

Module 1

Foundations in Financial Planning Study Guide



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Foundations in Financial Planning

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3 Temasek Avenue Centennial Tower #21-00 Singapore 039190
Email: admin@fpas.org.sg

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Preface

Financial planning as a profession has evolved and is beginning to take on a significant position in Singapore. The demand for comprehensive financial advice has been increasing for both individuals and businesses. Therefore, the skillset for financial planners needs to evolve too. Financial planners need to be able to develop, present, implement and review financial plans. They need to have extensive knowledge of financial management, risk management, wealth accumulation, investment planning, retirement planning and estate planning to value add their services to their clients.

However, acquiring such knowledge and developing the necessary expertise can be a time consuming and laborious process. Imagine the number of different courses, workshops, and seminars one must attend to gain a working knowledge of the various disciplines! Every day we receive tons of information from different sources that can result in information overload into our busy lifestyle.

The enormity of this task is minimised by the CFP Certification program, which is a comprehensive program designed to meet such training needs, and to prepare the student for the CFP examination.

Aims

Offered by Financial Planning Association of Singapore (FPAS), the CFP Certification program aims to:

1. Provide technical and conceptual financial information to individuals interested in helping others to establish economic goals and appropriate financial plans.
2. Provide opportunity for individuals to learn, practice, and expand their financial planning skills and related techniques.
3. Provide measurement of competence in personal financial planning for candidates qualifying with the Certified Financial Planner™ license-through a series of review questions, case studies and examinations.
4. Expose candidates to the subject matter required for the CFP examination, which is administered by the FPAS.

Course Outline

The **CFP® Certification program** consists of six modules designed to give the student a thorough understanding of the various aspects and issues of the financial planning process.

The six modules of the program are:

- Module 1: Foundations in Financial Planning
- Module 2: Risk Management and Insurance Planning
- Module 3: Tax Planning and Estate Planning
- Module 4: Investment Planning
- Module 5: Retirement Planning
- Module 6: Financial Plan Construction and Professional Responsibilities

The six modules cover all pertinent areas of financial planning and at the end of the program; the student should be ready to take the CFP® examinations administered by FPAS.

The CFP® Certification program: rules of progression

The CFP® Certification program comprises of six modules, which will lead to the following accreditations:

- a. Associate Financial Planner (AFP®) Certification and IBF Level 1 upon completing Module 1
- b. Associate Wealth Planner (AWP^{CM}) Certification and IBF Level 2 upon completing Module 1, 4 and 5
- c. Certified Financial Planner (CFP®) upon completing all 6 Modules

Module 6 can only be attempted upon successful completion of Modules 1 to 5. Click here for updated info on CFP Certification program, <https://fpas.org.sg/examination-process>.

The Textbook

The Textbook is specially written for Singapore's context. Developed by a team of academics and/or industry experts, the Textbook contains important concepts and theories pertinent to financial planning and presents information on regulatory rules and guidelines. The Textbook provides suggested approaches and solutions to financial planning for different scenarios.

There are several organisational features in the Textbook. The student should be familiar with these features to aid the learning process.

Introduction

The introduction provides an overview of the issues pertinent to the course contents. It also puts into context the place and relative importance of a particular concept/theory/issue in the financial planning process.

Please note that the terms “financial planning practitioner” and “financial planner” will be used interchangeably throughout the whole text of this Textbook.

Learning Goals

The Learning Goals illustrate the purpose of the course contents. They point out to students what they are expected to know and are the basis of the questions likely to be asked in examinations.

Mock Examination Questions

Mock Examination questions are linked to the Learning Goals. These questions serve to direct and reinforce your learning. They are not intended to represent, in rigor or format, the CFP examination administered by FPAS. The review questions will help the student practice critical skills, reinforce important concepts and terms, apply analytical and evaluative techniques to given situations. Review questions help students gauge their level of understanding of the Learning Goals. In attempting these questions, you may notice that some questions test knowledge that is not directly found in the textbook. Such questions may be tested from time to time as a very small proportion of the exam so long as the questions are deemed reasonable by the FPAS Certification Board.

Required Readings

The Financial Advisers Act (FAA) and FPAS Professional Standards and Code of Ethics are examinable topics for all modules in the AFP®/AWP^{CM}/CFP® examinations. Students are expected to be familiar with the FAA and the Standards and Code of Ethics.

Students are required to go to:

MAS' website at www.mas.gov.sg for details on the Financial Advisers Act (FAA), FPAS' website at www.fpas.org.sg for details on FPAS Professional Standards and Code of Ethics.

Visual Aids

The Textbook uses exhibits, charts, tables, articles, and figures to present information in a visual manner with the aim that they serve to further clarify concepts.

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Introduction

Financial planning is the process of developing strategies to help a person manage his or her financial affairs so that they can accumulate wealth and achieve financial security. It is not a one-time event, but rather a dynamic process that requires regular reviews of changes in personal, economic, and environmental conditions.

In Singapore, certain activities of financial planning are regulated while others, notably activities relating to tax and estate activities, are not. Financial advisory services are regulated under the Financial Advisers Act (FAA), enacted in 2001.

Financial planning - specifically personal financial planning - is growing in importance for the average Singaporean. Uncertain economic times, changing legislation, the proliferation of new financial products and the lack of time do not make it conducive for individuals to use their own resources for personal financial planning. A well-designed financial plan can help people to manage their finances effectively and, along the way, give them a greater sense of financial security.

What does financial planning involve? Many people tend to equate financial planning with investment management or buying insurance and unit trusts and neglect the other key components of a comprehensive package that are just as important for attaining financial independence. These key concerns include reducing taxes, providing adequate capital for retirement, and protecting our families through proper estate planning.

One common public misconception is that a person must have lots of money to benefit from financial planning. That is not true. In fact, financial planning can sometimes be the greatest help to someone who is just starting out and wants to build his or her financial future from the ground up.

Therefore, one of the tasks of financial planners is to educate the public on the need to plan their finances and the benefits of doing so.

To help you get started, we will introduce you to the professional world of financial planners. We will also address the nature and scope of services offered by financial planners. We will discuss who the users and the providers of financial planning services are, and what it takes to be a competent financial planner.

A client who holds the critical keys to financial planning will improve his finances, achieve his goals with confidence and enjoy financial success, freedom, and peace of mind. Planning for the financial future is a necessary condition for a successful lifestyle. Given the changing nature of our economic environment, it makes even more sense for an individual to take charge of his financial future with a greater sense of urgency.

As a financial planner, you can help people deal with various personal financial issues through proper planning. These include, but are not limited to, areas such as cash flow management, education planning, retirement planning, investment planning, risks management and insurance planning, tax planning, estate planning, and business succession planning (for business owners).

In carrying out your functions, you will be guided by the financial planning process to create a financial plan – a detailed strategy tailored to the client's specific situation to meet his or her specific goals.

The scope of work of a financial planner can be very broad. In this chapter, we will be covering all the major aspects it involves.

Learning Outcomes

1. Explain the concept of financial planning.
2. Discuss the 6-step process of financial planning.
3. Describe the data to be collected from clients before proceeding with the financial plan.
4. Identify the various financial goals and objectives of the client.
5. Discuss the concept of risk profiling.
6. Identify the ways in which financial planning can be marketed.

Chapter 1 – The Financial Planning Process

1.1 WHAT IS FINANCIAL PLANNING

The Standards of Professional Conduct of the CFP Board define financial planning as follows:

Definition

Financial planning is “the process of determining whether and how an individual can meet life goals through the proper management of financial resources. Financial planning integrates the financial planning process with the financial planning subject areas.”

Proper financial planning involves taking a holistic view of the client's financial information to meet his or her financial objectives in an efficient and disciplined manner.

It is a synchronized, continuous process that is subject to review and modification as the client's objectives, family and business circumstances and economic conditions may and can change over time. Although usually described in terms of 'stages', the financial planning process should be viewed as the coordinated, integrated, and on-going management of a client's financial concerns.

The nature of financial planning can be explained by its main characteristics:

- Financial planning is a mental activity, not a simple process but an intellectual exercise and involves critical analysis of the information gathered and forethought on the part of the financial planner.
- The planning should be goal oriented. Every plan by the financial planner should specify the goals to be attained by clients in the future and the steps necessary to reach them. A financial planner should not conduct any planning for the client unless the goals of the client are first established.
- Financial planning must be forward-looking. Planning is in keeping with the adage, "look before you leap". Thus, planning means looking ahead. It is futuristic in nature since it is performed to accomplish some objectives in future.
- Planning pervades all other activities. Financial planning for clients is the basic function of all financial planners, although the nature and scope of planning will vary among planners and at different stages of the client's life stage.
- Planning based on facts. Planning for clients is a conscious determination and projection of a course of action to be undertaken by the client for the future. It is based on objectives, facts and considered forecasts relating to the client. Thus, financial planning is not, and must not be, a guess work.
- Planning must be flexible. Financial planning should be a dynamic process capable of adjustments in accordance with the needs and requirements of the client. Thus, the financial planning process has to be accommodative to changes and cannot be rigid.

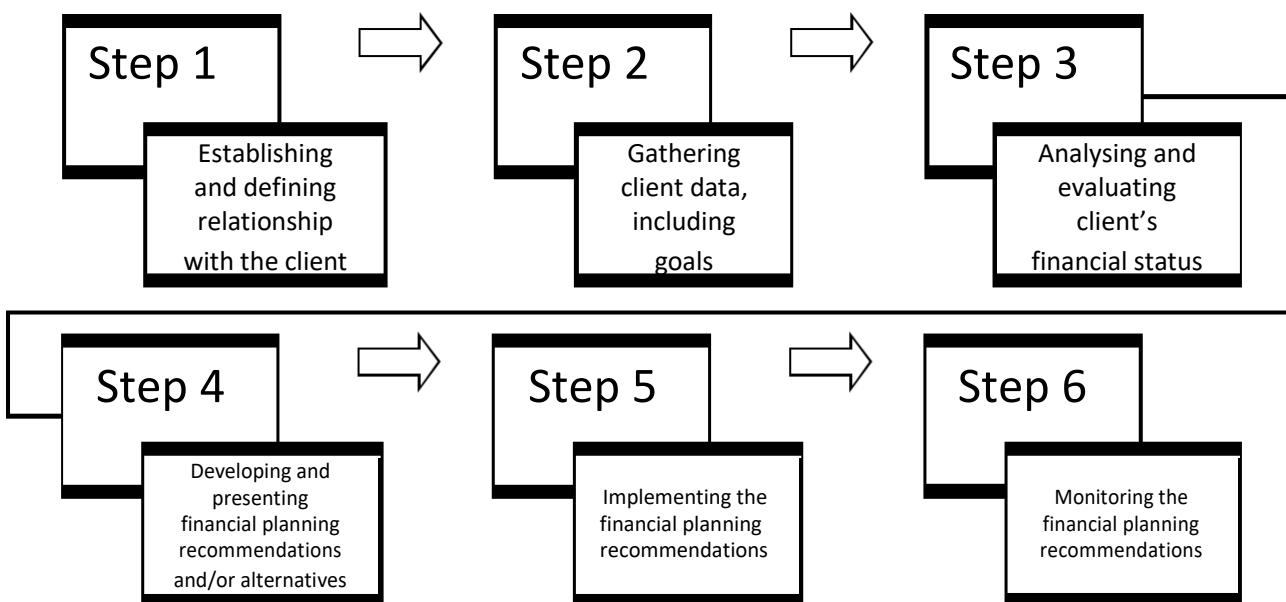
- Planning is essentially decision making. Like all other planning, financial planning is a choice activity as the process involves finding the alternatives and the selection of the best. Thus, decision making is the cardinal part of financial planning.

1.2 THE SIX-STEPS OF FINANCIAL PLANNING PROCESS

The “financial planning process” consists of six steps that help you take a big-picture look at where you are financially. Using these six steps, you can work out where you are now, what you may need in the future and what you must do to reach your goals. The process involves gathering relevant financial information, setting life goals, examining your current financial status, and coming up with a strategy or plan for how you can meet your goals given your current situation and future plans.

The six distinct steps to the financial planning process are:

1. Establish and define the relationship with the client.
2. Gathering client's information.
3. Analyse and assess the client's financial status.
4. Develop the financial planning recommendations and present them to the client.
5. Implement the client's financial planning recommendations.
6. Reviewing the client's situation.



The Financial Planning Standards Board Ltd (FPSB) has defined standards of performance relating to these 6 steps:

- Establish the level of practice expected of a financial planning professional engaged in the delivery of financial planning to a client.
- Establish norms of professional practice and allow for consistent delivery of financial planning by financial planning professionals.

- Clarify the respective roles and responsibilities of financial planning professionals and their clients in financial planning engagements; and
- Enhance the value of the financial planning process.

The FPSB's Financial Planning Practice Standards establish the level of professional practice reasonably expected of financial planning professionals during financial planning engagements, regardless of practice type, setting, location or method of compensation. FSPB expects that clients of financial planning professionals will benefit from a globally accepted set of Practice Standards for financial planning professionals.

FPSB has incorporated compliance with professional standards of practice into the global standards for CFP certification. To ensure these practice obligations are understood, FSPB Affiliates (such as FPAS) incorporate content on practice standards, and their application, into local CFP certification standards. FSPB Affiliates further adapt and enforce FSPB's practice standards in their respective territories.

The Practice Standards are not intended to prescribe the services to be provided or step-by-step procedures for providing any service. The financial planning process is an integrated one; functions may be combined and/or revisited based on the ongoing relationship between the financial planning professional and the client.

The following section elaborates on the six steps of financial planning as explained by the FSPB. More information on the practice standards can be found on the FSPB's website. The CFP board has a detailed set of standards too, but whose applicability is geared towards the USA market.

Step 1: Establish and define the relationship with the client

i. Inform the client about financial planning and the financial planning professional's competencies

The financial planning professional informs the client about the financial planning process, the services the financial planning professional offers, and the financial planning professional's competencies and experience.

Explanation

Prior to entering a financial planning engagement with the client, the financial planning professional helps the client to understand the financial planning process and the nature of financial planning engagements and provides information on the financial planning professional's qualifications. This information may include how financial planning can help the client meet objectives, a description of the financial planning professional's methodology when providing financial planning, and information about the financial planning professional's licenses, experience, and expertise.

The financial planning professional provides to the client, as required, information about the services the financial planning professional provides as well as what charges may be incurred by the client.

ii. Determine whether the financial planning professional can meet the client's needs

The financial planning professional and the client determine whether the services offered by the financial planning professional and if the planner's competencies meet the needs of the client.

The financial planning professional considers his or her skills, knowledge, and experience in providing the services requested or likely to be required by the client. The financial planning professional determines if there is any conflict(s) of interest and proceeds to disclose to the client, if there is any.

Explanation

The financial planning professional considers if he or she, or his or her staff, has the appropriate abilities, skills, and knowledge to meet the client's expectations. The financial planning professional considers if there are any personal conflicts that would affect his or her ability to work successfully with the client. The financial planning professional determines if there are any other circumstances, relationships or facts that would place the interest(s) of the financial planning professional in conflict with the client's interest(s), or the interest(s) of one client in conflict with another client. The financial planning professional discusses the confidentiality of the client's information.

iii. Define the scope of the engagement

The financial planning professional and the client agree on the services to be provided. The financial planning professional describes, in writing, the scope of the engagement before any financial planning is provided, including details about: the responsibilities of each party (including third parties); the terms of the engagement; and compensation and conflict(s) of interest of the financial planning professional. The scope of the engagement is set out in writing in a formal document signed by both parties or formally accepted by the client and includes a process for terminating the engagement.

