another regulator
- Findings that a broker-dealer or person has made false statements in applications or reports made to, or in proceedings before, SROs
- Involvement in arbitration or civil litigation that concludes with findings of sales practice violations
- Findings by the SEC or an SRO that a person willfully violated federal securities laws

FINRA Rule 4530 requires firms to promptly update FINRA if any of the above activities occur and to file with FINRA copies of any criminal action, civil complaints, and arbitration claims.

Knopman Note: **A conviction of any securities-related crime in the past 10 years—whether a misdemeanor or felony—is grounds for a statutory disqualification. An arrest, however, is not. For example, if a rep were arrested for shoplifting, the rep would not be subject to a statutory disqualification. The firm's compliance department should be notified, but the legal process would likely be allowed to run its course without any subsequent action.**

Knopman Note: **If FINRA believes that a registered rep has committed a rules violation, it can investigate the matter. To do so, FINRA will typically send a written request for information to both the firm and rep, seeking basic information about the event or complaint. Additionally, FINRA can require that the rep submit to an interview and meet with regulators as part of the investigation.**

13.3.7.1 Eligibility Proceedings

Once aware of a statutory disqualifying event, a firm is obligated to report the event to FINRA within 10 days on an amended Form U4. In the case of a disqualified person, the firm must either file a Form U5 if it wishes to terminate the individual's association, or request a waiver from ineligibility if it wishes to sponsor the association of the disqualified person.

The waiver request must include information about the terms and conditions of the proposed employment, with emphasis on the proposed supervision to be accorded the disqualified person. If a waiver is granted, the firm typically must ensure active and comprehensive supervision of that associated person.

> ***Knopman Note:*** **Persons subject to a statutory disqualification may not associate with a FINRA member in any capacity unless they receive a waiver from FINRA.**

Pop Quiz 3 *(Chapter 13)*

True or false?

1. A felony conviction within the last 10 years results in a statutory disqualification.
2. Being arrested for a felony within the last two years results in a statutory disqualification.
3. A misdemeanor conviction for fraud, extortion, or bribery within the last 10 years results in a statutory disqualification.
4. A statutory disqualification will cause a securities-licensed person to lose their license.
5. Securities firms must report statutory disqualifications to FINRA within 30 days.
6. A person subject to statutory disqualification can still be employed by a FINRA member, but not as a licensed person.

13.3.8 Continuing Education

The securities industry mandates **continuing education** for its practitioners. FINRA administers the continuing education program on behalf of the securities industry.

FINRA Rule 1250 and MSRB Rule G-3 define two mandatory programs of continuing education: the Regulatory Element and the Firm Element.

13.3.8.1 Regulatory Element

The **Regulatory Element** requires all registered individuals to complete a computer-based training program within 120 days of the second anniversary of their registration date and every three years thereafter (e.g., year 2, 5, 8, 11, 14, etc.). Each broker-dealer will notify its employees of their Regulatory Element requirements. The program focuses on compliance, regulatory, ethical, sales practice, and supervisory standards. Its content is derived from industry rules and regulations, as well as widely accepted standards and practices within the industry.

Registrations of individuals who do not satisfy Regulatory Element requirements become **continuing education (CE) inactive**. A person in CE inactive status cannot engage in, or receive compensation for, any activities that require a securities registration. Residual commissions for business completed before the inactive period commenced may be paid.

A registered person can remain CE inactive for up to two years. At this point, the person's registration will be administratively terminated, and the person must requalify for registration by passing the appropriate qualification examination.

> ***Knopman Note:*** **If an individual fails to complete the Regulatory Element training, their registration becomes CE inactive. This means the individual cannot perform any duties or function in any capacity requiring registration. The employee is also prohibited from receiving any compensation that requires registration (e.g., commissions) while CE inactive.**
>
> **Should the individual remain CE inactive for two years, their registration will lapse (same as if they were unassociated with a member firm), and they will need to retake that exam to restore their registration.**

13.3.8.2 Firm Element

The **Firm Element** requires broker-dealers to establish a formal training program to keep their employees up to date with current industry information and products. Each year a firm is required to analyze and evaluate its training needs by conducting a needs analysis that considers factors such as the size and scope of the business, types of products and services offered, any customer complaints and legal or regulatory actions facing the firm, and the performance of its registered persons in the Regulatory Element.

> ***Knopman Note:*** **The Firm Element must be completed by all *covered persons*, which are registered individuals and supervisors who interact with customers.**

After completing its needs analysis, the firm must create a written training plan that describes in detail how the Firm Element will be conducted for the upcoming year. The needs analysis and the training plan must be completed by the end of each calendar or fiscal year.

The content of the firm's training plan is not defined or approved by FINRA or other regulators. The program material must be appropriate for the business of the firm, and the firm should be able to demonstrate that the training relates to its products, services, and strategies. The material can be internally prepared, purchased from outside vendors, or derived from materials or presentations prepared by regulators or professional associations, as long as it is relevant to the needs of the firm.

Knopman Note: **Firm Element CE must be completed by a registered rep annually. However, firm policies could require a rep to complete it more frequently.**

If newly hired representatives have already completed the Firm Element with another firm, they may not be required to complete the Firm Element with their new broker-dealer, unless the new firm feels the training would be beneficial.

The firm must keep track of an individual's compliance with the Firm Element and failure to complete it could result in disciplinary action by their firm or by a regulatory authority, though it is does not result in CE inactive status.

Knopman Note: **Make sure to know the difference in timing between the Firm Element and Regulatory Element CE.**

Pop Quiz 4 *(Chapter 13)*

Match each term with the appropriate description.

A. Statutory disqualification
B. Regulatory Element
C. SROs
D. Firm Element
E. Form U4

______ A CE program administered by FINRA; completion required after the second anniversary and then every three years

______ Regulatory entities such as FINRA and the MSRB, empowered to act under SEC authority

______ Results from the conviction of a registered person for a felony or securities-related misdemeanor

______ Captures essential information about registered persons

______ A CE program administered by FINRA members, with an annual participation requirement

13.4 State Blue Sky Laws

As mentioned, each state also regulates the securities industry under its **blue sky laws**. Kansas was the first state to adopt such a law, in 1911, after its banking commissioner crusaded against "speculative schemes which have no more basis than so many feet of blue sky." The term was echoed in a landmark US Supreme Court opinion written by Justice Joseph McKenna in 1917, and has been used ever since.

> ***Knopman Note:*** **State securities laws are also referred to as *blue sky laws*. NASAA, the North American Securities Administrators Association, is a membership organization for state securities administrators in charge of overseeing blue sky laws.**

Blue sky laws are enforced by each state's securities department or commission and led by the state's securities commissioner. The primary role of state securities regulators is to 1) protect consumers who purchase securities or investment advice and 2) supervise the issuers and intermediaries who offer and sell securities to the public. As a general matter, both securities and securities firms, such as broker-dealers, investment advisers, and their professionals, must register at the state level.

> ***Knopman Note:*** **If a client of a representative moves to another state, the representative cannot make a trade for that client until becoming registered in that state. If the client wishes to trade, the rep should forward the trade to someone in the firm who is registered in that state.**

13.5 Investment Advisers

While this chapter has focused primarily on the requirements of broker-dealers and their employees, candidates should also be familiar with the registration requirements of investment advisers.

The **Investment Advisers Act of 1940** defines an **investment adviser (IA)** as any person or firm that is engaged in the business of providing advice regarding securities *for compensation*. Typically, the fee is a percentage of the assets under management, although it also may be hourly, flat, or per-service. Because investment advisers are in the business of providing advice to customers, they have a fiduciary responsibility to act in the best interests of their clients.

Most investment advisers manage individual client portfolios, mutual funds, or hedge funds. Financial planners who recommend securities and charge fees are also investment advisers. However, registered representatives of a broker-dealer who execute trades and receive commissions are generally not advisers.

> ***Knopman Note:*** **Investment advisers have a fiduciary responsibility to act in the best interest of the clients they represent. Note that representatives of broker-dealers are not subject to a fiduciary standard. Instead, they are subject to a suitability standard, meaning that all recommendations must be appropriate for the customer.**

Under the Investment Advisers Act of 1940, most investment advisers are required to register—i.e., become **registered investment advisers (RIAs)**. The purpose of registration is to provide prospective investors clear disclosures about the adviser's background, business, methods, and fee structure. In addition, registration allows regulators to monitor this information, audit the adviser's practice, and hold advisers accountable.

Investment advisers differ from broker-dealers in that IAs charge for the *advice* that is being provided whereas broker-dealers charge for transactions that are executed. However, some broker-dealers do offer **wrap accounts**, which provide a group of services, including investment advice and brokerage services, for a single fee. In this scenario, because broker-dealers are charging for advice, a broker-dealer would need to dually register as both an investment adviser and a broker-dealer.

13.5.1 Investment Adviser Registration

Most investment advisers are required to register with *either* the SEC or with the securities commissions of the states in which they operate.

Generally, larger advisers, which are defined as those with over $100 million in assets under management, must register with the SEC. In contrast, smaller advisers, those with less than $100 million in assets, must directly register in each state that they operate in rather than the SEC.

Assuming SEC registration is required, a firm registers with the SEC by filing **Form ADV**.

The SEC does not require separate registration of individuals who work under an SEC-registered investment adviser delivering investment advice and services to individual clients. However, most states require registration of such individuals as **investment adviser representatives (IARs)**. An IAR is generally defined by states as a person affiliated with a registered investment adviser who:

- Provides advice or recommendations regarding securities
- Manages portfolios for clients for a fee
- Solicits or negotiates investment advisory services
- Supervises other investment adviser representatives

Most states require IAR registration for any individual working for a registered investment adviser who meets one or more of these criteria, regardless of whether the investment adviser itself is registered with the state or the SEC. Put differently, investment adviser representatives must register at the state level regardless of whom they work for.

To register, investment adviser reps generally must pass the appropriate exam and submit Form U4, which is then made available to the investing public through CRD.

Pop Quiz 5 *(Chapter 13)*

Wallace is interested in becoming a portfolio manager for wealthy clients by registering as an investment adviser. Fill in the blanks below.