Explanation

Mutually defining the scope of the engagement establishes realistic expectations for both the client and the financial planning professional. The financial planning professional and the client may agree that the scope of the engagement covers one, several or all the Financial Planning Components (i.e., Financial Management, Asset Management, Risk Management, Tax Planning, Retirement Planning and Estate Planning).

A written document ensures mutual understanding and agreement between the financial planning professional and the client about the terms of the financial planning engagement. In setting out the terms in an engagement letter or disclosure document, the financial planning professional includes the following:

- Specific services to be included or excluded, such as implementation and review.
- The financial planning professional's compensation arrangements with respect to the engagement, including fees to be paid by the client.
- Existing conflicts of interest, including those involving compensation arrangements with third parties, and agreement to disclose subsequent conflicts of interest if or when they occur.

- Specific parties to the engagement, including details of any legal and agency relationships which may exist.
- Assurance of protection of client confidentiality.
- Duration of the engagement.
- The client's responsibilities, including the full and timely disclosure of information.
- The financial planning professional's responsibilities.
- Provisions for terminating the client engagement; and
- Procedures for resolving the client's claims and complaints against the financial planning professional.
- Additional information that may form part of the formal written document includes:
- The potential need to use other professionals during the engagement.
- An explanation of qualifications, licenses and experience of individuals who will work with the client.
- Specific limitations on the use of client information; and
- Any other information necessary to adequately inform the client.

Circumstances may change the financial planning professional's ability to provide services to the client, or the client may decide to terminate services or transfer to another professional. The financial planning professional disengages the client or facilitates the client's transfer to another adviser in a professional manner.

Step 2: Collect the client's information

i. Identify the client's personal and financial objectives, needs and priorities

The financial planning professional and the client identify the client's personal and financial objectives, needs and priorities that are relevant to the scope of the engagement before making and/or implementing any recommendations.

Explanation

The financial planning professional strives to clearly understand the client's current situation and financial objectives, needs and priorities. The client's financial objectives state intent, provide guidance and bring structure to the financial planning engagement. The financial planning professional assists the client in clarifying and prioritizing his/her short and long-term objectives and discusses with the client the merit and feasibility of any objectives that appear to be unrealistic.

ii. Collect quantitative information and documents

The financial planning professional collects sufficient quantitative information and documents about the client relevant to the scope of the engagement before making and/or implementing any recommendations.

Explanation

The financial planning professional strives to collect complete and accurate client information and documents relevant to the scope of the engagement. The financial planning professional relies on information provided by the client and other sources to make appropriate recommendations and clearly communicates to the client the importance of collecting complete, current, and accurate information.

In return, the financial planning professional respects the confidentiality of, and safeguards, client documents. If the financial planning professional is unable to collect information necessary to develop and support recommendations, the financial planning professional discusses this with the client, explaining how these limitations impact the engagement and the financial plan. These limitations could result in a revised engagement document or in termination of the engagement.

iii. Collect qualitative information

The financial planning professional collects sufficient qualitative information about the client relevant to the scope of the engagement before making and/or implementing any recommendations.

Explanation

The financial planning professional gathers information to understand the client's values, attitudes, expectations, and financial experiences. This includes asking questions of the client and employing appropriate listening skills. The financial planning professional determines the client's level of sophistication and financial literacy. These areas are subjective, and the financial planning professional's interpretation may be limited by what the client reveals.

Step 3: Analyse and assess the client's financial status

i. Analyse the client's information

The financial planning professional analyses the client's information, subject to the scope of the engagement, to gain an understanding of the client's financial situation.

Explanation

The financial planning professional analyses the client's current situation and information and works with the client to resolve obvious omissions and/or inconsistencies in the information collected. As part of this analysis, the financial planning professional uses client-specified, mutually agreed objectives and other reasonable assumptions, for example, the client's retirement age, life expectancy, income needs, risk factors, time horizon and special needs, as well as economic assumptions such as inflation rates, tax rates and investment returns.

The financial planning professional assesses the strengths and weaknesses of the client's current financial situation and compares them to the client's objectives, needs and priorities.

Explanation

The financial planning professional considers the opportunities and constraints presented by the client's financial situation and current course(s) of action and determine the likelihood of the client reaching his or her objectives by continuing present activities or making anticipated changes. The financial planning professional may identify other issues that may impact the client's ability to achieve objectives, which he or she discusses with the client. It may be appropriate for the financial planning professional to amend the scope of the engagement and/or to obtain additional information.

Step 4: Develop the financial planning recommendations and present them to the client

i. Identify and evaluate financial planning strategies

The financial planning professional considers one or more strategies relevant to the client's current situation that could reasonably meet the client's objectives, needs and priorities.

Explanation

The financial planning professional identifies alternative strategies for achieving the client's confirmed objectives. The financial planning professional evaluates the ability of each strategy to reasonably address the client's objectives, needs and priorities. This evaluation may involve discussing with the client the importance, priority and timing of the client's objectives and needs; considering multiple assumptions; and/or conducting research or consulting with other professionals. This process may result in a single strategy, multiple strategies, or no change to the client's current course(s) of action. In considering alternative strategies, the financial planning professional considers his or her legal and/or regulatory limitations or requirements and his or her competence to address each of the client's objectives, needs and priorities. More than one strategy may meet the client's objectives, needs and priorities.

Strategies and consequences identified by the financial planning professional may differ from those of other practitioners or advisers, illustrating the subjective nature of exercising professional judgment.

ii. Develop the financial planning recommendations

The financial planning professional develops the financial planning recommendations based on the selected strategies to reasonably meet the client's confirmed objectives, needs and priorities.

Explanation

After identifying and evaluating various strategies and the client's current course(s) of action, the financial planning professional develops financial planning recommendations that can reasonably meet the client's objectives, needs and priorities. The recommendations may be an independent action or a combination of actions which may need to be implemented collectively. The recommendations may be to continue the current course(s) of action. If the financial planning professional recommends a change, it may be general or specific in nature. It may be necessary for the financial planning professional to recommend that the client modify an objective, need or priority. The recommendations developed by the financial planning professional may differ from those of other practitioners or advisers, yet each may reasonably meet the client's objectives, needs and priorities. It is important that this part of the financial planning process be sufficiently documented.

iii. Present the financial planning recommendations to the client

The financial planning professional presents the financial planning recommendations and the supporting rationale in a way that allows the client to make an informed decision.

Explanation

When presenting the financial planning recommendations, the financial planning professional helps the client understand the client's current situation, the factors and assumptions that were critical to the recommendation(s), the risks of the recommended strategy(ies), and the likely impact of the recommendation(s) on the client's ability to meet his/her objectives. The financial planning professional avoids presenting his or her opinion as fact. The financial planning professional informs the client that the financial planning recommendations will likely need to be modified as the client's personal, economic, and other conditions change.

The financial planning professional discloses to the client any conflict(s) of interest not previously disclosed and explains how such conflicts impact the financial planning recommendations. At this stage of the financial planning process, the financial planning professional can further assess whether the financial planning recommendations meet the client's expectations, whether the client is willing to act on the recommendation(s), and whether modifications are necessary.

Step 5: Implement the client's financial planning recommendations

i. Agree on implementation responsibilities

The financial planning professional and the client agree on implementation responsibilities that are consistent with the scope of the engagement, the client's acceptance of the financial planning recommendations, and the financial planning professional's ability to implement the financial planning recommendations.

Explanation

The financial planning professional gains the client's agreement on implementation of the recommendations and provides the required documentation.

The financial planning professional may change the scope of the engagement, as originally defined, based on the agreement reached with the client. The financial planning professional's responsibilities may include identifying activities necessary for implementation; determining respective responsibilities of the financial planning professional and the client; referring to, and coordinating with, other professionals; sharing client information as authorized; and selecting and securing products and/or services. If there are conflicts of interest, sources of compensation or material relationships with other professionals that have not been previously disclosed, the financial planning professional discloses these to the client. The financial planning professional explains the rationale for referrals and the qualification(s) of the referred professional(s). If a financial planning professional is engaged by the client to provide only the implementation step of the financial planning process, this is clearly defined in writing in the scope of the engagement. This scope may include the extent to which the financial planning professional relies on information, analysis or recommendations provided by others.

ii. Identify and present product(s) and service(s) for implementation

Based on the scope of the engagement, the financial planning professional identifies and presents appropriate product(s) and service(s) that are consistent with the financial planning recommendations accepted by the client.

Explanation

The financial planning professional investigates and recommends products or services that are suitable to the client's financial situation and reasonably addresses the client's objectives, needs and priorities. The financial planning professional uses professional judgment in identifying the products and services that are in the client's best interest. Professional judgment incorporates both qualitative and quantitative information. Solutions identified by the financial planning professional may differ from those of other professionals since more than one product or service may be able to meet the client's needs. The financial planning professional makes all disclosures to the client required by applicable regulations.

Recommendations regarding products or services may be presented concurrently with the financial planning strategies and recommendations.

Step 6: Review the client's situation

i. Agree on responsibilities and terms for review of the client's situation

The financial planning professional and client mutually define and agree on the terms for reviewing and re-evaluating the client's situation.

Explanation

The financial planning professional communicates to the client that financial planning is a dynamic process that may require updates due to changes in the client's personal, economic, or other conditions. The financial planning professional and the client mutually agree on, and understand, their respective roles, if any, in ensuring that the client's situation is being adequately reviewed. The financial planning professional defines and communicates to the client the nature and scope of the reviewing activities that the financial planning professional will provide. The reviewing process may require the financial planner professional to modify the original scope of engagement or initiate a new engagement.

ii. Review and re-evaluate the client's situation

When conducting a review, the financial planning professional and the client review the client's situation to assess progress toward achievement of the objectives of the financial planning recommendations, determine if the recommendations are still appropriate, and confirm any revisions mutually considered necessary.

Explanation

The review process may include: confirming that the financial planning recommendations agreed on by the client and the financial planning professional have been implemented; assessing progress toward and achievement of the objectives of the financial planning recommendations to date; re-evaluating initial or subsequent assumptions made by the financial planning professional for reasonableness; determining whether changes in the client's circumstances or objectives require adjustments to the financial plan; and mutually agreeing on any required changes. As circumstances and needs change, a financial planning professional may need to revisit earlier steps in the financial planning process.

A summary table of six steps financial planning process

Financial Planning Process	Related Practice Standard(s)
1. Establish and define the relationship with the client	1.1: Inform the client about financial planning and the financial planning professional's competencies. 1.2: Determine whether the financial planning professional can meet the client's needs. 1.3: Define the scope of the engagement.
2. Collect the client's information	2.1: Identify the client's personal and financial objectives, needs and priorities. 2.2: Collect quantitative information and documents. 2.3: Collect qualitative information
3. Analyse and asses, the client's financial status	3.1: Analyse the client's information 3.2: Assess the client's objectives, needs and priorities.
4. Develop the financial planning recommendations and present them to the client.	4.1: Identify and evaluate financial planning strategies. 4.2: Develop the financial planning recommendations. 4.3: Present the financial planning recommendations to the client.
5. Implement the client's financial planning recommendations.	5.1: Agree on implementation responsibilities. 5.2: Identify and present product(s) and service(s) for implementation.
6. Review the client's situation.	6.1: Agree on responsibilities and terms for review of the client's situation. 6.2: Review and re-evaluate the client's situation.

1.3 FINANCIAL PLANNING SUBJECT AREAS

Financial planning subject areas denotes the basic subject fields covered in the financial planning process which typically include, but are not limited to:

- Budget Planning
- Managing cash flow and assets
- Risk management and Insurance planning
- Investment planning
- Income tax and Estate planning
- Retirement planning

The six-step process describes the recommended procedure to follow in developing a comprehensive financial plan. What does a comprehensive financial plan include? Here we outline the basic conceptual pieces that make up a financial plan.

1.3.1 Managing Cash Flow and Assets and Budget Planning

This component of the financial plan is crucial if the client wishes to understand the intricacies of his financial situation. Nowadays people have increasingly complicated finances, with multiple streams of income and commitments, and several bank and trading accounts. Just as a company would make sense of its financial position through a balance sheet, a tabulation of assets and liabilities would help the client understand his or her overall financial solvency. Just as a company would make sense of its profitability through its income statement, the client would benefit from the cash flow breakdown and analysis to understand where money is flowing to, to establish the current situation.

Having completed the basic but tedious step of establishing cashflow and net assets would facilitate the drawing up of a reasonable budget. The budget is most often done as a projection of the cash flow in the upcoming year or years and would represent a goal post for each category of spending. The budget is the main tool the financial planner uses to understand the viability of different strategies to reallocate resources to meet the financial needs of the client.

1.3.2 Risk Management and Insurance Planning

Risk management and insurance planning is most often neglected in financial planning when considering its relative importance. Insurance is like the defensive line-up of a soccer team, while investments are like the offensive strikers. The defense players never get as much attention as the strikers do, and so they get overlooked. People with an ounce of common sense would laugh at you when you suggest fielding a team of only strikers, yet the same people would put all their resources into investments and neglect insurance.

A disaster can easily wipe out years of effort if there is no risk management in place. Make contingency plans for the risks and ensure that you assemble a proper defensive line-up for every financial plan.

1.3.3 Income Tax Planning

Tax planning is often a minor or negligible segment of the financial plan for Singaporeans because the tax code in Singapore is not too complicated and taxes are low as it is without the need to construct fanciful legal structures to minimize taxes payable. Nonetheless, there is still scope for tax planning strategies that the financial adviser could value-add to the client, and these can be in the areas of tax deferment through the SRS scheme, income deferment, income splitting, income timing.

Tax minimization vs Tax evasion

Tax minimization should not be confused with tax evasion, which is not only illegal and a very serious criminal offence. Tax minimization uses legal techniques and deep understanding of the tax code and concessions to undertake certain behaviour with the aim to reduce the personal tax burden while tax evasion is when someone deliberately provides inaccurate or incomplete information about their activities to reduce their tax liability or obtain undue tax credits and refund.

Examples of Income Tax Evasion

- Failing to declare all assessable income
- Claiming deductions for expenses that were not incurred or were not legally deductible
- Claiming personal relief on fictitious dependents

Examples of GST Evasion

- Claiming input tax on fictitious purchases
- Omitting output tax charged on local taxable supplies
- Claiming tourist refunds when not entitled to

1.3.4 Estate Planning

Estate planning is planning for wealth transfer and conservation. The abolishment of estate duties in 2008 does not mean that estate duty is irrelevant. For the well to do, proper estate planning is crucial in maintaining harmonious relations amongst living survivors. There are many tools that could be used to structure the wealth transfer to the intended beneficiaries.

1.3.5 Investment Planning

Investment planning is often a core and central element to every financial plan. Behind the zeal and excitement there are many hidden pitfalls. The most common pitfall is the reckless pursuit of returns regardless of risk. In the world of investments, there is no free lunch: the client needs to assess his or her investment appetite and proceed accordingly with full knowledge of the risks that every investment entails.

1.3.6 Retirement Planning

For most Singaporeans, CPF is their primary retirement plan. While that is the basic mission of the CPF Board, nowadays retirement is becoming a much more complicated affair with the introduction of new schemes like CPF LIFE and revision in rules on withdrawal age and minimum sums as well as the evolving needs of the younger generation who have high retirement aspirations. In retirement planning, the assumptions used to generate the projections are very important, and a good retirement plan will give the client a clear picture of what they can expect for their retirement given their needs and plans that have been put in place.

1.4 USERS OF FINANCIAL PLANNING SERVICES

Most people have hopes, dreams, and life goals for themselves and their family members. These might include buying a home or business, saving for their children's college education, taking a dream vacation, minimizing tax payment, and retiring in comfort. Financial planning encourages the wise management of finances that will enable an individual to achieve his dreams and goals while, at the same time, helping him to negotiate the financial barriers that inevitably crop up at every stage of life.

Managing one's personal finances is ultimately an individual's responsibility. Using the financial planning process, an individual can:

- set realistic financial and personal goals.
- assess his current financial health by examining his assets, liabilities, income, insurance, taxes, investments, and estate plan.
- develop a realistic, comprehensive plan which addresses weaknesses and builds on strengths to meet his goals.
- put his plan into action and monitor its progress; and
- stay on track to meet his goals despite changes in personal circumstances, products, markets, and tax laws.

Specific events or needs often trigger the desire for professional financial planning advice. These can be:

- ensuring that money will last during retirement or rolling over a retirement plan.
- handling the inheritance of a large sum of money or some other unexpected financial windfall.
- preparing for marriage or divorce.
- planning for the birth or adoption of a child.
- facing a financial crisis resulting from a serious illness, job lay-off or natural disaster.
- caring for aged parents or a disabled child.
- coping financially with the death of a spouse or close family member.
- funding education; and
- buying, selling, or passing on a business.

Clients of financial planners can be broadly categorized according to age groups and occupation type.

Broad Client Categories by Age Group

Broad category	Age Group	Characteristics
Young adult	18-25	Whether employed or not, young adults are just starting to accumulate assets. Often this means going into debt. They may also be looking for some regular investment commitment.
Young family	25-35	Often burdened with debt, primarily a housing loan; both partners may be employed, or one partner may stay home with young children.
Mature family	35-45	Children are approaching the end of their education or have become relatively independent. Debts such as housing loan should be substantially reduced and concern for security in retirement is starting to be raised.
Empty nesters	45-55	Children usually left home or attending tertiary education. Level of income increases. Retirement savings, debt reduction, asset accumulation and risk management would be important at this stage.
Pre-Retiree/ Retiree	55-65	These people are clearly focused on retirement or their retrenchment package. Married or single, with no dependent children and usually no debts.

Broad Client Categories by Occupation Type

Broad category	Age Group	Characteristics
Self-employed	-	Perhaps a trade person or consultant earning a moderate income.
High Income Earner	-	Either employed or self-employed. Usually, a professional but not always.

1.5 PROVIDERS OF FINANCIAL PLANNING SERVICES

Historically, there were distinct divisions within the financial services industry, with different institutions offering different services. Individuals went to banks to save their money or to get a loan. They bought stocks and bonds from a broker. They purchased insurance from an insurance agent and unit trusts from a unit trust management company's sales representative. Soon, however, they started to look for more holistic, less product-specific advice from the traditional financial service providers. They began to ask questions pertaining to how they should plan for their retirement or their children's education. They wanted to know how a decision regarding one aspect of their financial affairs might affect another.

Unfortunately, in many instances, people confused transaction-specific advice with holistic financial planning. To a great extent, many consumers are still unsure about this even today.

Recognizing the escalating demand for more holistic services and advice, industry players seize the opportunity to expand beyond their original turf. Most of them now offer a plethora of products and services that has blurred the traditional scopes of different service providers such as a banker distributing a life insurance product alongside with a mortgage or a financial advisor representative referring a mortgage loan to a bank after reviewing the protection needs of a client who is considering buying another investment property.

Today, financial service providers or intermediaries wear many hats: they can be salespersons or advisors or, in many cases, a mix of the two. While this can be convenient and efficient at times, it can also lead to some confusion, especially when people looking for expert advice have trouble discerning who is best qualified to offer the kind of services they need. Even the financial service providers themselves sometimes lack the necessary expertise to offer the comprehensive assistance that their clients expect.

With a higher level of education and internet penetration, consumers are more aware of the various roles that a financial planner may play and become more diligent in understanding the services they are buying. Moreover, while many planners do clarify the distinctions between what they are and are not qualified to do, some do not.

There are many designations that distinguish the various qualifications of a professional. The CFP® designation is one of the highest standards in Financial Planning both in Singapore and globally.

Many CFP® professionals also hold other additional designations and provide services extending beyond financial planning to include wills and trusts. In addition, many CFP® practitioners are also registered as investment advisors or hold professional insurance or securities licenses that allow them to buy and sell products.

Today, in Singapore, the financial planning profession is firmly regulated to ensure that consumers are protected and the associations to which most planners belong provide sound leadership and guidance for members.

Financial Planning Services		
Accountants	Bankers	Unit Trust Consultants
Financial Planners		Estate Planners
Insurance Advisers	Solicitors	Stockbrokers
	Investment Advisers	Real Estate Brokers

Here are some of the professionals who offer services related to financial planning:

- Financial Planners

Besides being specialists in financial planning, many financial planners with CFP® or other recognized designations also offer services related to risk management, business planning and protection, retirement planning and investment advice. Their clients comprise individuals, families, and business entities. Professional financial planners can provide a full range of financial advisory and implementation services. Financial planners are also known by the title ‘financial adviser’ in some countries, although these two terms are technically not synonymous, and their roles have some functional differences.

- Estate Planners

Estate planners provide advice on estate distribution and other estate planning issues and formulate strategies for managing the assets of a client, which are instituted at the time of the client’s death. While solicitors, accountants, insurance agents or bankers may all provide estate-planning services, there are those who specialize in offering services for the preparation of wills, trusts and powers of attorney.

- Accountants

The traditional services provided by accountants are issuance of reports on corporate and individual financial statements, consulting, preparation of tax returns and the provision of tax-related advice. Many accountants have broadened their activities in recent years to computer systems analysis, management advisory services, corporate and individual tax planning, and other areas of financial planning, such as investment planning.

- Bankers

Banks generally offer services related to savings and current accounts, mortgages, credit cards and other financing facilities. In recent years, distributing unit trusts, insurance products and other investment products has become the primary job scope of a personal banker or relationship manager.

- **Solicitors**

A relatively small percentage of lawyers provide financial planning services, generally specializing in estate and tax planning. In the context of financial planning, a planner may ask a lawyer to provide specific legal advice to a client, particularly in the areas of taxation and estate planning. A lawyer may also be called upon to prepare the legal documents necessary to implement recommendations in areas such as wills, trust documents and business ownership planning.

- **Real Estate Brokers**

A real estate broker provides services relating to the purchase or sale of property, in return for a commission. Real estate brokers, through their contacts with banks, may also assist their clients to secure financing for their real estate purchase.

- **Insurance Advisors**

Insurance advisors sell life, health, property and casualty or other insurance products. Financial planners may identify and advise on insurance needs but can only sell insurance products if they are also licensed as insurance agents.

- **Investment Advisors**

Financial planners often advise people on securities-based investments, and some are also registered as investment advisors. In Singapore, anyone who is renumerated to provide advice on securities must be licensed as an appointed representative with the MAS.

- **Stockbrokers**

A stockbroker is affiliated with a stock exchange member firm and recommends to clients which securities to buy and sell and earns a commission on all transactions. Many stock-broking firms provide global financial management and advisory services, including financial planning.

- **Unit Trust Consultants**

Unit trust consultants are individuals licensed to sell and advise on unit trust products. Additionally, many unit trust companies also provide financial planning to their customers as value-added services.

1.6 RANGE OF FINANCIAL PLANNING SERVICES

In general, a financial planner is a specialist who provides advice in the various planning aspects of finance, in particular personal finance, in contrast to a stockbroker who is generally concerned with investments, or with a life insurance intermediary who advises on risk management products.

Financial planning is usually a multi-step process, involving the evaluation of the client's situation from all relevant angles to produce an integrated solution. Although there are many types of 'financial planners,' the term is largely used to describe those who consider the entire financial picture of a client and then map out a comprehensive solutions package. By way of differentiation, some planners may be called 'comprehensive' or 'holistic' financial planners.

Many financial planners specialize in one or more areas, such as insurance planning (or risk management) and retirement planning. In practice, financial planners play the primary role of helping individuals choose the right financial strategies. They provide, among others, relevant investment options and assist in making the right financial decisions so that their clients do not lose huge savings despite gaining a fortune. Financial planners tailor the right mix of financial products to cater to an individual's needs and lifestyle.

Due to the complexities in personal finances, people usually seek the help of a financial planner for the following purpose:

- Provision of direction and meaning to financial decisions.
- Enabling the client to understand how each financial decision affects the other areas of finance, and
- Assistance which will help the client to adapt more easily to life changes, providing security in times of uncertainty.

The types of services a financial planner can offer are as follows:



- **Risk Management and Insurance Planning**

Many clients strive for the right balance between the capacity to live with a certain amount of risk and the confidence to replace or minimize the impact of loss. In such a case, proper insurance planning can help the client. Financial planners can assist the client in creating a solid financial plan, including managing risks relating to mortality, health, and the protection of assets such as houses, vehicles, and valuables.

- **Investment Planning**

Investing is an effective way to create wealth and involves putting one's savings to work, enabling one to achieve his financial goals sooner. A financial planner can boost his client's net worth by wisely selecting suitable investment instruments that can increase his client's wealth and/or provide his client with an income.

- **Relationship Management**

The services of financial planners can move beyond pure product advisory to understanding and servicing the core needs of the client. A financial planner's job essentially entails understanding the client's financial needs and advising him on the various financial options available. The planner should be qualified to answer a client's questions pertaining to the ways his money could be better managed and explain the rationale behind each option he recommends to his client.

- **Retirement Planning**

A person about to retire faces many decisions, many of them big, and some literally life-altering. He must decide where he is going to live, what to do with his free time and how to spend or invest his money so that it lasts right through his retirement years.

Retirement should be one of the most enjoyable stages of the client's life – a time to reward himself for the many years of hard work. It should be a time he looks forward to enjoying, not a time of uncertainty and confusion. Whether the client is approaching retirement or has already retired, a financial planner can guide him towards optimizing his financial resources. Proper planning can help the client sail through retirement, confident that he is financially secure.

- **Tax Planning**

While many financial planners are qualified in tax planning, a financial planner can be especially helpful in long-range tax planning. Many tax-saving techniques must be completed during the tax year.

Although as a planner, you can help clients make tax projections and identify appropriate strategies in time to carry them out, more importantly this tax planning is done in the context of the client's overall financial picture, which you, as the client's planning partner, should be acquainted with.

That way, a tax-saving strategy that supports all your client's important financial goals can be implemented.

- **Estate Planning**

Despite being one of the most critical areas in the total management of an individual's financial affairs, estate planning is often overlooked. In addition to providing advice on wealth distribution, a financial planner can assist the client to create and protect his wealth.

- **Budget Planning**

Many people have trouble saving money. Although they could be earning millions during their working lives, they barely save a fraction of the money. Much is spent on luxuries and unnecessary items. These purchases add up and hinder their long-term savings goals. Financial planners can offer their services in drawing up an effective budget for these clients and guide them to adhere to it strictly.

- **Cash Flow and Liability Management**

Cash flow and liability management is an important and crucial step in reaching one's financial goals. Financial planners can help their clients determine their needs and wants, and work with them to establish a strategy for the management of cash flow and liabilities. Some areas of focus are cash reserve strategies, discretionary income, debt management, lines of credit and net worth.

- **Education Planning**

Investing for education expenses consistently ranks as a top priority for many Singaporean families as education costs continue to soar. Financial planners can help their clients explore the availability of scholarships, grants and loans, the benefits of education planning investments and explain how money set aside for college can be impacted by the availability of financial aid. They can also counsel the client on how to prioritize investing if time is short or assets are limited.

- **Business Succession Planning**

Business succession planning involves the development and implementation of commercial and legal strategies that will assist a business to continue operating in an effective manner should a particular event arise, that will have a significant impact on the business.

A financial planner can assist his client in the entire process - from development of commercial and legal strategies to implementing the business agreement and assisting with funding options. Whilst a financial planner can be principally involved in the business succession planning process, he may also seek the additional expert advice of relevant professionals like lawyers and accountants.

- **Debt Management**

Debt has become a perfectly normal and acceptable part of the modern world in which we live. Without debt, most people would probably never be able to purchase their own home (using a housing loan) or car (using a hire purchase facility). In today's competitive financial market, there is a myriad of lending (debt) products on offer - with terms, conditions, options, and interest charges to suit every need.

Comparing these products and selecting the one that best matches one's requirements is a time-consuming and often perplexing task. On the flip side, choosing the most convenient, rather than the most appropriate, lending product could have a substantial negative impact on financial well-being.

1.7 THE PROFILE OF A COMPETENT FINANCIAL PLANNER

The personal finance environment is dynamic and constantly evolving and, as time passes, becomes even more complex. Because of this, there is no room for complacency. Practitioners must be constantly on their toes to keep abreast of developments. Competency is an invaluable quality that every professional planner must possess.

Let us look at the qualities and attributes of financial planners who are successful as practitioners and business owners. These qualities can be divided into two categories: personal qualities and the qualities of the firm they represent.

1.7.1 Personal Qualities

According to the FSBP, there are three broad categories that a competent Financial Planner should be proficient in, and they can be summarized by the acronym ASK – Abilities, Professional Skills, and Knowledge.

Abilities

Abilities refer to the complete set of competencies required of a financial planning professional, in addition to job-related skills, attitudes, judgments and knowledge, which are equally crucial.

Such abilities include:

- collecting qualitative and quantitative information
- assessing information and estimating potential opportunities and constraints
- developing and evaluating strategies to create a financial plan

Professional Skills

Professional Skills required of a financial planning professional include the following four areas:

- Professional Responsibility

Crucial to their success as planners is gaining the trust and confidence of their clients. To this end, the way planners conduct themselves is extremely important. Trust-building requires a high level of professionalism as well as impeccable business and ethical standards. Gaining the client's confidence goes a long way towards retaining the business and growing the business by receiving strong referrals to the client's friends, colleagues, and associates.

- Practice

Planners should always comply with the relevant financial services laws and regulations and adheres to professional code of ethics and standards of practice.

- Communication

The financial planner must develop good interpersonal skills. While technical knowledge and skills are vital, the ability to interact with clients cannot be over-emphasized.

- Competency

Most people would expect certain basic pre-requisites of a person offering professional services. The clients of a financial planner would expect the planner to have attained the required educational qualifications and achieved a certain level of proficiency in the necessary areas of competency before practicing. They would also expect that the practitioner could demonstrate his competencies in the practical provision of financial planning advice in a supervised environment.