1. He must register with the SEC if he manages more than $______________ in assets.
2. If he must register with the SEC, he does so by filing Form ______________.
3. If he hires someone to work under his supervision, soliciting investment advisory services, that person does not need to become a registered investment adviser. Rather, they can register as ______________. This registration is filed with ______________.

13.5.2 Exemptions from Investment Adviser Registration

As mentioned, most investment advisers are required to register with either the SEC or at the state level. However, several types of businesses or professionals are **excluded** from registration, meaning they are not required to register. They include:

- Lawyers, accountants, engineers, and teachers
- Banks and bank holding companies
- Bona fide publishers of newspapers, magazines, and general-circulation business or financial publications (e.g., *Wall Street Journal*)—however, publishers of investment newsletters that make specific recommendations tailored to individuals are required to register.
- Family office advisers that provide advice only to clients of one family, including their employees and former family members
- Broker-dealers and registered reps who provide advice that is **solely incidental** to their main business and receive no special compensation for advisory services

Example

Jim asks his registered rep, Jane, about good stocks in the tech sector. After reviewing a few names Jane offered, Jim buys 100 shares of Apple, Inc. In this case, Jane's advice is incidental to her business as a registered rep of a broker-dealer. Therefore, she is not required to register as an IAR.

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 13)*

__X__ It is administered by FINRA at FINRA-authorized test centers.

_____ A person must be sponsored by a FINRA member to take the exam. **No sponsorship is required. Anyone age 18 or older can take it.**

_____ Every registered representative must take the exam at some point in their career. **See the explanation below.**

__X__ For a person just entering the securities profession, passing the exam is required to become a registered rep. **It is the first step and must be followed by a top-off exam, such as the Series 6 or 7.**

_____ All experienced registered representatives are grandfathered and will never be required to take the exam. **See the explanation below.**

Explanation: Individuals who have passed one of the qualification exams (such as Series 6 or 7) prior to October 1, 2018, are exempt from taking the SIE as long as their registration licenses remain continuously valid. If a person loses his license in the first four years after October 1, 2018, he will be exempt from the SIE if the license is reinstated within four years.

Pop Quiz 2 *(Chapter 13)*

1. A rep is terminated by his broker-dealer. **U5**
2. A rep takes maternity leave for three months but does not give up her licenses or employment. **None**
3. A rep is subject to a FINRA regulatory action. **Amended U4**
4. A rep who has been inactive and not employed in the securities industry for a few years decides to get licensed again and is hired by a broker-dealer. **Original U4**
5. A rep gets married and legally changes her name. **Amended U4**
6. A rep gets a master's degree and wishes to add it to her educational background. **Amended U4**
7. A rep decides to switch broker-dealers. **U5 by the old employer; original U4 with the new employer**

Pop Quiz—Solutions (Continued)

Pop Quiz 3 *(Chapter 13)*

1. True—A felony conviction within the last 10 years results in a statutory disqualification.
2. False—Being arrested for a felony within the last two years results in a statutory disqualification. **Arrests are not disqualifying, only convictions.**
3. True—A misdemeanor conviction for fraud, extortion, or bribery within the last 10 years results in a statutory disqualification.
4. True—A statutory disqualification will cause a securities-licensed person to lose their license.
5. False—Securities firms must report statutory disqualifications to FINRA within 30 days. **They must be reported within 10 days.**
6. False—A person subject to statutory disqualification can still be employed by a FINRA member, but not as a licensed person. **This person may not associated with a FINRA member in any capacity, unless FINRA grants a waiver.**

Pop Quiz 4 *(Chapter 13)*

__B__ A CE program administered by FINRA; completion required after the second anniversary and then every three years

__C__ Regulatory entities such as FINRA and the MSRB, empowered to act under SEC authority

__A__ Results from the conviction of a registered person for a felony or securities-related misdemeanor

__E__ Captures essential information about registered persons

__D__ A CE program administered by FINRA members, with an annual participation requirement

Pop Quiz 5 *(Chapter 13)*

1. He must register with the SEC if he manages more than **$100 million** in assets.
2. If he must register with the SEC, he does so by filing **Form ADV**.
3. If he hires someone to work under his supervision, soliciting investment advisory services, that person does not need to become a registered investment adviser. Rather, they can register as **an investment adviser representative (IAR)**. This registration is filed with **one or more states**.

Unit Exam

1. The SEC is empowered to take all of the following enforcement actions against registered persons and firms **except**:

   A. Imposing fines
   B. Revoking registration
   C. Bringing criminal charges
   D. Censuring firms

2. FINRA derives its power to regulate the US securities industry from which authority?

   A. The Securities Act of 1933
   B. The Securities Exchange Act of 1934
   C. The SEC
   D. The executive branch of the US government

3. Which one of the following participants in the municipal bond market is not subject to rules of the MSRB?

   A. A municipal bond issuer
   B. A broker-dealer that is active in the municipal market
   C. A municipal securities market maker
   D. A municipal securities salesperson

4. Which information contained on a new rep's Form U4 must be verified by the FINRA member firm that sponsors them?

   A. Five years of residential address history
   B. Educational background
   C. The three most recent years of employment history
   D. Recent liens and judgments

5. Carl is a registered rep with ABC securities. His wife gets seriously ill and he must stay home to care for her. He doesn't want to quit work, so he asks ABC whether he can make his home his official office of employment. This address change takes place on May 1. Must he update his Form U4 and if so, by when?

   A. No, this information is not contained on the U4.
   B. No, because updating the U4 is his firm's responsibility
   C. Yes, by May 16
   D. Yes, by May 31

6. When Jamie joined his broker-dealer, he was required to sign a pre-dispute arbitration clause. Which of the following type of disputes will *not* automatically be settled by arbitration, under this clause?

   A. Discrimination and sexual harassment
   B. Discrimination and unlawful dismissal
   C. Unlawful dismissal and denial of benefits
   D. Theft of intellectual property

7. Must all employees of a FINRA member meet FINRA's finger-printing requirement?

   A. Yes, there are no exceptions.
   B. No, only registered principals must be fingerprinted.
   C. No, only registered principals and sales people must be fingerprinted.
   D. No, employees with purely secretarial duties need not be fingerprinted.

Unit Exam (Continued)

8. Oliver has tried twice to pass his Series 7 Exam and failed both times. If he tries a third time and fails again, what happens?
   A. He can't be sponsored again for the exam by the same firm.
   B. He must take a comprehensive securities industry education course before he can retake the exam.
   C. He must wait 180 days to retake the exam.
   D. He must apply to retake the exam and be approved by FINRA; however, he can't apply until one year has passed.

9. In what important way is FINRA's Securities Industry Essentials (SIE) Exam different from the Series 7 Exam?
   A. The SIE applicant does not need to be sponsored by a FINRA member.
   B. The SIE test includes a series of essays.
   C. The SIE is optional; new entrants do not need to pass it to sell securities.
   D. There is no 180-day mandatory waiting period to retake the SIE after failing three times.

10. How do FINRA members notify FINRA that a registered person's employment has been terminated?
    A. By filing an amended Form U4 within 10 calendar days of termination
    B. By sending FINRA a signed, certified copy of the former employee's termination letter, within 60 days
    C. By filing Form U5 within 30 calendar days of termination
    D. This notification is only required when an employee is terminated for clear cause; the cause must be reported to FINRA.

11. Jerry, a customer, is unhappy with his current securities firm and broker. He calls another securities firm in town and asks whether that firm can suggest one of their reps to him. The firm says he should talk to Alex, who has 20 years in the business. How can Jerry check Alex's background in order to feel confident before hiring him?
    A. File a background check request with FINRA
    B. Request a copy of Alex's Form U4 from the firm
    C. Look Alex up on BrokerCheck
    D. Look Alex up on Facebook

12. Which of the following statements is true regarding investment advisers (IAs)?
    A. All IAs must register with the SEC.
    B. IAs typically charge for the transactions they execute.
    C. IAs have a fiduciary obligation toward their clients.
    D. IAs are interchangeable with broker-dealers.

13. When a new person becomes securities-licensed, what is the maximum amount of time she can procrastinate in meeting the Regulatory Element CE requirement, without becoming CE inactive?
    A. One year and 60 days
    B. Two years and 120 days
    C. Three years and 30 days
    D. It depends on whether the person is eligible for a Regulatory Element waiver.

Unit Exam (Continued)

14. How often is a registered rep required to complete the Firm Element requirement?

    A. Annually
    B. Every two years
    C. Annually in the first year and then every two years thereafter
    D. There is no specific requirement; the frequency depends on each firm's plan.

15. Clarence is a registered rep who recommends fee-based mutual fund wrap accounts to his clients. These are advisory accounts, and his role is to work under an SEC-registered investment adviser, providing advice to clients and managing the portfolios by making discretionary trades. He is not an investment adviser. Must he register and if so, with whom?