Knowledge

The FSB has identified a 11-category, 39-topic Financial Planning Body of Knowledge that outlines the knowledge a financial planner must be able to draw on to deliver financial planning to clients, or when interacting with colleagues or others in a professional capacity. The 11 categories are divided into three sub-categories to reflect the location specificity of the knowledge set.

Global	Global & Country-Specific	Country Specific
	I. TAXATION <ul style="list-style-type: none"> • Assessment Rules • Personal Taxation • Corporate Taxation • Wealth Transfer • International Tax Issues 	-
II. INSURANCE <ul style="list-style-type: none"> • Business Insurance • Life Insurance • Disability Insurance/ Income Replacement • Health Insurance • Critical Illness Insurance (includes Dread Disease and Trauma) • Property Insurance • Casualty Insurance 	-	-

Global	Global & Country-Specific	Country Specific
III. INVESTMENT <ul style="list-style-type: none"> • Investment Types • Investment Structures • Types of Investment Risk • Measurement of Investment Risk • Portfolio Management Techniques • Selling and Buying Techniques • Performance Measurement • Modern Portfolio Theory 	-	-
-	IV. RETIREMENT, SAVINGS AND INCOME PROGRAMS <ul style="list-style-type: none"> • Government Pension • Government Savings • Employer / Employee Programs • Personal Retirement • Personal Savings 	-
-	-	V. LAW <ul style="list-style-type: none"> • Private Law • Corporate Law
VI. FINANCIAL ANALYSIS <ul style="list-style-type: none"> • Analysis of Financial Information • Personal Financial Ratios • Cash Management and Budgeting • Personal Financial Statements 	-	-
VII. DEBT <ul style="list-style-type: none"> • Consumer Credit and Credit Management • Mortgages • Leases • Insolvency and Bankruptcy 	-	-
-	VIII. ECONOMIC AND REGULATORY ENVIRONMENT <ul style="list-style-type: none"> • Economic Environment • Regulatory Environment 	-
-	-	IX. GOVERNMENT BENEFITS PLANS
X. BEHAVIORAL FINANCE	-	-

Global	Global & Country-Specific	Country Specific
XI. ETHICS AND STANDARDS <ul style="list-style-type: none"> • Code of Ethics • Financial Planning Practice Standards 	-	-

Other Attributes

There are several professional attributes that clients expect of their financial planners which cannot be quantified in law or professional membership regulations. Such attributes include the dress and demeanour of the professional, and the image projected by the decor and surroundings of the planner's business premises.

In terms of meeting their client's expectations, many successful financial planners take pains to set up premises that reflect the environment, both physical and perceived, of a professional establishment. Such emulation helps to communicate to the client a commitment to professionalism and high standards.

A financial planner should be client-oriented rather than product-oriented. Legal requirements and professional standards of conduct are of little value unless appropriate attitudes are developed by financial planners towards their work practices and their clients.

These are clear indications to a prospective client that the planner takes his role seriously. It also helps to separate the professional financial planner from the industry's many fringe operators.

Poor attitudes can easily be discerned from obvious behaviour, for example:

- lack of planning for the meeting/contact,
- talking too much,
- using too much jargon,
- uncomfortable and/or unprofessional surroundings,
- lack of product knowledge,
- poor personal appearance,
- aggressive demeanour,
- failure to ask the right questions, and/or
- failure to listen.

1.7.2 Firm Qualities

In addition to the personal qualities of the financial planner, there are several aspects about the firm to which the individual financial planner is attached that needs to be considered.

- For example, if the firm is owned by a financial institution or an insurer, the owner's products might be the ones that will be actively promoted, but these may not necessarily be the best options available. This does not mean that such firms should be avoided, however, a client should be informed of the situation, so that he can take it into account when assessing recommendations.

- It is necessary for a financial planning firm to have current and timely information to ensure that the best advice is given to their clients. The research can be in-house or sourced from firms specializing in the relevant focus areas.
- Firms operating in the financial planning market in Singapore are required to be licensed by the Monetary Authority of Singapore. Their license may restrict them in the types of advice that they can give. For example, many firms cannot give advice on direct share investments. This is not necessarily a significant problem, but it is pertinent that a client is made aware of this fact.

FPSB recognizes that a comprehensive analysis that identifies the abilities, skills and knowledge required to competently perform the tasks of a profession is the cornerstone of a quality professional credential program. As such, it has established the Financial Planner Competency Profile which describes the abilities, skills, attitudes, judgments, and knowledge that a financial planning professional draws on when working with clients in financial planning engagements. A copy of the Competency Profile can be obtained at their website (www.fpsb.org).

To competently deliver financial planning to clients, a financial planning professional needs to combine the ability to carry out the tasks of financial planning using appropriate professional skills whilst drawing on his or her knowledge of financial planning matters. The effective combination of abilities, skills and knowledge is what defines the financial planning professional's performance as competent.

Sources of Client Acquisition

Identify and understand the relevant sources for acquiring new clients.

Prospecting is to financial advisors as blood is to the human body. You may be the most qualified advisor with the best products and services, but if you do not have prospective clients to see, you will starve. Prospecting, therefore, is arguably the lifeblood of your practice; the better you can do it, the greater the likelihood of achieving your business and professional goals.

Prospecting is the continual activity of identifying, and prequalifying new people to meet and talk to concerning your business and services. Prospecting is part of the marketing process designed to identify people to call on for an appointment. It is the marketing activity that narrows an advisor's focus from the broader market to the selling of products and services to individual prospects.

How an adviser acquires new clients depends on his business strategy. His business strategy is to a large extent driven by his specialty and/or his connections.

A new adviser may not differentiate his clients in a strategic manner; he would do business with anyone who would grant him an appointment. But over time as he grows his business, he may consider more strategically how best he could improve his productivity by prospecting the kind of clients he would like to work with and would value the skill sets that he has.

To get the most of his time, an adviser will have to prioritize his time to his most effective prospecting activities. And it can come from one or many sources or activities.

Prospects will come from one of three sources:

1. People who know you favourably (friends, family members, ex-colleagues, clients etc)
2. People recommended by those who know you favourably (referred leads from clients, friends, and centres of influence etc)
3. People who do not know you at all

People who know you favourably

This is usually the best source of qualified prospects since the prospects are approachable by you on a favourable basis. There are two major groups of people to consider here: clients as well as friends and family.

Prospecting among your client base is usually applicable when you are cross-selling other products. It is best undertaken using one of three methods:

1. Service Transactions – such as handling claims, servicing policy issues, etc.
2. Financial Reviews – The purpose of a periodic financial review is to monitor the client's progress in meeting financial goals as well as to identify any new financial needs that they may have. This is one of the best prospecting tools for the financial advisor representative.
3. Seminars – these are client education events designed to achieve one or both of the following objectives:
 - to create client awareness of financial needs and methods for addressing them
 - to help clients with ancillary aspects of their goals that cannot be addressed with your products and services

Client education through seminars can create additional planning or sales opportunities and enhance your chances of referrals from your existing clients.

Our friends and family know us favourably. However, we tend to approach them cautiously for fear of damaging these more intimate relations. However conservatively we feel about approaching family and friends, they similarly will have financial needs. A soft approach may involve doing a short introduction of the services and/or products you provide. The whole idea is not to sell immediately but letting them know that you will be available to help.

People recommended by those who know you favourably

A prospect is more likely to meet with the advisor if the advisor has been recommended by someone the prospect knows and trust. Therefore, the best source to increase one's clientele base beyond family and friends are prospects recommended by those who know you favourably. Prospects from this source are known as referrals or referred leads. Advisors should handle them with great care since the referrer or nominator has put his or her reputation on the line for the advisor. Referred leads are gained through three different prospecting methods:

1. Personal recommendations – are the referrals an advisor receives from clients, friends, and family.
2. Centres of Influence (COI) – A COI is an influential person who knows you favourably and agrees to introduce you or refer you to others such as helping the COI achieve personal goals or goals for the members of his or her sphere of influence.
3. Networking – is the process of continually sharing ideas, resources, and prospect names by non-competing businesses that target the same market. It is indicated when there are other professionals and businesses that specialize in working with your target market. The idea is different from merely attending social functions to meet potential prospects; rather it is a deliberate meeting where professionals meet to discuss potential prospects or refer the services of one and another.

People who do not know you at all

These groups of people will be mostly total strangers or cold leads. There are many prospecting avenues to approaching them:

1. **Personal interaction** requires mastering the art of listening and the art of small talk and showing a genuine interest in others. It also requires an ability to ask meaningful but innocuous questions that help you qualify a prospect. This prospecting method works best at gatherings and events.
2. Another prospecting method is to sponsor or establish a formal presence at a **public event** that appeals to your target market. You could sponsor a child safety fair at a local school, coordinating your efforts with the local police department. Your booth, if you are a life insurance agent, could promote life insurance as a means for a parent to protect their children's financial future. Although the main purpose of using public events is to create awareness, there are opportunities to gather names and contact information of people who may want more information about life insurance and other financial needs. [Road shows]
3. **Group presentations** are more of a method for creating awareness than selling a product. Like the personal interaction method, the group presentation method is excellent for target markets that have regular meetings and presents excellent opportunities for collecting leads.
4. **Direct Response** involves sending letters with reply to cards that prospects can return if they are interested in an appointment or more information. Sometimes, the letter will offer a small gift to prospects who respond to the direct mail letter and agree to a free consultation with the advisor. An alternative is to use e-mail if e-mail addresses are available. If the prospects are not on a do-not-call list, advisors may follow up with a phone call to set up an appointment.
5. **Advertising** (phone book, newspaper, radio, Internet)
Newspaper prints and journals can have the ability to target a specific market. Radio advertising can also be targeted to specific demographics.

6. Personal Website, Blogs & Social Media

A personal website is a way of enhancing personal branding and communicating your services and expertise. A blog communicates your ideas publicly and is another way for potential clients or prospects to get to know you. Facebook, LinkedIn, Twitter, etc can be used to market and increase the profile of the advisor in the marketplace. Potential customers can gain confidence in an advisor's talents and abilities by learning about his or her personal philosophy or previous work through these internet channels.

Practitioners can use a variety of methods to track their prospecting activities and ensure they devote their time to quality activities that will build towards a successful practice. There are a few common methods or system that financial practitioners use. Examples include the One Card System created by Al Granum or the Sales Builder Concept. Whatever the system or process adopted, the financial planner needs to work effectively and efficiently to focus his time on productive work and creating a sustainable and quality practice.

Value Proposition of the Financial Planner

State the concept of value proposition.

It's important for a financial adviser to have a unique value proposition for the same reason that it's important for any business to have one. An advisor's value proposition is often the first impression that potential client's experience, and that can be the catalyst for a future relationship. This statement answers the prospect's question "Why should I choose you?"

A value proposition should explain to the prospect what makes a particular financial adviser unique, what value and insights the adviser can bring in fulfilling the prospect's financial needs, achieving his financial goals and enhancing his experience in the process. The value and insights might be the adviser's unique experience in bringing better investment performance, ability to build a family legacy beginning with wealth protection and preservation, strategies in achieving financial independence, etc.

Besides technical expertise, prospects are looking for professionals they can relate to and with. The relational experience with the adviser is just as important. Therefore, areas such as service standards, accountability, what the adviser do to foster trust, including scheduled review sessions, etc. These, when communicated can bring much assurance to prospects about what the adviser can bring into a mutual long-term relationship.

It's an increasingly competitive world in business generally, and there is a proliferation of financial advisers. Therefore, it's especially important for a financial adviser to be able to distinguish himself from the crowd in a way that significantly enables him to stand out to his target audience of potential clients. Successful prospecting will require the adviser to deliver and communicate his value proposition in a powerful and effective way to his target or ideal client.

Personal Financial Statements & Analysis

Analyse relevant information, review clients' personal financial statements and personal financial ratios.

Mr Tan Kok Chew has the following assets and liabilities as at 30 Jun 20XX

Residence	
• Purchase price	\$1,000,000
• Original Mortgage	\$800,000
• Current Mortgage balance	\$500,000
• Fair market value	\$1,200,000
Investment Property	
• Purchase price	\$800,000
• Original Mortgage	\$600,000
• Current Mortgage balance	\$500,000
• Fair market value	\$1,000,000
Car	
• Purchase price	\$150,000
• Original loan	\$100,000
• Current loan balance	\$50,000
• Fair market value	\$110,000
Cash	\$5,000
Fixed Deposit account balance	\$5,000
Market value of unit trust	\$80,000
Other personal property	\$30,000
Cash value of insurance	\$20,000
CPF (OA + SA + MS)	\$25,000+\$15,000+\$20,000
Mortgage payment – Residence	\$5,000
Car loan payment	\$1,000
Mortgage payment – Investment property	\$5,000

In addition, he also provided a list of his expenses and income for the year ended 30 June 20XX:

	\$
Annual Gross salary (inc. 3 months Bonus)	72,000 + 18,000
Annual Interest income	500
Annual Rental income	48,000
Annual Dividend income	1000
Annual Savings	20,000
Annual Mortgage payments – CPF	24,000
Annual Mortgage payments – Cash	17,000
Annual Car loan payments	12,000
Annual Insurance premiums	3,500
Annual Tax	9,000
Annual Entertainment expenses	8,000
Annual Clothing and personal care expenses	4,500
Annual Transportation expenses	4,000
Annual Medical/dental expenses	1,000
Annual Utilities Bill	3,000
Miscellaneous (Annual)	1,000
Annual Food Expenses	8,000

Based on the above information and using Excel worksheets,

- Prepare a personal statement of net worth as of 30 June 20XX
- Prepare a cash flow statement for year ended 30 June 20XX
- Calculate the following ratios:
 - Liquidity ratio
 - Savings ratio
 - Debt to asset ratio
 - Debt service ratio
 - Net investment assets to net worth ratio
 - Solvency ratio
- Comment on the financial health of Mr Tan Kok Chew

Statement of Net worth

Statement of Net Worth			
Mr Tan Kok Chew			
As of 30 June 20XX			
<u>Liquid Assets</u>		<u>Current Liabilities</u>	
Cash	\$ 5,000	Mortgage payment – Residence	\$ 21,000
Fixed Deposit	\$ 5,000	Mortgage payment – Investment property	\$ 20,000
			\$ 120,000
<i>Total Liquid Assets</i>	<i>10,000</i>	<i>Total Current Liabilities</i>	<i>53,000</i>
<u>Investment Assets</u>		<u>Long Term Liabilities</u>	
CPF Savings	60,000	Mortgages balance - Residence	300,000
Unit Trust	80,000	Car Loan balance	50,000
Invested Property	1,000,000	Mortgage balance – Investment property	500,000
Cash value of insurance	\$ 20,000		
<i>Total Investment Assets</i>	<i>1,160,000</i>	<i>Total Long-Term Liabilities</i>	<i>850,000</i>
<u>Used Assets</u>		<u>Total Liabilities</u>	
Residence	1,200,000		903,000
Car	110,000		
Other Personal Property	30,000		
<i>Total Personal Assets</i>	<i>1,340,000</i>	<i>Total Net Worth</i>	1,607,000
TOTAL ASSETS	2,510,000	TOTAL LIABILITIES & NETWORTH	2,510,000

Statement of Annual Cash Flow

INFLOWS			
Take Home Salary		\$ 60,000	
Bonus (3 months)		\$ 14,400	
CPF from employee		\$ 15,600	
CPF from employer		\$ 13,260	
Dividend Income		\$ 1,000	
Interest Income		\$ 500	
Rental Income		\$ 48,000	
<i>Total Inflows</i>			\$ 152,760

OUTFLOWS			
<i>Annual Savings</i>			\$ (20,000)
Fixed Outflows:			
Mortgage payments - CPF	\$ (24,000)		
Mortgage Payments - Cash	\$ (17,000)		
Car loan payments	\$ (12,000)		
Insurance premiums	\$ (3,500)		
<i>Total Fixed Outflows</i>			\$ (76,500)
Variable Outflows:			
Tax	\$ (6,000)		
Entertainment	\$ (9,500)		
Clothing & Personal Care	\$ (4,500)		
Transport	\$ (4,100)		
Medical/Dental	\$ (1,000)		
Utilities	\$ (3,000)		
Miscellaneous	\$ (2,500)		
Food	\$ (9,000)		
<i>Total Variable Outflows</i>			\$ (39,600)
<i>Total Outflows</i>			\$ (116,100)
NET INFLOW/(OUTFLOW)			\$ 36,660

A healthy financial standing is one in which at the very least, must have a positive net worth and there must be a surplus of inflows over outflows. However, there are other areas that need consideration concerning the financial health of a client. An effective way of measuring different aspects of an individual's financial standing is using financial ratios. There are a few areas which financial ratios can disclose about the state and constituents of a person financial standing.