    A. No, registration is not required.
    B. Registration is only required if he has 30 or more clients.
    C. Yes, with the SEC
    D. Yes, with his state

16. Which one of the following providers of investment advice is required to register with the SEC?

    A. Fee-based financial planner, with $200 million of assets under management
    B. Portfolio manager for wealthy people, with $75 million of assets under management
    C. Family office adviser who works for one family, with $500 million in assets under management
    D. Bank that provides advice to portfolios, with $1 billion in assets under management

Unit Exam—Solutions

1. **(C)** The SEC, along with self-regulatory organizations like FINRA, can impose fines, revoke registrations, and censure firms, but they are not empowered to bring criminal charges. They must refer criminal matters to the US Department of Justice or state law enforcement.
2. **(C)** US securities law empowers the SEC as the primary regulatory body for the US securities industry. The SEC, in turn, delegates certain responsibilities to self-regulatory organizations (SROs) such as FINRA. The SROs are accountable to the SEC.
3. **(A)** The Municipal Securities Rulemaking Board (MSRB) is the self-regulatory organization (SRO) charged with regulation of the municipal securities market. It has rulemaking but not enforcement authority. It regulates municipal securities firms and professionals but not municipal bond *issuers*.
4. **(C)** Form U4 requires 10 years of employment history. Firms must independently verify the most recent three years.
5. **(D)** The U4 requires reps to list the address of their office of employment. Reps must also check a box if their Office of Employment is a private residence. It is the rep's responsibility to update his U4 with *all* changes and amended information. The amendment must be submitted within 30 days of any change.
6. **(A)** The pre-dispute arbitration clause requires both parties to submit all disputes for arbitration except for those involving discrimination and sexual harassment. In these two areas, disputes will only go to arbitration if both parties agree.
7. **(D)** Employees do not need to be fingerprinted if they are not engaged in securities sales, do not handle money or securities, and are not involved in keeping original books and records. In other words, employees with purely secretarial or administrative duties (outside those listed above) do not need fingerprints.
8. **(C)** After the third successive failed try at the same exam, the applicant must wait at least 180 days before retaking the exam. After the first two fails, there is a mandatory waiting period of 30 days before the exam can be taken again.
9. **(A)** The SIE Exam allows individuals to pass the first hurdle toward becoming a registered person without committing to entering the industry or joining a specific firm—individuals need not be sponsored by a FINRA member to take the exam.
10. **(C)** Firms are required to notify FINRA of *any* termination of a registered person by filing a Form U5 within 30 calendar days of termination.
11. **(C)** FINRA makes the information filed on Form U4 publicly available through its BrokerCheck program. Each firm must notify customers at least annually about the existence of BrokerCheck and of its website address and phone number. BrokerCheck is the most authoritative source of background check information for customers shopping for a new rep.

Unit Exam—Solutions (Continued)

12. (**C**) Investment advisers are persons or firms that provide securities-related advice in the normal course of business for a fee. Because advisers are in the process of providing advice, they have a fiduciary obligation to act in the best interest of their clients. Advisers with assets under management in excess of $100 million register with the SEC, while smaller advisers register at the state level. Unlike IA advise, the advice broker-dealers provide is incidental, so BDs instead charge customers for executing transactions.

13. (**B**) The first Regulatory Element deadline for a newly registered person is 120 days after the second anniversary of the registration date. If this deadline isn't met, the person automatically becomes CE inactive. That means her license is administratively terminated and she cannot engage in securities-related activities.

14. (**A**) Firm Element CE must be completed by a registered rep annually. Each firm must track compliance, and failure to meet the annual requirement can result in disciplinary action by the firm or FINRA. However, there is no inactive CE status for failure to complete Firm Element CE.

15. (**D**) Clarence is an investment adviser representative (IAR). Because he works under a registered investment adviser (RIA), probably his securities firm, he is not required to be an RIA himself. However, since he provides investment advice and handles fee-based accounts with discretion, he must register as an IAR, if his state requires it. All IAR registration is through the individual states, not the SEC.

16. (**A**) Large advisers and financial planners who provide investment advice for a fee are required to register with the SEC. A large adviser is defined as one with more than $100 million in assets under management. Smaller advisers generally register with their state securities commission. Banks, as well as family offices with only one family client, are exempt from SEC registration.

14. Business Conduct Rules

The duties and functions of registered representatives are subject to many industry regulations, including federal, state, and self-regulatory organization (SRO) rules. Registered representatives are responsible for performing their functions in accordance with the just and equitable principles of trade set forth in these rules, and also for staying abreast of changes in current legislation, regulation, and policy.

Registrants who violate industry rules and regulations are subject to disciplinary action, including censures, fines, suspension, or permanent loss of registration.

This chapter covers business practice rules, including insider trading, anti-money laundering, communications with the public, and other securities industry conduct regulations.

Chapter Goals

- Describe insider trading and the penalties that exist for violators.
- Know the various reports, procedures, and programs in place to prevent money laundering.
- Compare and contrast currency transaction reports and suspicious activity reports.
- Differentiate between which business conduct rules require notification and which require permission.
- Explain the requirements of the MSRB's political contribution rules.
- Learn the three categories of communications with the public under FINRA and the principal obligations for each.
- Understand the treatment of social media communications.

Key Terms

- **Insider trading**—The illegal practice of trading and benefiting from material nonpublic information
- **Financial Crimes Enforcement Network (FinCEN)**—A division of the US Treasury that is responsible for combatting money laundering and other financial crimes
- **Currency transaction report (CTR)**—Must be filed with FinCEN by a financial institution when a customer makes a cash deposit in excess of $10,000
- **Suspicious activity report (SAR)**—Must be filed with FinCEN by a financial institution upon discovery of suspicious activity, such as money laundering or other financial crimes, by a customer

- **Specially Designated Nationals (SDN) List**—A list of individuals, entities, and countries with whom US persons are prohibited from doing business due to their ties to terrorism and other financial crimes
- **Customer identification program (CIP)**—Introduced under the USA PATRIOT A, it requires broker-dealers to confirm a customer's identity promptly after they open a new account with the firm.
- **Outside business activity (OBA)**—A second job away from the broker-dealer of a registered representative, which requires prior notification to the firm
- **Private securities transaction**—Occurs when a registered representative conducts securities-related business away from their firm, which requires prior notification to the firm and, if any compensation is received, permission from their firm
- **Pay-to-play**—The prohibited practice of municipal firms and their representatives making political contributions to issuers and other persons in exchange for receiving municipal securities business
- **Retail communication**—Defined under FINRA rules as any written or electronic communication distributed to more than 25 individuals in a 30-day period and therefore requiring principal approval before first use
- **Correspondence**—Defined under FINRA rules as any written or electronic communication distributed to 25 or fewer individuals in a 30-day period; requires principal supervision, but not principal approval before first use

14.1 High Standards of Business

FINRA Rules 2010 and 2020 as well as MSRB Rules G-2 and G-17 all require firms and their representatives to conduct themselves and their activities with high and equitable standards to ensure fairness within the capital markets. These rules are paramount to the way in which broker-dealers and their employees must act within the industry, helping to protect customers against any manipulative or deceptive actions.

> ***Knopman Note:*** **A registered rep could not take their spouse out to dinner and subsequently charge it to a client or submit it as a client expense. To do so would be charging the client for an expense that is not actually a business expense, which is a violation of the standards of commercial honor.**

14.2 Insider Trading

Securities laws broadly prohibit fraudulent activities of any kind in connection with the offer, purchase, or sale of securities. These provisions are the basis for many types of disciplinary actions, including actions against **insider trading**.

An **insider** is defined as any person who has knowledge of or access to meaningful nonpublic information about a company. Examples of insiders include corporate officers, directors, and shareholders who own more than 10% of a company's outstanding shares. However, a violation of insider trading rules is not limited to just these persons; it extends to anyone who has access to material nonpublic information and purchases or sells securities based on this knowledge. For example, if a corporate insider tips a friend about nonpublic information that is likely to have an effect on the company's share price, the friend is also in violation if a trade is made on the basis of this information. Both the **tipper** and the **tippee** have potential liability.

> ***Knopman Note:*** **Insider trading is the illegal practice of trading securities based on material, non-public information.**

The SEC will pay a reward to those who provide information relating to potential insider trading violations. In addition, any investor who is financially impacted by insider trading activities is permitted to bring suit against that investor to recover the cost of his investment.

The **misappropriation theory** broadens liability for insider trading violations. It states that persons who misappropriate (steal) information from their employers and trade on that information in any stock, not just their employers' stock, are guilty of insider trading violations. An example of this situation is a journalist who is aware of material nonpublic information about a potential takeover because of an investigation they are conducting. Trading on this information is illegal.

14.2.1 Duty of Trust

Another scenario in which individuals may have liability for insider trading is in connection with a breach of a **duty of trust**. Under SEC Rule 10b5-2, a duty of trust or confidence applies when two people have a history of sharing sensitive information in confidence and the recipient of the information should reasonably understand that the information should be kept confidential. This allows an individual to avoid liability for insider trading if the recipient **should have known** that nonpublic information was being shared.

For example, an individual who steals a deal file from a colleague's desk and trades on the information would be expected to know that the information was nonpublic, even though no one explicitly told him so.

14.2.2 Penalties for Insider Trading

Penalties for insider trading violations originate in the '33 Act and '34 Act under anti-fraud provisions against "manipulative or deceptive" devices.

Legislation has intensified these penalties over the years, particularly the **Insider Trading and Securities Fraud Enforcement Act of 1988**. The '34 Act provides for both civil and criminal penalties for insider trading and securities fraud.

14.2.2.1 Civil Penalties

Civil penalties are limited to a dollar amount equal to three times the profit gained or loss avoided by illegal insider trades. This is also referred to as **treble damages**. Supervisors who should have known about or could have prevented the illegal activity can also be subject to treble damages.

14.2.2.2 Criminal Penalties

Criminal penalties for willful violations are limited to $5 million in fines and up to 20 years in prison. The cap on fines increases to $25 million for corporations.

> ***Knopman Note:* An individual who commits insider trading is subject to both civil and criminal penalties.**

14.2.3 Policies and Procedures for Information Barriers

The Insider Trading Act also requires firms to impose supervisory procedures to prevent the misuse of material, nonpublic information by employee and proprietary accounts. To comply with these requirements, firms must establish **information barriers** that prevent the free flow of material, nonpublic information. In addition to written procedures, physical separation is required between departments that regularly receive inside information and a firm's trading desk.

Firms that conduct investment banking, research, or arbitrage activities must maintain some form of restricted and watch lists. Typically, a **restricted list** is a list of securities in which proprietary, employee, and certain solicited customer transactions are restricted or prohibited. A **watch list** is a current list of securities that generally do not carry trading restrictions, but the trading of which is subject to close scrutiny by the firm's compliance department. The restricted list is distributed periodically throughout the broker-dealer to make employees aware of those securities that the firm is restricted or prohibited from recommending and/or trading. Both lists should include:

- The date and time the security was added to or deleted from the list, and
- The name of a contact person who could answer questions about the addition or deletion

14.2.3.1 Proprietary and Employee Trading Reviews

Firms are required to establish procedures to review transactions that may constitute insider trading. These procedures must provide for review of securities transactions for:

- The firm
- Employees of the firm, and
- Family members of the firm's employees

For any suspicious transactions, the firm must promptly conduct an internal investigation to determine whether there were violations.