1. Ratio that Measure the Level of Emergency Liquidity

$$A. \quad \text{Liquidity Ratio} = \frac{\text{Cash On Hand}}{\text{Monthly Expense}}$$

This ratio measures if an individual has enough cash to tie over emergencies such as a retrenchment or a disability. Most disability insurance has a 6-month elimination period before disability proceeds are paid. Thus, the general accepted guideline is to have sufficient liquid cash to cover between **3-6 months of expenses** in the event of emergencies.

$$10,000 / [116,100 / 12] = 1.03 \text{ months}$$

With a liquidity ratio of only 1.03 means that Mr. Tan can only continue to meet his expenses from cash & cash equivalents for only a month after a total loss of income. While his next significant source of income comes from rental and this might not be as critical should he lose his job, he should note that rental income carries with it its unique risk. It is recommended to increase his cash savings and have liquidity ratio equal to 3 to 6 months' expenses in an emergency fund (\$29,025 – \$58,050).

B. Liquid Asset - to - Net Worth = $\frac{\text{Cash On Hand}}{\text{Net Worth}}$

Another measure of an individual's ability to handle short-term emergency is the liquid asset-to-net worth. The accepted norm is to have **at least 15% of net worth** in liquid cash.

These benchmarks are advocated to handle short-term emergencies. Adverse situations that last for a longer period will have to be taken care of by other means such as insurance. Setting aside a large amount of liquid cash over what is required is counter-productive since liquid assets yield low returns. In reality, how much emergency fund to set aside will depend on the unique circumstances of the client such as objectives, the amount of resources, type of insurance coverage, the level of co-payments and deductibles in insurance contracts, etc.

$$10,000 / 1,607,000 = 0.622\%$$

This means only 0.622% of Mr. Tan's net worth is in the form of cash and cash equivalent. This is way below the recommended level of at least 15%. Mr Tan must increase his liquid asset not only for emergencies but also to give him flexibility towards opportunistic asset purchase.

2. Ratio to Measure Ability to Save

Having enough emergency cash is linked to one's ability to save. The financial planner will want to see if an individual has a habit of setting aside some portion of income as regular savings. It is from the client's savings pool that investment assets are acquired, and wealth accumulated.

Savings Ratio = $\frac{\text{Savings}}{\text{Gross Salary}}$

The two figures are taken from the individual's cash flow statement and measure what portion of regular income is set aside as regular savings. Most analysts advocate a savings ratio of **at least 10% of gross salary**. While a portion of gross salary is saved into the CPF accounts, there are restrictions to the usage of CPF money and it is highly advisable for the client to save beyond the mandatory requirements of the CPF scheme.

$$20,000 / 152,760 = 13.10\%$$

Mr. Tan's savings ratio is above the recommended benchmark of 10%. Yet depending on how his assets are doing in relation to his retirement goals for instance, he may need to increase his savings. The bottom line is that the ratio is to be interpreted together with the overall picture of the client's financial health.

3. Ratio to Measure Level of Invested Assets

It is not enough merely to save regularly. These savings must be allocated into some invested assets for wealth accumulation over time. The type of assets to invest in will depend on the client's risk preference.

Total Investment Assets-to-Net Worth = Total Investment Assets / Net Worth

It is recommended that an individual should have **at least 50% of net worth** in investment

assets. $1,160,000 / 1,460,000 = 79.45\%$

79.45% of Mr. Tan's net worth is invested. However, he should take note that his investment property constitutes more than 85% of his invested assets. It is recommended that he increase his investment allocations to other asset classes such as stocks, bonds, or other classes of assets to diversify risk concentration in a large illiquid asset.

4. Ratios that Measure the Level of Indebtedness

A. Debt-to-Asset Ratio = Total Liabilities / Total Assets

Debt-to-Asset ratio measures the ownership structure of the client's assets. It determines the proportion of assets that is financed by borrowings. An accepted benchmark is to ensure **not more than 50% of his assets** to be financed by debt.

$903,000 / 2,510,000 = 36\%$

43.90% of Mr. Tan's assets are financed by debt and this is considered safe. This shows his debt levels are not excessive.

B. Solvency Ratio = $\frac{\text{Total Net Worth}}{\text{Total Assets}}$

Solvency ratio is the opposite of debt-to-asset ratio. It measures the portion of total assets that is owned by the client.

It is recommended that an individual should not finance more than 50% of its total assets using debt. Alternatively, he should own **at least 50% of his total assets**.

$1,607,000 / 2,510,000 = 64\%$

As with his Debt-to-Asset ratio, his solvency ratio is within the benchmark. Being heavily invested in real estate, fluctuations in the value of his investment property may bring his solvency ratio down.

5. Ratios that Measure Ability to Service Debt

A. Debt Service Ratio =
$$\frac{\text{Total Annual Debt Payments}}{\text{Total Annual Take Home Pay}}$$

Total debt payments will include all short- and long-term debt servicing amounts paid over the year. Total annual debt payments not exceeding 35% of annual take home pay is an acceptable benchmark. The recommended benchmark is more conservative than the Total Debt Service Ratio (TDSR) of 60% of gross income (which includes CPF contribution).

$$[24,000+17,000+12,000]/[60,000+14,400+500+48,000] = 43.12\%$$

43% of Mr. Tan's take home income is used to repay debts above the recommended total DSR ratio of below 35%. If we include Mr. Tan's CPF contribution in the denominator, then the total DSR will become exactly 35%, within the recommended benchmark.

B. Non - Mortgage Debt Service Ratio =
$$\frac{\text{Total Annual Non - Mortgage Debt Payment}}{\text{Annual Take Home Pay}}$$

While mortgage often constitutes the largest indebtedness of the client, a measurement of the client's other non-mortgage borrowings is also important. Most of these other loans will include credit card payments, personal and revolving credit loan payments. **15% or lower** is considered a healthy range by most analysts.

$$[24,000 + 17,000] / [60,000+14,400+500+48,000] = 33.36\%$$

Mr Tan's mortgage payments is more than 2 times the recommended level of 15%. While his debt levels are relatively low, his debt servicing may be stretched if interest rates rise. He may consider paying down his loan over time to reduce the level of indebtedness further but more important to lower his debt servicing risk.

The financial ratios are to be analysed collectively. In many senses individual ratios are related to each and they form a better picture of the client's financial situation when analysed together. For instance, if one has taken a high level of debt, the corresponding level of payments to service debt will most likely be higher which will also decrease the client's ability to save and may affect the level of liquid cash and investment endeavours. Together with other relevant fact find information gathered about the client, the financial statements and ratios will be able to pinpoint the area of weakness the client need to work on in order to steer towards his financial goals.

Two common issues are typically uncovered during this stage of the planning cycle that requires immediate attention by the client. They are the level of emergency liquidity and the need to reduce the level of indebtedness.

Catering for Sufficient Emergency Funds

Emergency funds are meant to handle short-term emergencies like retrenchment, and/or unexpected large expenditures such as home or auto repairs. It was advocated that there should be enough cash on hand to cover 3-6 months of expenses. However, the level of emergency funds depends on the client's risk perception, the presence of sufficient risk management in place, other sources of income, etc.

Catering for emergency funds is part of risk management in the financial planning process. A financial plan runs the risk of interruption if it does not consider its ability to withstand short-term stress. The easiest way to increase cash holding is to liquidate some investment assets. However, timing may not be ideal for such an action. Life insurances are part of risk management to address longer term emergencies. Surrendering life insurance policies for their cash value should therefore be considered only at the last resort. The planner should also warn the client from using credit or mortgage to cover emergencies. It is not only expensive but using debt may in fact compound the emergencies.

More likely than not, the most effective solution to increase the level of liquid cash is for the client to examine spending patterns and make appropriate deductions and transfer them into cash savings over time. It may be painful initially for the client, but it is necessary for the client financial wellbeing.

Debt Management

A weakness that the financial planner may have to address with the client is the unhealthy level of borrowings the client has incurred. This is usually the result of ill-discipline in purchases and over-spending against the client's periodic income is a related cause. The first area to work on is to reduce discretionary expenses of the client. These are usually expense items in the variable out flow list. By reigning in on undesirable spending habits, the client at least mitigates the possibility of incurring more debt and compounding financial problem. The goal of this process does not mean that the client ceases from making any expenditures. The aim is to reform spending habits, if need be, by replacing them with prudent ones.

The amounts saved from discretionary expenses can be applied to par down outstanding loan. In most cases an individual may have taken excessive credit card and personal loans. The planner can advise the client to prioritize repayments by paying the loan that has the highest interest cost first. Use credit card balance transfer program if it can extend the tenor of repayment and reduce interest cost. The client can try negotiating some form of a repayment schedule with the lender and hope to reduce financing cost as a condition. For longer term financing like property loan, it may help to refinance the loan to obtain lower interest rate on the mortgage. The exercise will have to be evaluated against all the associated refinancing costs. If refinancing will incur upfront and sizeable charges while the resultant savings only happen over time, then the decision may not be so straight forward. The last resort to reduce enormous debt burden may have to be asset sale. If recurring periodic income proves inadequate to address the issue, then some assets will have to be utilized and hopefully the corresponding liability associated with the asset is also reduced.

The nature and implications of various debt structures will be investigated in the subsequent chapters. If a client has a debt problem and is not addressed, the financial planning exercise may be not take-off at all. A client who is serious about financial health and future should employ whatever legal means to aggressively reduce debt levels. A healthy financial standing like physical health will give confidence to work towards achieving one's financial aspirations.

1.8 THE BASICS OF A FINANCIAL PLAN

For a financial planner, financial planning is the process of developing strategies to assist clients in managing their financial affairs to meet life goals, integrating various financial planning components. However, like most other processes, there is more than one way to do it.

FPAS has recommended that financial planners adopt the following six steps formulated to help you determine the best route to achieving your client's financial goals.

The following six steps are specifically formulated to help financial planners determine the best route to achieving their clients' financial goals.

Step Description	
1	<p>Establishing and defining a relationship with the client</p> <p>You should start by working towards a “meeting of minds” to understand your client’s aspirations. During the initial phase of the planning process, you should explain to the client the services you will be providing. Your responsibilities, and your client’s, should be defined. The length of the professional relationship and how decisions will be made should be discussed. Your fees should also be agreed upon, including the rate and schedule for payment. With this mutual understanding established, both of you should be able to get down to the serious business of achieving his financial goals.</p>
2	<p>Gathering client’s data, including goals</p> <p>Next, you should ask for information about your client’s financial situation. Work with your client to define his personal and financial goals, taking into consideration his time frame for results. Discuss, if necessary, his feelings concerning risk. You should gather all the necessary documents dispensing any the advice.</p>
3	<p>Analysing and evaluating the client’s financial status</p> <p>After securing the relevant information, you should analyse them to assess your client’s current situation and determine what he must do to meet his goals. Depending on what services he requires, this could include analysing his assets, liabilities and cash flow, current insurance coverage, investments, or tax strategies.</p>
4	<p>Developing and presenting financial planning recommendations and/or alternatives</p> <p>You should offer recommendations that address your client’s needs, based on the information he provides. You should go over the recommendations with him to help him understand them so that he can make informed decisions. You should also listen to his concerns and revise your recommendations appropriately.</p>

Step Description	
5	<p>Implementing the financial planning recommendations</p> <p>Your client and you will have to come to a mutual agreement on how the recommendations should be carried out. You may carry out the recommendations or serve as “coach” to the client, coordinating the whole process with him and other relevant parties such as solicitors and tax accountants.</p>
6	<p>Monitoring the financial planning recommendations</p> <p>Your client and you should agree on who will monitor his progress. If you oversee the process, you should report to the client periodically to review his situation and adjust the recommendations, if needed, as his life changes.</p>

As an aspiring financial planner, you will need to have a good grasp of these steps. They will help you get the most out of the work as a financial planner in the future. The six-step process is a big-picture approach that sets financial planners apart from all other financial advisors who may have been trained to focus only on one aspect of finances.

We will now explain the application of the six-step process.

1.8.1 Establishing and Defining a Relationship with the Client

If you have decided to work with a client, you will need to establish as clear an understanding as possible with him. You should produce a contract or letter of engagement that mutually protects both of you, and you should also make sure your client fully understands his expectations regarding how to interact with you.

For obvious reasons, your client and you should mutually define the scope of the engagement before any financial planning service is provided. This does not have to be anything complex; in fact, most planners use a standard contract form but may modify it to suit each client’s individual requirements. It is important, however, to get the client to fully understand the contents of the letter of engagement and to sign it at the end.

Among others, the letter of engagement should cover the points outlined below:

- The service(s) you will be providing.
- Any material conflict(s) of interest on your part.
- Your compensation arrangement(s).
- The client’s responsibilities as well as yours.
- The duration of your engagement; and
- Any additional information necessary to define or limit the scope.

1.8.2 Gathering Client’s Data, including Goals

A journey of a thousand miles may begin with one step, but chances are you won’t know which direction to walk in unless you first know where you are starting from. While any plan to achieve financial goals will primarily focus on the future, you cannot completely ignore the financial past of your client.

Even if your client doesn't have to make major adjustments to his personal finances, you will need an accurate picture of what his current finances are, if for no other reason than to gauge how much more money he will need to meet his various financial goals in the future.

Personal Data

The first section of the client data sheet typically requires general information, such as personal details, family members, children and other dependants, their ages and state of health. There are ample reasons for this section which is structured to give the planner valuable background information. Foremost, the clients' legal names are necessary for subsequent documentation. Where there are dependants, it is necessary to know how long they are likely to be dependent. This is because provisions will have to be made for the dependants in the event of death or incapacity of the income earner. Estate planning provisions will also need to be made. Questions relating to health are necessary in relation to insurability.