> ***Knopman Note:* One thing that a firm or employee can do while in possession of nonpublic information is accept an unsolicited order. For example, if an equity trader learns of an imminent takeover of ABC Corp, the trader can accept an unsolicited order from a customer to buy ABC Corp common stock.**

14.3 Anti-Money Laundering Regulation

Money laundering is the process of making illicit funds obtained from criminal activity appear legal.

The US Treasury Department identifies three phases of money laundering:

- **Placement** is the process of depositing illegal funds into financial institutions. This is the part of the process that is most easily detected.
- **Layering** is when money is transferred through complex financial transactions (such as wire transfers) to separate the funds from their illegal origins.
- Through **integration**, the illegal funds are mixed with legitimate funds.

> ***Knopman Note:*** **Be sure to know the three phases of money laundering defined above.**

FINRA and MSRB rules, as well as federal laws, subject financial institutions to protect against money laundering and other financial crimes. The **Bank Secrecy Act (BSA)**, initially adopted in 1970, established the basic framework for **anti-money laundering (AML) regulations**. Among other things, it authorizes the US Treasury to issue regulations requiring financial firms to keep records and file reports of certain financial transactions. The **Financial Crimes Enforcement Network (FinCEN)**, a bureau within the Treasury Department, is the administrator of the BSA.

> ***Knopman Note:*** **Like FinCEN, the Internal Revenue Service (IRS) and Comptroller of the Currency (OCC) are bureaus of the Treasury Department that help to prevent money laundering.**

FinCEN requires the submission of a number of documents by broker-dealers and other financial institutions in its efforts to prevent money laundering.

14.3.1 Currency Transaction Reports (CTRs)

A **currency transaction report (CTR)** must be filed whenever a financial institution receives a cash deposit in excess of $10,000 in a single business day from a single customer, whether it be in one transaction or in a combination of transactions. CTRs are filed with FinCEN within 15 days of the cash deposit(s). Separate regulations also require that businesses report cash payments of more than $10,000 to the IRS.

> ***Knopman Note:*** **A CTR must be filed with FinCEN whenever a financial institution receives a cash deposit in excess of $10,000 in a single business day from a customer. This can include a deposit of cash, a traveler's check, a cashier's check, money order, or a combination of the aforementioned which exceeds the limit. For example, if a customer deposits a $3,000 money order and $8,000 traveler's check in a single day, a CTR must be filed. Note that a personal check for more than $10,000 would not require a CTR, as it would originate from a bank.**

14.3.2 Suspicious Activity Reports (SARs)

Suspicious activity reports (SARs) must be filed by broker-dealers if customers' actions indicate that they may be engaging in money laundering activities or otherwise violating federal laws. The following are examples of suspicious activities:

- A request to shred account information
- Frequent wire transfers between seemingly unrelated accounts
- Indifference to churning or higher-than-normal fees
- Deposits just under the $10,000 limit that would trigger a CTR filing (e.g., a $9,900 deposit)

> ***Knopman Note:*** **Insufficient or questionable account information, avoidance of recordkeeping requirements, unanticipated changes in transaction patterns, and inconsistent business activity are all red flags for money laundering activity.**

SARs are filed with FinCEN within 30 days of the discovery of the suspicious activity. A registered rep is prohibited from disclosing to a customer that they have filed a SAR for activities by the customer.

> ***Knopman Note:*** **If representatives come into contact with activities that require reporting, they should inform their supervisors, who will then be responsible for taking the appropriate action.**

14.3.3 The USA PATRIOT Act

The **USA PATRIOT Act**, enacted by Congress in 2001 in response to the September 11, 2001, terrorist attacks, amended and strengthened the BSA. It imposed a number of new AML obligations directly on broker-dealers, including:

- The development of an **AML compliance program** and a **customer identification program (CIP)**
- Prohibitions on transactions with persons on the **Specially Designated Nationals (SDN) list** compiled by the **Office of Foreign Assets Control (OFAC)**, which is part of the US Treasury Department. Any transactions with someone on this list must be blocked, and the attempt must be reported to OFAC within 10 days.
- Mandatory information-sharing in response to requests by federal law enforcement

Pop Quiz 1 *(Chapter 14)*

Fill in the blanks with the correct information about currency transaction reports (CTRs), suspicious activity reports (SARs), and the Office of Foreign Asset Control (OFAC).

1. CTRs must be filed with ______________ within ______________ days of a cash deposit exceeding ______________.
2. SARs must be filed with ______________ within ______________ days of the discovery of ______________.
3. If a firm learns that a person is on the list of terrorist organizations, this must be reported to ______________ within ______________ business days.

Answers to chapter 14 pop quizzes begin on page 452

14.3.3.1 AML Compliance Programs

The AML programs required by the USA PATRIOT Act must be in writing and include:

- Policies, procedures, and internal controls reasonably designed to achieve compliance with the BSA and its rules
- Policies and procedures that can be reasonably expected to detect and cause the reporting of suspicious transactions
- Ongoing AML employee training, which generally requires annual training for persons designated by the firm

The PATRIOT Act requires the designation of an AML compliance officer to implement and monitor the day-to-day operations and internal controls of the program. This person's name and contact information must be forwarded to FINRA, and notification is required within 30 days of any change. This individual is *not* required to be a registered representative.

Firms are required to undergo an independent test of their AML programs, typically annually. This compliance testing must be conducted by an employee who does not perform the functions being tested, or by a qualified outside party with knowledge of the requirements.

FINRA rules require that a firm's AML program, and any subsequent changes, be approved in writing by a member of senior management.

> ***Knopman Note*: The annual audit and testing of a firm's AML compliance program must be completed by an independent party, which could be someone within or outside of the firm.**

14.3.3.2 Customer Identification Programs

The USA PATRIOT Act requires broker-dealers to establish written **customer identification programs (CIPs)**. These programs aim to:

- Obtain identifying information from each customer prior to account opening
- Verify the identity of each customer within a reasonable time before or after account opening

- Create and maintain a record of information relating to identity verification
- Determine whether a customer appears on any US Treasury list of known or suspected terrorist organizations
- Provide each customer with adequate notice, prior to account opening, that information will be requested to verify the customer's identity

***Knopman Note:* The customer identification program requires financial institutions to verify the identity of each customer who opens an account.**

***Knopman Note:* If a registered representative learns that a person or company on the OFAC list of terrorist organizations is involved in a transaction the rep is facilitating, the rep is required to report this information to the appropriate principal. The firm must then block the transaction and report the issue to OFAC within 10 business days.**

Progress Check

1. Insider trading is defined as the practice of trading and benefiting from what type of information?
   A. False and misleading
   B. Rumors
   C. Material nonpublic
   D. Secret or market-sensitive

2. What are the maximum civil and criminal penalties for insider trading convictions?
   A. Civil: double the profit gained or loss avoided; criminal: does not apply
   B. Civil: does not apply; criminal: $5 million fine and 10 years in jail
   C. Civil: triple the profit gained or loss avoided; criminal: $5 million fine and 20 years in jail
   D. Civil: triple the profit gained or loss avoided; criminal: up to life imprisonment

3. To prevent insider trading, ABC Securities publishes a list of securities in which proprietary and employee purchases are prohibited. The list is called:
   A. a blacklist.
   B. a restricted list.
   C. a watch list.
   D. an internally sensitive securities (ISS) list.

4. A money launderer makes a series of many small bank deposits, withdrawals, and wire transfers to move illegal funds into safe havens while covering up the original source of the funds. This practice is called:
   A. layering.
   B. placement.
   C. white-washing.
   D. masking.

5. If a customer makes a large cash deposit into a brokerage account, when must the brokerage firm file a currency transaction report (CTR) and with whom?
   A. Within five business days of the deposit; filed with the IRS
   B. Within 15 days of the deposit; filed with the IRS
   C. Within five business days of the deposit; filed with FinCEN
   D. Within 15 days of the deposit; filed with FinCEN

6. A customer opens a brokerage account and makes the following series of deposits on consecutive days: $9,900, $9,925, $9,956, $9,910. What should the firm do?
   A. File a cash transaction report (CTR)
   B. File a suspicious activity report (SAR)
   C. Immediately suspend the account and notify FINRA
   D. Immediately close the account and notify the customer

7. Nate is a registered rep whose client Peter has recently requested a series of wire transfers to foreign bank accounts. Nate decides he should alert his compliance department to this activity. Two days later, compliance says it has closed the account and filed a SAR. Nate conveys all this information to the client. Has he acted correctly?
   A. Yes, because he detected the problem and alerted compliance
   B. No, he should not have told the client a SAR was filed
   C. No, he should not have told the client the account was closed
   D. No, he should not have communicated with the client at all

Progress Check (Continued)

8. Which one of the following is *not* a required component of a securities firm's anti-money laundering (AML) compliance program?

   A. Distribution of literature designed to educate clients about the firm's AML activities

   B. Ongoing AML employee training

   C. Policies designed to detect and report suspicious transactions

   D. Independent testing of the AML program

Progress Check—Solutions

1. (**C**) For a case for insider trading to be made, the information used to trade or benefit in the market must be both material (meaningful and market-moving) and nonpublic—not yet publicly known or widely released. If the information meets these tests, it may not matter much who was the source, how it was obtained, or whether or not it is true.
2. (**C**) The civil penalty is up to treble damages—three times the profit gained or loss avoided. By statute, the criminal penalty is a maximum of 20 years in prison.
3. (**B**) Broker-dealers must take specific compliance actions to deter insider trading. These actions include setting up 1) information barriers to prevent dissemination of material, nonpublic information; 2) watch lists to designate specific securities for compliance scrutiny; and 3) restricted lists. When securities are put on restricted lists, they are subject to restrictions or prohibitions for purposes of proprietary, employee, and/or solicited customer transactions.
4. (**A**) Money launderers are notorious for layering the illegal cash they receive by routing it through mainstream financial channels and accounts, often in amounts just below reporting limits. Anti-money laundering regulations are designed to detect illegal layering activity by *knowing the customer* and filing currency transaction reports (CTRs) and suspicious activity reports (SARs).
5. (**D**) CTRs must be filed within 15 days of a cash deposit in excess of $10,000 by a single customer in a single day. They are filed with the Financial Crimes Enforcement Network (FinCEN), a bureau of the US Treasury.
6. (**B**) None of these cash deposits are above the $10,000 daily limit that triggers a cash transaction report (CTR). However, this looks suspiciously like a textbook case of layering done to avoid anti-money laundering reporting rules. A suspicious activity report (SAR) should be filed with FinCEN within 30 days of the activity being discovered. The firm's internal systems should be designed to discover the layering pattern by the third or fourth deposit, if not sooner. Reps should also be vigilant.
7. (**B**) Filing a suspicious activity report (SAR) is not proof of guilt. It sets in motion procedures designed to detect and potentially prosecute money laundering and related crimes. Nate is allowed to tell the client the account has been closed. However, he is prohibited from telling the client a SAR has been filed.
8. (**A**) The main required components are: employee training, SAR policies and procedures, independent testing, written AML documentation approved by a senior manager, and designation of an AML compliance officer. Distribution of AML literature to clients is optional.