Goals and Objectives Data

Personal financial planning is broadly defined as a process of determining an individual's financial goals, purpose and priorities in life and then crafting a balanced and realistic plan to meet those goals after considering his resources, risk profile and current lifestyle. The individual's goals are used as guideposts to map a course of action on 'what needs to be done' to reach those goals.

Alongside the data gathering exercise, the planner must determine whether the client's goals are meaningful in the context of his situation. Through careful analysis, these goals are subjected to a reality check based on the client's current and projected future resources. In the process, the constraints, and obstacles to achieving these goals are noted. The information will be used later to determine if there are sufficient resources to get to these goals, and what other things need to be factored into consideration. If resources are insufficient, the goals will have to be adjusted to more realistic levels or replaced by new goals.

Most clients are so busy with the day-to-day demands of their personal and financial lives that they often neglect to sit back and take stock of what they want to accomplish with all their hard work. As a planner, one thing you should do for your client is to assist him in establishing some financial planning objectives. Help him to figure out what he wants to achieve. Your objective input will help him to arrive at the necessary actions towards achieving his dreams.

It is important to determine clear and measurable objectives relevant to the scope of your engagement. Your role is to facilitate the goal-setting process. When appropriate, you should try to assist him by clarifying the implications of any limitations which could affect the conclusions and recommendations.

Establishing Important Goals and Objectives

Most clients' main financial planning goal is financial security. Financial security means living the rest of their life without having to work or, should they be retired, not having to worry about running short of money in the face of constantly rising living costs. Most people don't achieve financial security until about the time they retire, and there's nothing wrong with that. What is unfortunate, however, is the number of people who never get to achieve financial security — whether at age 55, 65, or any age at all.

Achieving financial security requires a lot of planning and some sacrifice because the only way a person is going succeed in reaching his goal is to save regularly. In other words, the client must learn sooner, rather than later, to live within his means — and even after he has retired.

Goals are broad, relatively open-ended forecasts of what the client wants to achieve. As mentioned above, financial security is the most important planning goal. Objectives are more specific ends that the client may want to achieve within a definite period. Most clients probably have a variety of financial planning objectives, although they may not have thought about them in much detail.

The common objectives are:

- Saving more regularly
- Improving personal record-keeping
- Reducing debt
- Assuring complete insurance coverage
- Increasing income through a part-time job
- Buying a home
- Making a major purchase
- Reducing income taxes
- Meeting children's college-education costs
- Retiring early
- Providing support for elderly parents
- Making sure estate is properly planned.

You should ensure that the client is specific about his objectives. Be sure to write them down clearly and discuss them with him from time to time. Also, remember that the client's objectives may change for several reasons, including age, changes in income, and changing marital or parental status. For example, the arrival of children often dramatically alters a couple's financial planning objectives.

Prioritizing Your Client's Objectives

Some objectives are more important than others. Therefore, assigning priorities to your client's financial objectives is essential. Of course, the client's priority is achieving financial security by the time he retires. But what's next? Many people would rank securing adequate insurance coverage far down on the list, yet it is so essential to financial security that it should be a very high priority. Insufficient insurance may jeopardize years of past — or future — savings.

You should also set timetables for the client to achieve his objectives. But be realistic, not obsessive. Concentrate on helping the client to achieve reasonable and sensible financial objectives. Also, consider non-financial issues. For example, do not leave out your client's lifestyle wants and needs. While these shouldn't be extravagant, they also shouldn't be ignored.

Planning often requires some self-discipline, for instance, postponing some enjoyment today for the sake of future wellbeing. To be effective, the plan should consider the individual's current lifestyle so that the 'pain' of postponing current pleasures will be bearable over the term of the plan.

In times when current sacrifices are needed, the plan should help ensure that the pursuit of the goals will not be hindered. A plan should recognize the importance of each goal and give priority to it. Many financial plans fail because these practical points have not been sufficiently ironed out.

Risk Profile Data

The planner needs to develop a true picture of the client's attitude to risk. Risk profiling is the method used to establish a client's attitude towards risk so that an investment portfolio can be developed reflecting the degree of risk he feels comfortable with.

Due to its inherent nature, risk is an enduring problem and, hence, a tough call for financial planners and their clients. The challenge is to first recognize the client's tolerance for risk — his risk profile — and then implement strategies to effectively manage the risks at an acceptable level.

A planner will be required to demonstrate his capability here - can he establish a risk profile in a systematic and defensible manner? Doing so will assist him in determining the appropriate asset allocation and associated strategies.

How then does a planner conduct risk profiling? A multitude of proformas can assist in this purpose. The key word here is 'assist'; these proformas do not completely replace the planner's professional judgment as he is still the one who must determine his client's risk profile based on all the evidence available.

In his plan, the financial planner should lay out the risk profile he has determined — it is then up to the client to accept or reject his findings and the conclusions he has drawn up.

Many planners use a questionnaire to determine risk profiles. The client is required to answer all the questions in the risk profiler. Once completed, all the numbers will be added up and the resulting tally will indicate where the investor fits in on the investment spectrum.

However, a questionnaire will only give partial answers. The bottom line is that no standard risk selection process can offer the perfect solution. Not all clients slot neatly into a pre-defined "one-size-fits-all" category. Nothing can replace getting to know a client individually - and invariably the best way to achieve this is for the client and planner to spend time together.

Broadly, risk tolerance tests fall into two categories: investment preference tests and psychological tests.

- **Investment Preference Tests**

Typically, an investment preference test is a questionnaire that addresses preferences for selected investment vehicles. It asks questions about your client's current financial situation, goals, and past investment experience.

This type of test is easy to construct and relatively simple. The disadvantage, though, is that it does not accurately gauge risk taking propensity because it does not deal with emotional reactions to risk.

- **Psychological Tests**

A psychological test is a more elaborate questionnaire that attempts to gauge an investor's attitude toward risk. This type of test generally includes questions about your client's feelings or behaviour, or it may ask him to respond to hypothetical situations.

This method of testing is easy to administer and can be fun to take. The disadvantage is that people generally like to consider themselves as risk takers and may not respond as accurately as they should.

Insurance Data

What insurance covers are in force? These will be divided into categories -- life insurance and general insurance. What protection does the client have? Is it adequate in both breadth and amount?

Pension Data

Does the client have a pension? What does the scheme provide -- accumulated or defined benefits? What are the reasonable benefits limit, current tax components, termination payments and their elements?

Investments Data

What investments does the client have now? Full details of these are needed so they can be evaluated. Find out why your client made those investments. This will help give you an insight into your client's overall knowledge of investments and his attitude to risk.

Estate Data

Has the client made a will? Where is it kept? What provisions have been made in the will? For example, have trusts been established to provide for dependants? Has the client given a power of attorney? It may well transpire that the client has not given much thought to these areas, and they need to be discussed and explained.

Financial Data

- Net Worth Statement

To determine his current financial status, your client will need to take an inventory of all his assets and liabilities by preparing a net worth statement.

The net worth statement is a useful tool in taking a snapshot of the client's current financial status. It tells you his net worth - which is essentially the grand total of all his assets, minus his liabilities.

- Cash Flow Statement

After you have completed the inventory of your client's assets and liabilities, the next step to understanding his financial situation is to come up with a cash flow statement.

Assembling Other Important Information and Documents

When constructing the client's financial plan, you should consider the effects that existing legal documents and arrangements may have on the plan. Some of these arrangements may be readily changeable, such as most wills and trusts. Others, such as contracts and marriage dissolution agreements, may be difficult or impossible to amend. Still others can be changed if the client is willing to pay penalty or fee, such as variable annuities, or housing loans that can be refinanced.

The client's existing legal arrangements can affect his current and future financial position in several ways. Some can have considerable primary impact on his current cash flow situation. If a current legal obligation requires him to pay out money (for example, alimony), he will have to keep on paying until the obligation is satisfied.

Thus, he will have less money for other purposes. Other legal arrangements may also affect how he disposes of his wealth at death. Wills and trust documents are good examples.

One of a planner's first tasks is to request for documents and other evidence relating to your client's legal obligations and relationships. Once done, proceed to account for these arrangements wherever they may be relevant to your client's financial planning.

Here is a list of the items you should ask for, some of which you may have already obtained during the initial data collection stage.

- (1) Wills and trusts – These documents are necessary for putting together a plan for your client to dispose of his wealth to his chosen heirs upon his passing.
- (2) Contracts – Contracts (including those that may require a continuing monetary outlay by your client, and those that may provide him with an income source) can be expected to affect your client's current personal cash flow situation.
- (3) Joint ownership property – Property jointly owned can be a joint tenancy or as a tenancy-in-common. Knowing which of these forms of joint ownership applies to your client's property is important for planning his estate.
- (4) Marriage dissolution agreements – Alimony, property settlements, pre-nuptial agreements and child-support agreements fall within this category. Whether he's the one receiving such payments, or is the one required to make them, they will have to be factored into the financial plan.
- (5) Business documents and materials – If the client is self-employed, how his business is organized from a legal standpoint (sole proprietorship, partnership, limited-liability company, or corporation) will impact his exposure to legal liability, the way his business will be taxed, and several issues relating to constructing a financial plan.

(6) Business transfer/continuation agreements and plans – Any documents pertaining to his plans and agreements aimed at continuing or disposing of his business (including insurance policies to implement such plans) should be located. Unless your client has made reasonably detailed plans for his business to continue upon his death or disability and has a workable plan to fund them -- whether by insurance or an accumulated side fund -- as a practical matter, it is extremely unlikely that his business will survive as a going concern.

1.8.3 Analysing and Evaluating the Client's Financial Status

After constructing the net worth and cash flow statements, you can proceed to analyse the client's financial situation relating to:

- Liquidity
- Solvency
- Creditworthiness
- Gearing
- Quality of assets

More detailed discussion on the tools and methods to be used for evaluation of financial statements will be presented in Chapter 5.

1.8.4 Developing and Presenting Financial Planning Recommendations and/or Alternatives

Strategies are detailed plans that you devise to help your clients achieve their objectives. Working with clients to identify objectives is the easy part. Devising strategies to achieve them, and getting the client to stick to those strategies, is more challenging. For example, it is likely that many clients would want to retire early, but far fewer are willing to work at a plan that will allow them to do that.

As a planner, you will analyse and evaluate your client's current financial status, needs, insurance coverage, investments, taxation liability, retirement vehicles, benefits, etc. You will use your general assumptions about retirement age, life expectancy, income needs, and economic trends to assess your client's current likelihood of reaching his goals. Based on his criteria, you will then prepare a financial plan that will generally include a statement of his current situation and your recommendations, to help him achieve his goals.

Common Recommendation Strategies

Customization is the hallmark of any financial plan. It is not possible to come out with a pre-packaged financial plan replete with all possible ideas and solutions to meet the needs of all your clients. Each of them is unique; your recommendations and strategies for each of them should therefore be unique. A customized plan may include several major activities:

Retirement Planning

These days, retirement often stretches 30, 35 years or more. That means your client's retirement income may have to last longer than expected. By planning before they retire, clients not only reduce the likelihood of outliving their savings, but also increase their chances of maintaining their desired lifestyle throughout retirement.

Estate Planning

For estate planning, most clients usually require the help of a planner. As a planner, you will advise your client on the need to consider how, and to whom, he intends to distribute his estate and the potential tax reduction and payment strategies that can help him ensure that more of his estate goes to those whom he has designated rather than to others.

Business Succession Planning

If the client owns a business, he may seek your assistance to assess the impact his business has on his financial wellbeing and future financial goals. He may want to sell his interest at retirement or establish the criteria for transferring ownership upon his death.

Investment Planning

The client may need your recommendations and assistance in choosing the types of investment assets that will help meet his financial goals and situation.

Budgeting

At this stage, it is appropriate that a budget be prepared for your client. A budget is a financial document used to project future income and expenses. With it, you can establish for the client whether he can continue to enjoy a certain lifestyle.

Ultimately, it shows where your client's money is coming from, how much he has and where it will be going to.

The format of the budget should be like a cash flow statement, except that a budget is concerned with future income and expenses whereas a cash flow statement shows past transactions.

Presenting Recommendations to the Client

When presenting your recommendations, you should make reasonable efforts to assist your client in understanding how the recommendations will impact on his ability to achieve his goals, needs and priorities. In doing so, you should avoid presenting your opinion as fact.

You should also communicate the factors which are critical his understanding of the recommendations.

These factors may include, but are not limited, to:

- Personal and economic assumptions.
- Interdependence of recommendations.
- Advantages and disadvantages.
- Risks; and/or
- Time sensitivity

It is your duty to indicate to the client that even though your recommendations may meet his objectives, changes in any personal and economic conditions could alter the intended outcome. These changes may include, but are not limited to legislative, family status, career, and investment performance and/or health changes.

In addition, if there are conflicts of interest that have not been previously disclosed by your client, now is the time to address them as they may have a bearing on your recommendations. Presenting recommendations provides you an opportunity to further assess whether the recommendations will meet your client's expectations, whether your client is willing to act on your recommendations, and whether modifications are necessary.

Periodically, you should review your client's plan with him and recommend revisions where appropriate to ensure that the plan meets his objectives. The client may also seek your assistance in implementing recommendations and coordinating with other professionals such as accountants, solicitors, and real estate agents.

Format and Contents of a Financial Plan

The financial planner needs to lay out his proposal to the client in clear and concise terms. It should be a document that the client can easily follow and gives a clear picture of the progression he can expect - from the beginning to the point where his goals and objectives are reached.

The plan should be written in a logical manner and not be overwhelming with unnecessary information. Significant points should not be lost or buried.

The financial plan, in writing, should have the following:

Cover Sheet

A cover sheet should clearly identify the names of the client and the planner. The document should be accompanied by a covering letter that relates the outlined plan.

Executive Summary

The plan should start with an executive summary which provides an overview and outlines the principal points. It is important that this summary be brief; no more than two pages. Its purpose is to give a synopsis and at the same time, just enough information for the client to see how his needs can be met. Divided into sections, this could include:

- Summary of the client's present position
- Objectives
- Strategy summary
- Projections

Balance Sheets and Current Net Worth

Detailed balance sheets and current net worth data must be obtained from the client. The types and nature of his investments and their duration must be known. In the plan you are looking to summarize all items. The purpose of putting a net worth calculation in the plan is to seek the client's confirmation of the accuracy of his position.

Cash Flow

Cash flows can be very significant to the client especially when he is reliant on the income. Establish what the client's income needs are. If your client is about to retire, discuss with him the amount he needs to support himself in retirement. This will be the amount that you will aim to produce as income from his investments. In this case, the plan needs to include a projection of the desired income over the next 12 months, showing the expected monthly return. The investments proposed may not produce a regular monthly income; some may be quarterly payments. A monthly income table will give the client a clear picture of the time his income will be received.

Income Tax

The tax implications of any aspect of the plan need to be brought to the client's attention. This would include pointing out any areas where income tax liability may be incurred. What is his current tax liability and how will this alter the proposal? What taxes will arise from the proposed investments? You will need to explore with your client the various ways in which his affairs could be made more tax efficient.

Discuss the circumstances under which tax losses or tax offsets might be applicable. Enlighten him on any tax reform proposals that could affect his financial goals.

Risk Management and Insurance

Review your client's current insurance status and bring any deficiencies to his attention, extending your review to the principal covers he has. Life insurance may be required to meet your client's debts as well as providing for dependants. Disability cover could provide life-time income in the event of disability, and health and trauma covers could meet medical and other lump sum costs. Any deficiencies in general insurance, too, need to be brought up. Even where the planner is providing the general insurance cover, the client should be referred to an insurance broker to for more in-depth advice.

Investments

The investments section of the plan should spell out the client's current investment position and the investment programs recommended by the planner. An accompanying analysis should illustrate how the proposed program will meet the client's objectives. This explanation should be concise and logical for the client's easy understanding. An accurate and up-to-date summary of relevant research supporting the recommended investments should be included to furnish the client with comprehensive information.

Retirement Planning

The plan should always discuss retirement provisions. Planning for retirement should be a priority, even for young people. Even if the client indicates no interest in the need for retirement planning, the subject should still be drawn to his attention. Some of your clients may be young people to whom retirement planning registers little interest. Others may be facing imminent retirement, in which case planning would take on greater urgency. In the latter's case especially, you should discuss roll-over funds and income streams.

In addition, the different tax positions that can arise and the potential application of reasonable benefit limits also need to be mentioned. This could be rounded off with a recommended strategy. Failure to address retirement options would represent a serious deficiency in the plan. It may even be considered negligence on your part should questions be raised in the future.

Estate Planning

The estate planning section of the plan deals with the distribution of the client's estate and the provisions he wishes to make for his dependants. The drawing up of wills and appointment of power of attorney are considered at this point. The need for documenting this should be explained to the client. Provision for dependants should be made not just in a monetary sense but also relating to guardianship, where applicable. Monetary provisions may necessitate the use of insurance covers and trusts. You may need to educate your client on the different types of trusts, their functions, and benefits. He should also be advised of any potential tax issues and their effects on his retirement fund. Estate planning is not limited to matters relating to wills. Assets outside the estate may also need consideration.

Assumptions

Use realistic assumptions and state them clearly in the plan. The use of realistic projections is an area that the authorities are continually warning product providers about.

If tax rates are used, state what years the rates apply to. The same applies for any pension benefits or calculations used. When showing future inflation rates use realistic figures. Cite a reputable source for the figures. When considering inflation, the client's retirement life expectancy must be kept in mind. If using life expectancy figures as part of the calculation, point out to the client that these are average rates. Remember that 50 per cent of people live longer than the projected life expectancy figures. If you have provided an income to last for the period of the life expectancy figures, then 50 per cent of the time this will be inadequate.

Recommendations

When discussing suitable products, you need to explain each product's performance, benefits, and potential tax issues. It is very important to explain why a particular product is beneficial, how it meets your client's objectives and how it fits his risk profile.

If other strategies are available to meet his goals, mention them briefly, even if they have already been discussed at an earlier interview.

Your recommendations and justifications need to cover all strategies in the plan and must be tailored for the client's situation. The planner must always have a reasonable basis for the recommendations he makes. Apart from it being a professional approach, it is required by law that a planner must undertake adequate product research relevant to the client's investment objectives, risk profile, financial situation, and personal needs. A recommendation should only be made if these criteria are met.

Implementation

The plan needs to include a section indicating how the recommendations will be implemented. This is subject to the client's agreement to proceed with the steps outlined thus far. At this stage it is important to clarify the individual steps that should be taken by the client and the planner, as well as when these actions should take place.

Periodic Reviews

The client's position and circumstances are dynamic; there is a good chance that they will need to be adjusted periodically to consider any changes that arise. Regular reviews, at least once every 12 months, should be made. The time lapse can be even shorter should circumstances call for it, as in the case of changes in laws.

The annual review needs to take all aspects of the plan into account. Much of the focus will be on investments and their performance, but this should not be the only focal point.

Whatever the changes in your client's circumstances, - from his health to family issues – they need to be explored as they may affect his goals. Don't assume that he will automatically keep you informed - things that happened a while back may slip his mind. By asking questions, you will be able to update your client's file.

First, make sure you update the data file you have compiled at your initial meeting with the client. With fresh information now available, check the critical areas. Is the plan still sound? Is the investment portfolio suitable against the current economic climate? Is the asset allocation still valid or is some rebalancing needed? You may also find that as clients become more familiar with investments, their investor profile may change.

The Importance of Regular Financial Review

Discuss the importance of and the need for continuous review, and re-evaluation of the financial plan in the context of the clients' changing financial needs and circumstances.

After financial plans have been implemented the next step is monitoring and reviewing. A regular review of clients' financial plan, portfolios, and strategies relative to his circumstances and market conditions is of paramount importance to the financial adviser. Regular financial review should in fact be part of the overall financial strategy as well as an integral value proposition the adviser brings to the client experience.

A proper review creates further value for the client. It brings continuity to the financial strategies initially put in place with the adviser further enhancing his credibility. In a very tangible way, the adviser is showing care to his clients, and this can only engender trust in that professional relationship. A review properly and professionally done can only bring many more business opportunities from satisfied clients for the adviser.

Reasons for regular financial reviews:

1. Client's personal situation may have changed

Client's personal situation change constantly. However, some changes can be drastic or significant and may require altering an existing plan. Changes like a job change, divorce, having a child, buying a home, retiring, getting married, losing a spouse, etc. can alter client's spending and savings.

2. Client's lifestyle and financial goals may have changed

When personal situation changes, client's goals may change with it. As such, it is important that the adviser review client's financial situation and plan to ensure that steps are in place to achieve changing goals.

3. Changes in market and economic conditions

Financial planning comprises of many assumptions like inflation rates, income growth rates, investments rates etc. which keeps on changing with the change in the economic factors. Such changes impact client's investment portfolio necessitating adjustment, rebalancing or even a change in investment strategy.

4. Client could be affected by changes in legislation (i.e., CPF and retirement policies)

By reviewing client's financial situation, the adviser can identify what needs to be done to deal with the changes in legislation or policies that impact the client's financial plan. Some of these changes may include CPF/SRS contribution limits, tax rates, estate taxes etc.

5. Client's estate plan may have fallen out of date

Client rarely review their estate plan in a timely manner. However, if done properly it can ensure client's money are inherited by the right people at the right time. The financial adviser can save the client's friends and family a lot of trouble and heartache with regular review of his estate plan and keeping it up to date with his wishes.

6. Client's insurance needs may have changed

Insurance is really an investment in peace of mind. Yes, it is an expense that can sometimes feel unnecessary. But if the unexpected happens insurance can save a lot of additional heartache that could be caused by the financial stress of dealing with the aftermath. Changes to client's personal, family or work situation can all impact his insurances.

7. Client's lifestyle derailing his financial aspirations

Clients may find themselves overspending or accumulating unhealthy debt levels. Sometimes it isn't even a matter of their debts increasing but more so the frustration that they worked so hard and yet their debts just don't seem to get smaller. A review can help to identify ways the client can pay off more debt or examine spending patterns. This can free up cash flow, bring the client's financial situation back to health and his financial plan back on track.

8. Revisiting due diligence process with clients

Financial advisers often take for granted that client's due diligence process stops at the acquisition stage. However, given heightened compliance requirements, it is imperative the adviser factor in ongoing due diligence checks and updates with clients. The best time to do this is during a review session. The review allows the adviser and his firm to update "Know-Your-Client" record of the client, ensure there is no suspicion on any Money Laundering issues surrounding client's sources of funds as well as other relevant compliance requirements.

The simplest way to ascertain and update client status and information is just to ask the client. His identity is typically verified with proven documents in the initial engagement. The review process is to update his profession and to check if he might now become a politically exposed individual. Suspicion of money laundering usually only arises from transactions or unusual customer requests. The adviser and his firm would do well with a structured approach to financial review and fact find to ensure compliance with required client due diligence.

Compliance and Legal Requirements

To meet legal and other requirements, full disclosure of details on your part is imperative. The professional planner's letterhead must clearly indicate his identity and who he represents, including the fact that he is representing a licensed dealer. Any potential conflict of interests should be stated - for instance, if the planner is promoting the products of a company in which he has a financial interest.

All fees associated with investments should be disclosed; your client should be able see a cost breakdown. Your fees and charges must be listed clearly. The same applies to all commissions payable to the planner in relation to products recommended.

In your discussions with your client, gather as much information as you can. The data will form the foundation on which the plan is built. It is advisable to record as much of the information into the plan as possible, as long as it is relevant. In this way, if any details are incorrect the client will have the opportunity to make the necessary amendments. Putting the information into writing also reduces the risk of incorrect assumptions.

Disputes before tribunals or in court often revolve around things said or not said, where opposing parties each have a different recollection of events. (It is remarkable at times how people can remember a conversation that took place ten years ago!). This problem can be circumvented by recording all significant points in the plan. If any facts are incorrect, the client can raise them up and the matter can be remedied before any problem surfaces.

1.8.5 Implementing the Financial Planning Recommendations

The client is entitled to accept or reject any recommendation as well as to retain and/or delegate implementation responsibilities. If he decides to accept some or all the recommendations, he may subsequently seek the help of the planner to implement them.

Implementation involves assisting your client to act on the strategies and recommendations you have provided in the financial plan.

In such a situation, your responsibilities as a planner may include, but are not limited to the following:

- Identifying activities necessary for implementation.
- Determining the division of activities between you and your client.
- Referring to other professionals.
- Coordinating with other professionals.
- Sharing of information as authorized; and
- Selecting and securing products and/or services.

If there are conflicts of interest, sources of compensation or material relationships with other professionals or advisors that have not been previously disclosed, it is incumbent upon you to immediately inform your client.

1.8.6 Monitoring the Financial Planning Recommendations

Nothing lasts forever – not life, not diamonds, and certainly not a personal financial plan. A lot of things can happen in life that may make it advisable for your client to review his financial plan and, if necessary, to make changes. The recommendations and strategies you have provided will then also need to be reviewed and updated to reflect changed circumstances.

As a planner, you will have to consider two categories of changes that your client may experience: those which have a direct monetary impact and those which do not.

Changes Having a Direct Monetary Effect

Some changes will have a direct and immediate monetary effect on the client's financial plan, for instance:

- The cost of his goal increases or decreases.
- His financial ability to save the required amounts increases or decreases.
- The yield (interest, dividends, and capital gains) on his savings or investment increases or decreases.
- He needs (or wants) to change the time frame for attaining his goal.

You must expect that any of the first three items will change somewhat over time. When we talk about changed circumstances within the context of amending your client's financial plan, we mean changes that are large enough to potentially affect your client's journey towards his goal.

Changes Having an Indirect Monetary Effect

In addition to those changes that have a direct monetary effect, others may affect your client's financial objectives less directly. Though just as important, your client may not be immediately aware of their consequences on his financial planning.

These are the indirect changes that may have escaped your client's attention:

Tax Law Changes

Changes to the income tax rate can have a major impact on your client's financial plan. If, for example, tax rates go up, he may well have to count on increased savings or increased yields to make up for the additional money lost to the tax collector.

Business Climate Changes

Significant changes in the Singapore economy are likely to affect your client's plan. A general rise in interest rates, for instance, can be expected to drive down the value of his fixed-interest rate investments, making it necessary for him to increase his savings or increase his investment yield (which should be less difficult given the climbing interest rates). A general decrease in interest rates will likely increase the value of his fixed interest investments, but will make it more difficult to maintain his current yield on future investments.

Personal Family Changes

This category is probably hardest to get a handle on since any changes to the client's family circumstances can greatly affect his financial plan. Also, unless he keeps you updated, you would not be aware of the changes.

No list can cover all the things you should watch out for, but the following are some of the most common:

- New children (by birth, adoption, or by marriage), new grandchildren, nieces, or nephews
- Changes to marital status: divorce, separation, remarriage
- Health problems suffered by your client or his family members
- Job or business changes that significantly change his current income
- Sudden wealth (such as from inheritance), and sudden financial reverses (such as resulting from a legal judgment) His disability or death (or the disability or death of family members or business partners or associates)
- Changes in educational plans for his children or grandchildren.

Against a background of possible changes, it is essential that you recognize that comprehensive financial planning includes constant reviews of your clients' financial situation and evolving requirements. Not only is this a vital consideration, but it is also a sensible commercial objective.

The provision of continuous service is, for many clients, central to the relationship they seek from their financial planner. The majority who consult a financial planner do so because they themselves have little or no understanding of financial matters. Many have no desire or inclination to deal with all the intricacies entailed in financial planning, from staying abreast of economic changes to addressing changes in their personal life that may necessitate a change in their financial plan.

1.9 EFFECTIVE COMMUNICATION IN FINANCIAL PLANNING

Fiduciary and regulatory standards for financial planners vary, based on certification and licensing. In each case it requires the planner to pass exams on the rules, regulations, and technical aspects of financial planning to conduct business. Thus, practicing financial planners must achieve and demonstrate a minimal level of technical expertise. But there's a gap in our training and testing: it's in areas associated with social and emotional intelligence, understanding human motivations and emotions, and the development of interpersonal communication skills.

Clients expect planners to have competencies in these core areas: tax and estate planning, risk management, investment management, and finance. But consumers also seek client-centred relationships. While technical expertise is critical to successful planning, if a planner has little or no ability to establish a personal rapport or connection with the client, plan implementation and compliance suffer. And the client's failure to implement and comply with recommended changes sets the stage for an unsuccessful planning engagement.

Often, a financial planner can become a client's confidant, counsellor, and agent of change. Nurturing client-centred relationships necessitates greater focus on developing interpersonal communication skills, which ultimately matter more than technical expertise.

Many clients, especially those from the ageing baby boomer generation, seek planners who can help them make a smooth transition into retirement. They want advisors with technical expertise and—more importantly—a genuine, caring attitude. In fact, investors welcome long-term relationships with planners whom they can call upon in good or bad times. They are willing to retain planners whom they can trust and who will sincerely work towards strengthening that trust.

A planner will make the most of his interpersonal and counselling skills to forge deeper relationships with existing clients and cultivate new ones with potential clients.

However, it is not uncommon for technically excellent planners to lack the vital skills necessary for establishing emotional resonance and personal connections. Such planners may have to struggle to retain existing clients or attract new ones.

1.9.1 Transaction-based relationship vs. client-centred relationship

Clients' demands and needs are constantly changing. To meet their clients' expectations, today's planners need to develop their advisory skills and increase their understanding of human motivation and emotion.

Clients are shunning transaction-based relationships. A transaction-based relationship is a commodity, a contractual relationship lasting if transactions continue, potentially fraught with conflicts of interest. Clients prefer planners who will take an interest in their personal concerns, be it attaining enough money to maintain their standard of living during retirement or resources to care for elderly parents. It is human nature to worry about the uncertainties of the future. Client-centred financial planners take the time to deal with these concerns.

Some clients find that transaction-based services are sufficient for their needs. For the planner, the downside of this type of relationship is it is difficult to sustain, and it becomes less rewarding as commission rates gradually fall in the face of competitive pricing pressures. Since more investors are now seeking client-centred relationships, the transaction-based planner may find his prospects for new businesses dwindling.