14.4 Other Business Conduct Rules

Firms and their employees must adhere to a number of important conduct rules. These procedures, and all of the rules created, interpreted, and enforced by securities industry regulators, are critical to the primary objective of investor protection and fair dealing.

> ***Knopman Note:*** **To ensure that a firm's supervisory procedures and all FINRA rules are being adhered to, all registered employees of a firm must attend an annual compliance meeting conducted by the firm's chief compliance officer.**

14.4.1 Transactions with Other Members

FINRA Rule 3210 establishes requirements that must be followed when an associated person opens or maintains a trading account with another broker-dealer. The concern is that these persons may engage in improper trading practices away from the supervision of their firms.

The rule requires that the registered rep that opens an account with another firm:

- Obtain prior written consent from their employer before opening an account, and
- Notify the opening firm of their association with the employing member prior to opening the account

Example

Matthew is a registered representative employed at Firm XYZ. He wants to open an outside brokerage account at Firm ABC. To do so, he must receive permission of Firm XYZ and let Firm ABC know of his employment status with XYZ prior to account opening.

Additionally, prior written consent is also required for the accounts of immediate family members, including spouses and children. However, this requirement is waived if the associated person can demonstrate that no financial benefit or control exists.

If a registered representative joins a new firm, to maintain securities accounts open at other financial institutions, written consent from the new employer must be obtained within 30 calendar days of association with the new firm.

Finally, the opening firm—the firm opening the account—must send duplicate copies of account statements and trade confirmations upon written request from the employer.

These rules do not apply to brokerage accounts solely containing investments in mutual funds, UITs, or variable annuities.

14.4.2 Payments to Unregistered Persons

According to FINRA Rule 2040, broker-dealers and their registered representatives are not permitted to pay or compensate unregistered persons in connection with securities transactions or business. For example, a registered representative at a brokerage firm is not permitted to pay the firm's unregistered receptionist a 2% share of commissions on business referred by the receptionist. Likewise, a firm may not rebate or reduce the fees charged to a particular client based on new business the client directs to the firm.

Registered representatives may split commissions only with other registered representatives of the same firm or those of affiliated firms.

14.4.3 Continuing Commissions

FINRA Rule 2040 allows retired registered reps to receive commissions from customers' accounts that were opened prior to their retirement. A contract between the broker-dealer and the retiring rep must explain the arrangement and prohibit the retiree from soliciting new business or servicing accounts to generate additional business. To receive these commissions, the retiring rep must *be out of* the securities industry; that is, a rep that retired but then re-joined would not be able to continue receiving these commissions.

Example

After a long and successful career as a registered rep, Ray is ready to retire. Many of his clients have purchased securities products that pay trailing commissions, fees Ray earns each year for having sold the products to his clients. To continue earning these fees, Ray must sign a contract, such as a continuing commissions letter, while registered, which will allow him and his estate to continue to receive these payments after he retires. If Ray were to re-associate with any other broker-dealer, he would lose the ability to receive these commissions.

14.4.4 Outside Business Activities (OBAs)

FINRA Rule 3270 requires that individuals employed by broker-dealers notify their firms of any business activities that are outside the scope of their relationship with the firm. This applies to any situation where the associated person may be employed by or accept compensation from any entity outside the firm.

Many associated persons fail to recognize an **outside business activity (OBA)** and inadvertently violate this rule. To put it simply, if a rep receives money for doing something away from their firm, it is likely an outside business activity that requires disclosure.

Examples of outside activities include consulting work on the side, preparing tax returns for clients for a fee, selling a product which is not a security, or something as benign as a bartending job for some additional income.

That said, compensation is not the only determiner of whether an event is reportable. For example, a registered rep starts a business and does not pay themselves a salary. This may be considered an outside business activity under this FINRA rule.

The rule does not prohibit engagement in outside business activities. It simply requires that associated persons provide their firms with written notice that they are involved in such activities. Such involvement requires a prompt update to an associated person's Form U4.

However, under this rule, notification is not required for any passive investment activity. For example, being a limited partner in a real estate deal would not require notification.

> ***Knopman Note:*** **If a registered rep of a FINRA firm has a second job selling shoes or managing an apartment building, the employing firm must be notified.**

Broker-dealers may choose to have policies that are more stringent than FINRA's. In the case of an OBA, a broker-dealer could choose to require permission. However, the exam will test knowledge of the FINRA rule.

Pop Quiz 2 *(Chapter 14)*

Match each acronym with the appropriate description.

A. SAR
B. FinCEN
C. OBA
D. CTR
E. CIP

______ A report that must be filed when a customer makes a cash deposit in excess of $10,000

______ A division of the US Treasury, responsible for anti-money laundering enforcement

______ A report that must be filed when there is suspicious activity, suggesting that a customer may be engaged in money laundering

______ A situation in which a registered person has a job or business outside the firm with which they are licensed

______ A PATRIOT Act program that requires broker-dealers to confirm a customer's identity upon opening a new account

14.4.5 Private Securities Transactions

Private securities transactions are transactions in securities that have not been approved for sale by the firm. Each broker-dealer is required to maintain an approved product list, and must perform due diligence on new products to ensure they are suitable for some customers before making them available for sale. Participating in private securities transactions is also known as **selling away**.

For example, a close friend of a rep might ask her to help raise capital for a start-up by contacting the firm's clients on evenings and weekends. This is selling away.

FINRA Rule 3280 states that an associated person may not participate in any private securities transactions without:

- Providing detailed notice of the proposed transaction, the role the person is to play, and whether or not compensation will be paid, and
- Receiving written approval from their firm to participate

If the firm does not approve a person's participation in the private securities transaction, the person cannot participate in the transaction in any manner, directly or indirectly.

If the rep is not receiving compensation for the private securities transaction, only notice, not permission, is required. However, any type of compensation, including non-cash compensation, such as deal flow, triggers the permission requirement.

If the firm approves a person's participation in a private securities transaction for compensation, the transaction must be recorded on the firm's books and records. It must be supervised as if it were part of the firm's business.

> ***Knopman Note:*** **It is important to distinguish selling away and private securities transactions from outside business activities (OBAs). Under the OBA rules, a registered representative with a second job or outside employment (e.g., holding a real estate license and buying, selling, or managing real estate) must provide notice of the full details to the firm—whether the outside employment provides compensation or not. Selling away also always requires notice, and if the rep is receiving compensation, it requires permission as well.**

14.4.6 Guarantees Against Loss

In dealing with customers in securities transactions, registered representatives are obligated to disclose all material information about a security. Representatives cannot present only the positive side of an investment and cannot offer to buy back, indemnify, or make a customer whole if an investment does not provide a positive return. FINRA Rule 2150 and MSRB Rule G-25 strictly prohibit a **guarantee against loss** in connection with any securities transaction or any customer account by a broker-dealer or representative.

This does not preclude a firm from reimbursements or awards associated with settlements or with the correction of an error. In addition, repurchase agreements and put features on securities are not considered guarantees against loss and therefore are not prohibited.

Example

Naomi just landed a new client, Terri, who has expressed some concern about losing money in the markets. Naomi suggests a conservative portfolio, but then further indicates, off the record, that if the account loses money, she will refund her fees as a means to reimburse her, in part, for any losses in the account.

This is a prohibited guarantee against loss. Naomi cannot make a promise of this nature to a client. Likewise, a promise to purchase the securities back from Terri if they decline in value would constitute a violation.

14.4.7 Gifts and Gratuities

FINRA Rule 3220 and MSRB Rule G-20 places limits on **gifts and gratuities** that are given by a firm or its associated persons to employees or representatives of other firms. The limit on these gifts is $100 per individual per year. This $100 limit is per calendar year, unless the firm calculates the year differently (e.g., fiscal year) in its written supervisory procedures.

This limit does not apply to contracts for employment or compensation for services rendered as long as there is a written agreement of employment and records are maintained for all payments and agreements of this nature.

This rule also does not apply to entertainment expenses, such as meals or sporting events, provided the registered representative attends the event and that the event is not so egregious as to create the appearance of impropriety. For example, taking a client to dinner at a local restaurant or to a local sporting event would not be a violation.

> ***Knopman Note:*** **Entertainment expenses—for events to which the registered rep attends—are not considered gifts and therefore are not subject to the $100 limit. For example, it would not be a violation for a rep to treat a customer to a sporting event where the tickets cost more than $100, provided the rep attends.**

Pop Quiz 3 *(Chapter 14)*

Check all the following gifts or gratuities that are permissible, if made by a registered rep to one person.

______ A gift of a $25 bottle of wine, once at Christmas and once on the client's birthday

______ A meal to discuss investment strategy at a nice restaurant, costing $130

______ A subscription to an investment newsletter costing $15 per month

______ A $250 roundtrip airplane ticket to New York

______ An invitation to "use my box seats at the stadium, whenever you want, whether I am there or not"

14.4.8 Sharing in Customer Accounts

FINRA Rule 2150 specifies the regulations regarding **sharing in customer accounts**. Specifically, except under certain circumstances, broker-dealers and representatives cannot share in the profits or losses, or receive compensation based on a share of profits or losses, in customers' accounts.

This activity is only permitted if:

- The associated person obtains written authorization from the firm prior to engaging in the sharing arrangement
- The associated person or broker-dealer obtains prior written authorization from the customer, and
- The sharing is in direct proportion to each person's financial contributions to such an account (e.g., if the rep contributes only 10% of the cash in the account, he can only share in 10% of the profits)

Accounts with immediate family members are not subject to the "proportionate share" stipulations. Immediate family for this rule includes parents, mother- or father-in-law, spouse, children, or any relative to whose support the associated person contributes directly or indirectly.

MSRB Rule G-25 is similar to the FINRA rule, except that it only allows registered representatives, not municipal firms themselves, to open joint investment accounts with customers.

Knopman Note: **A joint investment account between a rep and a client requires:**

1. **Permission of the firm**
2. **Permission of the customer, and**
3. **Sharing must be in proportion to each person's financial contribution to the account (except for with family members)**

14.4.9 Borrowing from or Lending to Members

FINRA Rule 3240 regulates registered reps **borrowing from and lending to customers**. Borrowing and lending activity is permitted, if the firm's procedures allow for it, in the following circumstances:

- With immediate family members, which, for this, rule includes parents, in-laws, spouses, children, grandparents, grandchildren, cousins, aunts, uncles, nieces, nephews, and any other person whom the registered person supports, directly or indirectly, to a material extent
- With financial institutions regularly engaged in this activity (i.e., banks)
- Based on a personal or business relationship outside the broker/customer relationship

A firm's procedures must address borrowing and lending activity, and if allowed, written pre-approval is required unless the loan has been made with standard commercial terms available to the general public or the borrowing or lending involves immediate family members.

Knopman Note:

Registered reps are generally prohibited from personally lending money to clients, but there are some exceptions to the rule:

No notice or permission required if	Firm permission required if
• Client is a family member, or • Client is a bank and loan is on market terms	• Loan is based on an outside business or personal relationship (i.e., the loan is not based on the brokerage account), or • Client is a registered person at the same firm

Note: It would be prohibited for a registered rep to accept a discounted rate on a loan from a bank that is a client due to their relationship with the bank. However, a rep may borrow from a bank that is not their client at a favorable rate.

14.4.10 Customer Complaints

Under FINRA Rule 4513, **customer complaints** are written statements from a customer or any person acting on behalf of a customer that allege a grievance involving the activities of an associated person or a broker-dealer in connection with a securities transaction.

All written customer complaints must be forwarded to a principal, and firms are required to keep a record of both the complaint and action taken by the firm, if any.

> ***Knopman Note:* Only written complaints, not verbal complaints, must be forwarded to a principal.**

> ***Knopman Note:* If a rep receives a written complaint from a client that the rep believes is without merit, the complaint must still be forwarded to a principal.**

14.4.10.1 Reporting of Complaints and Other Proceedings

FINRA Rule 4530 subjects firms to detailed reporting requirements based on the nature and consequences of a customer complaint. They must submit a report to FINRA by the 15th day of the month following the calendar quarter in which customer complaints have been received.

14.4.10.2 MSRB Investor Brochure

MSRB Rule G-10 requires firms that deal with municipal securities to keep investors educated about the safeguards and resources available to them. Specifically, each year firms are required to provide investors with the following items in writing:

- A statement that they are registered with the SEC and MSRB
- The website address of the MSRB, and
- A notification of the availability of an investor brochure on the MSRB's website, which describes the protections available under MSRB rules and how to file a complaint with the appropriate regulatory authority

The **investor brochure** summarizes key principles of the MSRB's customer protection rules and provides a link to the MSRB rulebook, which investors may review or download. This brochure also provides direction on how to attempt dispute resolution or initiate a formal regulatory proceeding.

Similar to FINRA rules, if the firm does receive a written complaint from a customer, the complaint must be forwarded to a supervisor. Municipal securities firms must maintain records of customer complaints for at least six years.

14.4.11 Use of Information Obtained in a Fiduciary Capacity

Securities firms and their representatives are often exposed to confidential, nonpublic information regarding the ownership of securities in the course of their business. FINRA Rule 2060 is concerned with the protection of this information.

Specifically, the rule states that when a firm acts in a fiduciary or an agency capacity for another entity, it cannot use information it learned while in this capacity for the purpose of soliciting business, or in any other situation where it could experience financial gain, without first gaining consent from the issuer. The rule applies if the firm is acting as a trustee, paying agent, or transfer agent on behalf of another client.

Example

If a bank acts as a trustee for a bond issuer, the bank cannot use any information learned about the bondholders for its personal gain, unless the issuer gives it permission to do so.

14.4.12 Conflicts of Interest

Conflicts of interest occur often in the securities industry and can result in unfair treatment to customers if they're not properly managed. FINRA and the MSRB have rules in place to prohibit manipulation or deception by requiring disclosure of conflicts. When effecting transactions with or for a customer for which a conflict exists, the broker-dealer must make verbal disclosure of the conflict prior to the trade, and written disclosure of the conflict must appear on the trade confirmation. Failure to disclose a conflict is a violation.

One example of a potential conflict defined by FINRA Rule 2269 is compensation practices that influence reps to make product recommendations to customers that do not fully align with suitability.

Example

Stanley, a registered rep, recommends a mutual fund to his customer. If the sale goes through, Stanley will receive an additional sales commission from the mutual fund. This is a conflict and must be disclosed to the customer.

Furthermore, FINRA Rule 2262, requires firms and representatives to disclose any **control relationship** to investors. A control relationship occurs when the firm selling the security is controlled by, controls, or is under common control with the issuer.

Example

Rena is a customer interested in purchasing stock of a company in the financial sector. She contacts Alan, her registered rep at Broker-Dealer ABC. Alan recommends that Rena purchase shares of ABC's stock. This is a conflict, as an ABC rep is trying to sell ABC stock to Rena. This sale is permitted but must be disclosed verbally prior to the trade and in writing on the trade confirmation.

Although FINRA rules do not require elimination of all conflicts of interest (this is not feasible), firms are required to have procedures to help them identify, mitigate, and manage conflicts so that they do not result in unethical decision-making or unfair treatment of customers.

14.4.13 Political Contributions

One particular conflict that has arisen in the past within the municipal securities industry is **pay-to-play**. This is the practice of municipal firms and their representatives making political contributions to issuers and other persons in exchange for receiving municipal underwriting and advisory business opportunities. MSRB Rule G-37 places strict restrictions on these contributions.

The entities subject to this rule are municipal firms, political action committees (PACs) controlled by a municipal securities firm, or other **municipal finance professionals (MFPs)**.

For this rule, MFPs include the following:

- Associated persons involved in sales, trading, underwriting, and research services to municipal issuers
- Associated persons who attempt to solicit municipal securities business in any capacity
- Direct supervisors of associated persons who perform these functions, and
- Executives or members of management teams of dealers or bank departments that engage in municipal securities business with issuers

> ***Knopman Note:*** **The definition of MFP does not include persons who are involved in only retail sales of municipal securities to individual customers.**

All firms are required to establish and maintain reporting requirements for political contributions to municipal issuers. All records relating to MFPs and political contributions must be maintained for six years. This rule also applies to municipal advisory firms and their employees, but for purposes of this exam, the focus is how it relates to municipal dealers and their employees.

14.4.13.1 Ban on Conducting Business

If a municipal securities firm, an MFP of the firm, or a PAC controlled by the firm makes a political contribution to an official of an issuer, the firm is prohibited from engaging in any **negotiated** municipal securities business with that issuer for a period of **two years**.

This prohibition applies to contributions made to incumbents or candidates for elective offices who are responsible for or can influence the awarding of municipal securities business. Contributions to officials who are in the position to appoint persons who can influence the awarding of municipal securities business also trigger the two-year prohibition.

There is one exception. MFPs are allowed to make contributions without triggering the ban if the following applies:

- They are entitled to vote for the candidate based on their residence or voting district, and
- The contribution does not exceed $250 per election

If the MFP either gives a contribution in excess of $250 or makes any contribution when not entitled to vote for the candidate, that would be a violation of the rule.

Knopman Note: **An MFP can give a maximum contribution of $250 per election (both primary and general) to a candidate he is eligible to vote for.**

Example

A registered representative of a municipal securities firm is entitled to vote for an official of an issuer and makes a contribution of $100. The firm may continue to engage in municipal securities business because the representative was entitled to vote and the contribution was less than $250. A contribution of $300 would have triggered the two-year ban for the firm.

This exception does not apply to a PAC controlled by the firm or the firm itself. They cannot make contributions of any amount.

14.4.13.2 Applications of Rule G-37

Many exceptions and complex situations apply to the administration of this rule. This section addresses a number of these to help provide further insight into the rule's application.

- The ban against business *does not* extend to competitive underwritings because these activities are determined based on price. Only negotiated municipal securities activities are subject.
- If a prohibited contribution has been made, and the individual who made the contribution leaves the firm, the original firm remains subject to the prohibition for the remainder of the two-year period. If the person that made the contribution works for a new municipal firm, and is defined as an MFP at that firm, the new firm is also subject to the ban on municipal securities business with that issuer.
- If an individual made a political contribution while not classified as an MFP, and then later becomes an MFP, a two-year look-back applies to contributions made by that person. Any contributions made during that two-year period that would have been prohibited subject the employing firm to the ban on municipal securities business.
- Contributions made by spouses of MFPs are not subject to the rule unless directed by the MFP.
- If a check is drawn on a joint account of the MFP, and is signed by the MFP only, the contribution is deemed to have been made in full by the MFP. If the check is drawn on a joint account and signed by two parties, including the MFP, half the contribution is deemed made by the MFP.
- If an official of a municipal issuer runs for federal office, and an MFP makes a political contribution of more than $250 per election, the rule has been violated. G-37 is not violated if MFPs make contributions to other candidates for federal office—only those associated with municipal issuers. For example, the rule applies if a state governor is running for US president, but not if an incumbent US president is running for reelection.

Knopman Note: **Contributions made by the spouses of MFPs are not subject to the $250 limit unless the contribution was directed by the MFP.**

Pop Quiz 4 *(Chapter 14)*

John is a registered rep who works on the municipal bond trading desk of ABC Securities. Check any of the following activities that will cause him to be considered a municipal finance professional (MFP).

_____ Attempting to solicit underwriting business from the superintendent of a local school board

_____ Trading municipal bonds with a municipal issuer

_____ Recommending to retail customers that they participate in municipal bonds of a local issuer

_____ Managing portfolios of municipal bonds for retail clients

_____ Helping a municipal bond issuer evaluate financing options

14.5 Communications with the Public

FINRA rules precisely detail permitted communications with investors. FINRA strictly regulates these communications to ensure that firms maintain the high and equitable standards discussed earlier and to prohibit any fraudulent or misleading information from being disseminated. This section will cover the different types of communications, along with filing and content requirements.

14.5.1 Types of Communications

FINRA Rule 2210 defines three main types of communications with the public.

1. **Retail communications** include any written or electronic communications distributed or made available to more than 25 retail investors within any 30-calendar-day period. This covers traditional print, internet, and TV ads.
2. **Correspondence** includes any written or electronic communications distributed or made available to 25 or fewer retail investors in any 30-calendar-day period.
3. **Institutional communications** include any written or electronic communications distributed or made available exclusively to institutional investors.

Knopman Note: **If a communication is made available to even one retail investor, it is not institutional. Then, the 25-investor test can be applied to determine whether it is a retail communication or correspondence.**

Example

If a communication went out to 10 retail clients and 20 institutional investors, it would be classified as a correspondence.

Purely verbal and oral communication (e.g., a conversation) is not considered a communication with the public.

Knopman Note: **It is important to know the three types of communications with the public and the principal requirements for each. These are summarized below:**

Communication Type	Definition	Principal Obligation
Retail communication	Distributed to more than 25 retail investors in a 30-calendar-day period	Approval prior to first use
Correspondence	Distributed to up to 25 retail investors and an unlimited number of institutional clients in a 30-calendar-day period	Supervision and spot-checks, but not approval before first use
Institutional communication	Distributed to only institutional investors	Supervision and spot-checks, but not approval before first use

Pop Quiz 5 *(Chapter 14)*

For each type of communication described below, indicate whether it is a retail communication, correspondence, or institutional communication.

1. A blast email message sent once to 20 clients ____________________
2. The script of a radio ad that will play on five different local stations ____________________
3. A letter sent to two pension funds ____________________
4. A memo sent to 15 retail clients and one institutional client ____________________
5. A brochure sent to hundreds of prospects, retail and institutional ____________________
6. The script of an investment webinar, sent to one retail client ____________________
7. A stack of 100 copies of a reprint of an article written by the registered rep, left in the office lobby ____________________
8. A password-protected website, where the number of people who will have the password is unknown ____________________

14.5.2 Review and Approval of Retail Communications

Unless an exception applies, all retail communications must be reviewed and approved by a registered principal prior to first use. The principal must sign and date each retail communication and ensure it is fair, balanced, and not misleading.

Firms must retain records of all retail communications, including reviews and approvals, for at least three years after final use.

***Knopman Note:* The purpose of principal review is to ensure that retail communications conform with regulatory standards and are in no way misleading.**

Specifically, retail communications cannot predict or project the performance of a security, imply that past performance forecasts future results, or include exaggerated claims.

Take note that the following activities are permitted:

1. **A hypothetical illustration of mathematical principles, as long as it does not specifically predict or project the performance of an investment or investment strategy, and**
2. **A price target, but only if contained in a research report**

14.5.3 Social Media and Other Online Communications

In response to the proliferation of interactive and social media, FINRA has covered it within its framework for communications with the public. A key regulatory distinction lies between static and interactive content online.

- **Static content** does not change very often. Examples include website copy, information posted on a Facebook wall or profile, and blog posts—anything that was not written in response to a real-time, interactive online conversation. Static content is treated as a retail communication and subject to prior principal review.
- **Interactive content** is in real-time, such as tweets, Facebook comments, or responses to comments on a blog post. It does not require prior principal review, but it is subject to supervision and spot checks. Put another way, the person responsible for tweeting must be aware of FINRA, and the firm's, content standards.

Member firms must appropriately train associated persons regarding their policies for using and supervising interactive and social media.

***Knopman Note:* Registered reps are allowed to communicate with clients through a personal email address as long as they receive prior permission from their supervisor and the firm appropriately monitors the communications.**

14.5.4 MSRB Advertising

Similar rules of fair dealing and avoiding false and misleading information apply to municipal securities advertising. However, MSRB rules regarding communications with the public do differ from FINRA's.

Under MSRB Rule G-21, a correspondence is defined as any written or electronic message distributed to less than 25 persons within a 90-day period. Examples include emails and instant messages. Firms are required to establish procedures for the review of these correspondences, but they are not required to be approved by a principal prior to first use. Take note, this is a different definition than that of FINRA's rules, which specifies a 30-day period.

Unless deemed a correspondence, any material that is published or included in any electronic or public media, or any written or electronic promotional literature made available to customers or the public, is defined as an advertisement. Examples include press releases, summaries of official statements, and newsletters. A principal must approve each advertisement in writing prior to first use. MSRB rules do not distinguish between advertisements being distributed to retail versus institutional investors.

Official statements and preliminary official statements are excluded from the definition of advertising: In addition, because issuers of municipal securities are not subject to MSRB rules, any advertisements prepared by issuers are not subject to MSRB Rule G-21. However, an advertisement produced by a firm on behalf of an issuer must comply.

Municipal securities firms must maintain records of all advertising and advertising approvals for at least four years.

> ***Knopman Note:*** **Advertising records must be maintained for three years under FINRA rules and four years under MSRB rules after final use.**

14.6 Business Continuity Plans

FINRA Rule 4370 requires broker-dealers to create and maintain written **business continuity plans** to ensure that critical business functions are continually available to those that require access regardless of the circumstances. Examples of a business disruption could include a fire at the firm's office or a force majeure.

The plan must be tailored to the size and scope of the firm's operations and ensure that the broker-dealer can continue to meet its obligations to its customers in spite of emergency circumstances or other disruptions. Back-up copies of the plan must be maintained in a secure location, and the plan must be available to FINRA staff promptly upon request.

All broker-dealers must provide written disclosure of their business continuity plans to customers at account opening as well as on their website.

> ***Knopman Note:*** **Customers must receive a summary of the firm's business continuity plan at account opening. The plan must also be on the broker-dealer's website, and customers must be mailed a summary of the plan upon request.**

14.6.1 Updating Plan Information

Business continuity plans must be updated in the event of any material change to the firm's operations, structure, business, or location. Firms must designate a member of senior management, who is also a registered principal, to conduct annual reviews of the plan to determine whether any changes are necessary.

Firms must also designate two associated persons as emergency contacts. At least one emergency contact person must be a member of senior management and a registered principal of the firm.

Emergency contact information must be reported to FINRA, and any changes to this information must be communicated promptly (within 30 days).

Pop Quiz—Solutions

Pop Quiz 1 *(Chapter 14)*

1. CTRs must be filed with **FinCEN** within **15** days of a cash deposit exceeding **$10,000 on a single business day from a customer**.
2. SARs must be filed with **FinCEN** within **30** days of the discovery of **suspicious activity**.
3. If a firm learns that a person is on the list of terrorist organizations, this must be reported to **OFAC** within **10** business days.

Pop Quiz 2 *(Chapter 14)*

__D__ A report that must be filed when a customer makes a cash deposit in excess of $10,000

__B__ A division of the US Treasury, responsible for anti-money laundering enforcement

__A__ A report that must be filed when there is suspicious activity, suggesting that a customer may be engaged in money laundering

__C__ A situation in which a registered person has a job or business outside the firm with which they are licensed

__E__ A PATRIOT Act program that requires broker-dealers to confirm a customer's identity upon opening a new account

Pop Quiz 3 *(Chapter 14)*

__X__ A gift of a $25 bottle of wine, once at Christmas and once on the client's birthday

__X__ A meal to discuss investment strategy at a nice restaurant, costing $130

______ A subscription to an investment newsletter costing $15 per month

______ A $250 roundtrip airplane ticket to New York

______ An invitation to "use my box seats at the stadium, whenever you want, whether I am there or not"

Explanation: Gifts and gratuities are allowed, provided they do not exceed $100 per person in a calendar year. The $100 limit does not apply to entertainment expenses such as meals or sporting events, provided the rep attends the event and the event's cost is not egregious.

Pop Quiz—Solutions (Continued)

Pop Quiz 4 *(Chapter 14)*

X Attempting to solicit underwriting business from the superintendent of a local school board

X Trading municipal bonds with a municipal issuer

____ Recommending to retail customers that they participate in municipal bonds of a local issuer

____ Managing portfolios of municipal bonds for retail clients

X Helping a municipal bond issuer evaluate financing options

Explanation: The definition of an MFP does not include persons who are involved only in retail sales or in retail client services involving municipal bonds. Instead, a rep is considered an MFP if they engage in activities pertaining to the solicitation or underwriting of municipal issues or provide sales, trading, or research services to municipal issuers.

Pop Quiz 5 *(Chapter 14)*

1. A blast email message sent once to 20 clients **Correspondence**
2. The script of a radio ad that will play on five different local stations **Retail communication**
3. A letter sent to two pension funds **Institutional communication**
4. A memo sent to 15 retail clients and one institutional client **Correspondence**
5. A brochure sent to hundreds of prospects, retail and institutional **Retail communication**
6. The script of an investment webinar, sent to one retail client **Correspondence**
7. A stack of 100 copies of a reprint of an article written by the registered rep, left in the office lobby **Retail communication**
8. A password-protected website, where the number of people who will have the password is unknown **Retail communication**

Explanation: Retail communications include any written or electronic communication distributed or made available to more than 25 retail investors within any 30-calendar-day period. If the number of investors who will access it is unknown (as in the radio ad script, reprints, and website examples above), it is classified as a retail communication.

All other written or electronic communication is correspondence, unless it is distributed or made available exclusively to institutions, in which case it is institutional communication.

Unit Exam

1. Calvin has just opened a brokerage account for a nice retired couple that has lived in his community for 40 years. They are well known to everyone. Must he obtain PATRIOT Act customer identification information from them, to prove their identities and if so, by when?

   A. Yes, before opening the account
   B. Yes, within 10 days of opening the account
   C. Yes, within a reasonable time of opening the account, but before the first trade
   D. No, because they are well known in the community

2. What is the role of the Specially Designated Nationals List?

   A. Permits searches of suspicious activity reports
   B. Helps firms identify and report suspected terrorists and terrorist organizations
   C. Allows firms to determine whether clients have a criminal conviction or arrests for money-laundering activity
   D. Allows firms to avoid hiring employees who have committed anti-money laundering infractions in the past

3. Oscar is a registered rep with ABC Securities. His wife, June, wants to open a brokerage account with Rapid Fire Brokers, an online brokerage firm, to trade stocks. Can June's account be opened and under what circumstances?

   A. This is not allowed, due to potential conflicts of interest.
   B. This is allowed with FINRA's prior written approval.
   C. This is allowed with ABC's prior written approval and Rapid Fire's knowledge of Oscar's employer.
   D. This is allowed provided that Oscar notify his employer of the account's existence.

4. With whom can a registered representative split a commission without committing a violation of a FINRA rule?

   A. Only another securities-licensed person
   B. Only an attorney, CPA, or certified financial planner
   C. Only a registered investment adviser (RIA), subject to a written contract
   D. Any person who has performed work for compensation commensurate with the commission paid

5. Frank has box seats to see the local pro football team, and they cost $200 each. An insurance agent has just referred several new clients to Frank and performed work to help Frank advise these clients. In return, Frank gives the agent four box seats. When Frank is questioned about this by his compliance officer, he says he is just rewarding the agent for work well done. Has he committed a violation?

   A. Yes, if the insurance agent is not securities-licensed
   B. Yes, because finder's fees are never allowed
   C. Not if the price of the tickets does not exceed the value of work performed by the agent
   D. No, because the value of the tickets does not exceed $1,000

6. Clem wants to retire from his job as a registered rep with ABC Securities and still receive continuing commissions on accounts of his clients. For him to make this arrangement work, which of the following is true?

   A. He must stay in the securities industry part-time with another firm.
   B. He must have a written contract with his employer prior to retirement.
   C. He must help his old firm in servicing the accounts of his old clients.
   D. He must help his old firm in opening new accounts.

Unit Exam (Continued)

7. Margaret is a registered rep who also serves as a director of a nonprofit charitable organization. The organization pays its directors a stipend of $150 per board meeting to reimburse them for their time and travel. However, Margaret always donates this back to the charity. What must she do?

   A. Document the charitable gift
   B. Report the total amount of money she receives to FINRA
   C. Notify her employer of an outside business activity
   D. Nothing because she is not personally benefiting from her work on behalf of a nonprofit organization

8. Stewart, a registered rep, is planning a client appreciation event. He wants to give each client who attends a small gift to take home. This is the only time in the year he gives gifts to clients. What type of gift is he allowed to give to each client?

   A. No gifts to clients are allowed.
   B. Gifts of services are allowed, such as meals or movie tickets; gifts of cash or merchandise are not allowed.
   C. Any gift, as long as it is not worth more than $100
   D. Any gift that is in good taste and is not egregiously expensive

9. Kevin is a registered rep who has a passionate interest in cryptocurrencies and related stocks. One of his clients shares this interest. The client, who is not a member of Kevin's family, suggests that they open a joint brokerage account, so they can put their ideas about cryptocurrencies into action by buying cryptocurrency stocks. What is required if they are to do this legally?

   A. They must agree to split profits and losses 50–50.
   B. They must agree to split profits and losses in proportion to each person's financial contributions.
   C. They must not invest on margin.
   D. They may not invest more than $10,000 in this account.

10. Paul, a registered rep, wants to share a brokerage account with his 25-year-old daughter so he can teach her about investing. What written permissions are needed before this account can be opened?

    A. Only the firm's
    B. Only the daughter's
    C. Both the firm's and the daughter's
    D. None

11. Morgan is a registered rep who plays in a Tuesday night poker game with his friends. After one game, he is short of cash so he borrows $400 from a friend, who is a customer but not a family member. Is this allowed and if so, how?

    A. Yes, and there are no requirements because the loan is purely personal in nature
    B. Yes, provided the loan is pre-approved by the firm
    C. Yes, provided a formal loan agreement and note are executed on arm's-length terms
    D. No, because loans are never allowed for gambling debts

Unit Exam (Continued)

12. Tony, a registered rep, receives a letter from a client in which the client says he is upset because a trade was not executed at the stated limit order price. Tony checks and finds that it was executed at the correct limit price. Must he forward this letter to a registered principal as a customer complaint?
    - A. No, because the client didn't lose any money
    - B. No, because the claim is without merit
    - C. No, because it can best be handled by talking to the client in person
    - D. Yes, because it is a written grievance

13. Joel, a registered rep, sends a flyer promoting a mutual fund group to all of his clients, about 90 in total. Of these, five are institutional clients. Is this considered communication with the public and if so, what kind?
    - A. No, because it only discusses mutual funds
    - B. Yes, it is correspondence.
    - C. Yes, it is retail communication.
    - D. Yes, it is institutional communication.

14. John is an MFP living in Albany. If he contributes $250 to an individual's primary campaign for Albany mayor, which of the following will be true?
    - A. Because he has already contributed $250, he cannot make any additional contributions.
    - B. His firm cannot do any competitive underwriting business with Albany for the next two years.
    - C. His firm cannot do any underwriting business with Albany for the next two years.
    - D. He is still eligible to contribute $250 to the general election.

15. Which type of communications with the public always requires the approval of a registered principal of the firm, prior to first use?
    - A. Retail communications
    - B. Institutional communications
    - C. Interactive content
    - D. Correspondence

16. Who must be designated as an emergency contact of a broker-dealer in the firm's business continuity plan?
    - A. One member of senior management
    - B. One registered principal
    - C. Two people, one of whom is a member of senior management and a registered principal
    - D. All senior managers designated as mission-critical in the plan

Unit Exam—Solutions

1. (**A**) Each broker-dealer's PATRIOT Act customer identification program (CIP) must be designed to obtain identifying information from *each* customer prior to account opening. There are no exceptions. Firms must also verify customers' identities within a reasonable time before or after account opening.

2. (**B**) The Specially Designated Nationals List is maintained and published by the Office of Foreign Assets Control (OFAC), which is a unit of the US Treasury that administers and enforces economic and trade sanctions against specified foreign countries and terrorist regimes. Any transaction with someone on this list must be blocked and reported to OFAC within 10 business days.

3. (**C**) When a rep or his immediate family member wishes to open an account at another brokerage firm (not the employer), two things generally must happen. The employer firm must give prior written approval and the account-opening firm must know about the rep's employer, so it can send the employer duplicate copies of confirmations.

4. (**A**) FINRA prohibits payments to unregistered persons. Neither a firm nor a rep can pay another person in connection with securities business, unless that person is securities-licensed. This prohibition also includes rebates or fee reductions to particular clients and finder's fees for new business.

5. (**A**) Registered reps are only allowed to split cases and commissions/fees with other licensed persons. FINRA's rule against payments to unregistered persons prohibits any type of compensation, direct or indirect. Frank can't argue that he is splitting his earnings with the agent unless the agent is licensed. Also, he can't argue that this is a gift or gratuity (for no value received) because FINRA prohibits reps from giving gifts or gratuities above $100 in value. Giving four tickets worth $200 each is egregiously expensive.

6. (**B**) Retiring representatives may continue to participate in continuing commissions provided that they have a written contract with their employer prior to retirement. They must leave the securities industry and agree not to solicit new business, open new accounts, or service accounts.

7. (**C**) Individuals employed by broker-dealers must notify their firms of any business activities that are outside the scope of their relationship with the firm—i.e., of any outside business activity (OBA). This applies to situations in which the employee accepts any compensation from an outside entity. The key to this regulation is that broker-dealers should know what their employees are doing on the outside.

8. (**C**) For either a firm or an associated person, FINRA's limit on gifts and gratuities is $100 of value per person per year. This limit does not apply to meals and sporting events, providing the registered rep attends the event and it is not egregiously expensive.

Unit Exam—Solutions (Continued)

9. (**B**) For an associated person to share an account with a customer, three requirements must be met: 1) prior written approval from the firm, 2) prior written approval from the client, and 3) sharing in accounts must be in proportion to each person's financial contribution.

10. (**C**) For an associated person to share an account with a customer, three requirements must be met: 1) prior written approval from the firm, 2) prior written approval from the client, and 3) sharing in accounts must be in proportion to each person's financial contribution. The third requirement does not apply to accounts shared with immediate family members, but the first two do apply.

11. (**B**) FINRA restricts registered persons from borrowing from and lending to customers. However, there are exceptions to this, such as borrowing from a bank or a family member. Another exception is borrowing based on a business or a personal relationship that is not work-related. That appears to be the case here. However, the firm's prior written approval of the loan is required under this exception.

12. (**D**) If a customer lodges a written complaint, it must be forwarded to a supervisor, even if the rep believes that he could resolve it himself. This is required even if the complaint is without merit.

13. (**C**) Retail communications include any written or electronic communications distributed or made available to more than 25 retail investors within any 30-calendar-day period. This cannot be correspondence because it is sent to more than 25 retail investors. It cannot be institutional communication unless it is sent exclusively to institutional clients.

14. (**D**) An MFP is allowed to contribute $250 for both the primary and general election to an individual he is eligible to vote for. If he exceeds that limitation, his firm will be prohibited from doing any negotiated underwriting business with that municipality for two years.

15. (**A**) Unless an exception applies, all retail communications must be reviewed and approved by a registered principal prior to first use.

16. (**C**) FINRA member firms must designate two associated persons as emergency contacts in their business continuity plans. At least one of these must be a member of senior management and a registered principal. Emergency contact information must be reported to FINRA, and any changes in it must be updated within 30 days.

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