Optimum level of communication

There is little opposition to the principle that good communication skills are important and that planners want to understand clients' goals and objectives. What is in contention is the degree to which a planner should pursue 'discovery conversations', and how to accomplish this discovery process efficiently.

The primary reasons for plan failure are botched interpersonal communication and failure to understand the client's motivations and emotions. The planner did not invest enough time in collaboration, making certain to draw out emotional blocks that prevent a change in client behaviour. In other words, the plans were technically correct, but failed the plan efficacy test - which is implementation and compliance.

Reasons for shifts in clients' needs

One possible reason for the shift of preference to client-centred planners is the dispersion of the family support system—for example adult children living away from parents. Daily stress, lack of family support, and not having close friends may be affecting the client's confidence and self-worth.

Many clients are now more receptive towards the professional services of financial planners. In fact, planners have become part of the socio-economic support system that enables individuals to lead more complete, fulfilling lives. Financial planners are becoming their clients' sounding board, counsellors, and life coaches, filling the gap left by a transient, disconnected, and stressed society.

Importance of interpersonal communication skills

Nowadays, many clients seek planners who demonstrate a real commitment towards strengthening their professional partnership. Planners who connect with their clients at the emotional level and develop a bond of mutual trust will experience greater success in plan design, implementation, and compliance.

Since plan failures lead to lost revenues and potential lawsuits, it behoves planners to seek additional training and education relevant to their calling. For clients who need an objective outside observer, the smart planner can step in and help clarify their clients' goals and objectives, mapping out prudent financial decisions and establishing systems that support positive client behaviours.

1.9.2 Techniques for interpersonal communication

There are many techniques which successful financial planners may use to improve their interpersonal communication skills and, thus, establish good relationships. Some of them are:

Listening and feedback

Financial planners must develop their listening skills and be sensitive to the feelings of their clients if they want to forge lasting mutual relationships. Listening and feedback are important ingredients in communication. Clients want to know that their ideas have been heard and understood. Repeating what the client has said and narrowing the distance between you and your client are excellent techniques to demonstrate your empathy with his feelings.

Also, financial planners must explain concepts and ideas in a cogent manner by using appropriate words or phrases, and by encouraging their clients to visualize problems and solutions. They should also deal with clients who are angry or excited by lowering their voice and adopting a gentle tone and manner.

To plan effectively for the client, the planner's process must include feedback. Feedback is accomplished by responding to statements and behaviour. The effective planner uses physical signs to acknowledge that he understands what the client is saying. He can accomplish this with a simple nod of the head, a hand gesture or a change in facial expression. One technique often used by financial planners is to restate what the client expressed.

For example, if the client is apprehensive about removing his money from a bank account and investing it in the stock market, the financial planner can acknowledge his understanding by reiterating the client's feelings. Repeating the client's thoughts aloud lets him know that you are listening, that you understand, and that you sympathize with his circumstances. To be an effective financial planner you must be a good listener.

The privacy of space

Another effective communication technique is the utilization of the space between you and your client. Here's a classic example of space invasion: a teacher is addressing a classroom and a student is being disruptive. The teacher approaches the student. The student feels his space being invaded and becomes uneasy. The result is that the student is brought back into the discussion. Closing the distance between you and your client indicates to him that you are in tune with his feelings and opinions. Conversely, increasing the space may send your client the opposite message.

Using proper words and clear signals

Financial planners can make their point effectively by selecting appropriate words or phrases. For example, during times of low deposit interest rates, a planner may be flooded with inquiries on how to increase investment incomes from clients who traditionally rely on the banking system as a primary investment vehicle. He can say words to this effect: "Yes, I can direct you to greater rates of return. First, I want you to get accustomed to using the four-letter word 'risk'. I will then describe the relationship between increased rates of return and increased risk."

A client can better understand certain techniques and concepts if he or she can visualize the problem and solution. For example, you may need to demonstrate that for retirement benefits to be significantly enhanced, portfolio restructuring must be commenced immediately.

Volume and rate of speech send obvious verbal signals. If a client is speaking loudly and quickly, he or she is probably angry or excited. These emotions tend to impair communication. To mitigate the situation, a planner who is a good communicator will take a proactive stance by lowering his voice and speaking more slowly than usual. His counterpart will naturally respond likewise. On the contrary, if the planner should match an angry client's tone in a like-minded manner, chances are, he will end up in an unwanted confrontation.

Be sympathetic and compassionate

As his business relationship with you progresses, the client may reveal a more intimate side of himself. He may feel comfortable enough to reveal personal information like his relationship with family members, his physical and mental health and even his marital problems. The planner must be sympathetic and compassionate when dealing with his client, even as he tries to help him achieve his financial goals.

The financial planner should not rush an engagement. Initial appointments should be fixed for a minimum of two to three hours so that the client has enough time to relate his problems and describe his goals in full.

1.9.3 Barriers to successful communication

Given the amount, and often wide-ranging types, of information that planners have to dispense to their customers, it is not uncommon for confusion and breakdowns in communication to happen. Part of the problem for many planners is that poor communication can result from many causes, and it is often difficult to know exactly what they are.

Below are some of the possible sources of barriers to successful communication:

- Language
- Technical content
- Lack of understanding of what the receiver wants or needs
- Inadequate feedback
- Emotional interference
- The degree of knowledge and expertise of the sender and the receiver
- The quality of the information sent
- The use of an inappropriate medium
- Lack of trust or honesty in the source
- Cultural differences
- Poor listening skills
- The position or status of the source

1.9.4 Essential skills for building relationships

Financial planners must be very careful not to force their feelings and opinions on their clients. When clients reveal their problems, they become vulnerable to the views of the "expert." By using diplomacy, the planner can gently determine the client's objectives. What the financial planner should not do is to dictate to the client. At the same time, the financial planner has an obligation to see to it that the client does not take any action that may be detrimental to his position.

One of the most important requirements to becoming a successful financial planner is the nurturing of a good professional relationship with the client. This should begin during the initial meeting. The more effective his communication skills and the more compassionate he is, the more successful the relationship will be.

If the mutual trust between planner and client is ever violated, the relationship risks severe damage.

Among the essential skills for building relationships are:

- Trustworthiness, sincerity, dedication, and extensive preparation
- Ability to break the ice with friendliness, good listening, questioning and observation skills
- Assuring the client of confidentiality and using tact when collecting information
- Empathy in resolving doubts and concerns, bearing in mind customers' personalities and backgrounds
- Follow-through action carried out with commitment and genuine caring.

On Service Quality & Client Complaints Management

Describe techniques to evaluate client satisfaction level such as maintaining regular communication or obtaining feedback with clients.

Describe a typical complaint handling, resolution, and escalation process.

Clients evaluate an adviser's service quality through timely delivering of promises made. In the first instance, the client expects the adviser to be a competent manager of his money and professionally steering his financial plan towards its objectives. Because the engagement is a long process, the maintenance of that relationship with the client over time can be made mutually positive through purposeful service quality. It can include being available when called upon, updating the client on his financial plan voluntarily especially when there are changes in economic or political scenario, providing a personal touch such as remembering important dates of the client such as birthdays or anniversaries, etc.

Regular and timely financial reviews as mentioned before are great touch points and communication opportunities for both the client and adviser. Communication oils a relationship and prevents misunderstandings and negative issues from exploding into difficult proportions. When an adviser makes himself available to the client when called upon, or initiates timely communication opportunities with the client, he can quickly arrest client's dissatisfaction and prevent it from escalating.

Most complaints pertaining service levels or quality can be addressed in the following manner:

1. The adviser is to handle the complaint directly and immediately. In most instances, the adviser is in the best position to handle and resolve client's issues. To err is human, and most clients can be forgiving with the occasional lapses that do not turn out to be costly and can be rectified quickly.

In the event where complaint arises from investment performance or a portfolio loss, increased and focused client communication in providing explanation for portfolio losses is needed. Whether a change in investment tactics or a holding out on existing strategy, the adviser is to explain and solicit client's agreement for further actions to the situation.

Sometimes, the adviser may solicit the help of senior advisers, or management or specialist to assist in handling clients' complaints. The goal is to address client's dissatisfaction by providing attention, explanation, resolution and if need be, restitution if the form of some tangible token (e.g., shopping, or dining vouchers, etc)

2. In the event when the best efforts of the advisers or his superiors are unable to quell the dissatisfaction of the clients, the client may be referred to the company's customer service or relevant company's customer complaints resolution channels for further deliberation and action.
3. Outside of the company, the client may bring his grievances to The Financial Industry Disputes Resolution Centre Ltd (FIDReC). FIDReC an independent and impartial institution specialising in the resolution of disputes between financial institutions and consumers.

FIDReC provides an affordable and accessible one-stop avenue for consumers to resolve their disputes with financial institutions. It also streamlines the dispute resolution processes across the entire financial sector of Singapore. It is an affordable avenue for consumers who do not have the resources to go to court or who do not want to pay hefty legal fees.

Summary

Financial planning is not a one-off process. To ensure that their clients obtain maximum benefits from a financial plan, financial planners should regularly review their clients' status. To use a medical analogy, the planner should conduct regular 'health checks' on his clients and 'diagnose' changes in their profile or circumstances. The information he documents in the profiler goes beyond the routine details of an account application form. All data is filed for future reference for the mutual benefit and convenience of both client and planner.

Obviously, significant life changes such as marriage, birth of a child or a house move can create different financial requirements. Changes like these can affect a client's attitude to risk, which in turn, may require a change in investment strategy.

Client profiling should not be solely an exercise of form-filling and, instead, it should reflect a detailed examination of all aspects of a client's circumstances, aspirations, and goals. It provides a structure to discussions and ensures that the planner has a permanent record of the client's financial position at the point in time when the advice was given. It not only satisfies the requirement of knowing your customer but is also a most effective tool in assisting both client and advisor to achieve a consensus on how their business relationship shall be based. It highlights important areas of financial planning which could have dramatic consequences for the client.

Imagine the dilemma of the individual nearing retirement who has not saved or invested sufficient capital to maintain his family's livelihood, let alone his standard of living.

Careful financial planning, starting with client profiling, data collection, identifying goals and objectives and risk profiling, could be the remedy for financial insecurity.

A financial plan represents the planner's professional advice to the client. It incorporates:

- A thorough analysis of the client's position and the products in the marketplace. These two elements are matched to provide the client with a suitable proposal which will meet his financial needs.
- A showcase of the planner's knowledge and abilities. The client will judge the plan on its contents and presentation as will anyone else who is shown the document.
- Ultimately, the planner will be judged on the financial plan that he has tailored. It is his opportunity to demonstrate his expertise and competency. The accuracy demonstrated in the contents is extremely important; but the way the planner presents the plan is just as crucial. A well-developed plan can be let down badly by inferior presentation skills.

Chapter 2: Financial Planning Professional Ethics and Practice Standards

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Introduction

The collapse of Lehman Brothers and American International Group, Inc. (AIG), two of the largest financial institutions in the world and based in the United States, and Satyam Computer Services Ltd., a consulting and information technology services company based in Hyderabad, India, brought ethical concerns to the forefront of public scrutiny. The demise of these institutions has resulted in not only thousands of investors, including those in our neighbouring countries, but also employees of many companies, to lose all their retirement savings. The financial crisis has also provided a wake-up call to investors across the globe that held their entire investments or retirement savings in a single entity. The failure to educate those investors and employees about the importance of diversification was perhaps more than mere fiduciary oversight.

These headline-grabbing collapses are just some examples of how our modern maze of business models, methods of professional practice and investment strategies has substantially blurred traditional ethical boundaries.

A generation ago, the financial products and services available were simpler than they are today. For example, if someone wanted to buy into a unit trust fund, a unit trust consultant would place the order. If someone needed permanent life coverage, a whole life policy was issued. But now, planners must decide if this traditional approach is better, or whether the client would be better off buying any number of the diverse modern products available.

Even scrupulously honest financial planners now face real dilemmas when trying to do the right thing for their clients.

Like any other professionals, a financial planner has the responsibility to act in a professional manner, obey the law, avoid conflicts of interest, and put the interests of their clients ahead of their own interests. This means that as professionals, financial planners are required to act ethically towards their clients as well as the community they serve.

In this Chapter, we will be discussing about ethical practice in the financial planning industry and the Code of Ethics of FPAS. The topics covered in this part will include:

- Professional Ethics.
- The Client and Code of Ethics.
- FPAS's Code of Ethics.
- Principles of FPAS's Code of Ethics
- FPAS's Rules of Professional Conduct
- FPAS's Disciplinary Regulations

Learning Outcomes

1. Explain the importance of professional ethics
2. Describe how the adherence of code of ethics by financial planning professional will benefits their clients
3. List and explain the principles expressed in the FPAS's Code of Ethics

Chapter 2 – Financial Planning Professional Ethics and Practice Standards

2.1 PROFESSIONAL ETHICS

Professional ethics concern the moral issues that arise because of the specialist knowledge that professionals attain, and how the use of this knowledge should be governed when providing a service to the public.

Professionals like financial planners are subject to additional moral responsibilities in addition than those held by the population in general. This is because professionals can make and act on an informed decision in situations that the public cannot, because they have not received the relevant training.

For example, a layman cannot be held responsible for failing to save a car crash victim because he cannot perform an emergency tracheotomy. This is because he does not have the relevant knowledge. In contrast, a fully trained doctor (with the correct equipment) would be capable of making the correct diagnosis and carrying out the procedure and we would think it wrong if he stood by and failed to help in that situation. You cannot be held accountable for failing to do something if you do not have the ability to do.

This additional knowledge also comes with authority and power. The client places trust in the planner on the basis that the service provided will be of benefit to them. It would be quite possible for the professional to use his authority to exploit the client. An obvious example is that of the financial planner who carries out unrequired planning or advisory work for his clients to earn more money. It is likely that the client will not have sufficient knowledge to question what is being done, and so will accept the plan or advice and pay for it.

Questions arise as to the ethical limits of the professional's responsibility and how power and authority should be used in service to the client and society. Most professions have internally enforced codes of practice that members of the profession must follow, to prevent exploitation of the client and preserve the integrity of the profession. This is not only to the benefit of the client but also for the benefit of those belonging to the profession.

For example, a client may approach a planner to work on an investment project which is not approved by the relevant authority and is illegal. Whilst one planner may refuse to participate in the project on moral grounds, the client may find an unscrupulous planner who will be prepared to work on the project, thus saving the client the expense of seeking approval from the authorities.

Violation of professional ethics can come in many forms but in financial planning, the common violations include:

- Conflicts of interest – This occurs where the same financial planner or his firm represents both the investor and the product distributor or used to represent one side. In countries with the adversarial system of justice, a conflict of interest violates the right of each client to the undivided, zealous loyalty of his planner. Conflicts may also occur if the planner's ability to represent a client is materially limited by the planner's loyalty to another client, a personal relationship, or other reasons.

- Mishandling of client's money – Clients often advance money to financial planners for a variety of reasons. The money must be kept in special client trust accounts until it is earned by the planner or spent on planning fees or other expenses.
- Disclosure of confidential information – Planners are under a strict duty of confidentiality to keep information received during their representations confidential. In the absence of law to the contrary, planners may not reveal or use the information to the detriment of their clients.

Disciplinary codes allow the profession to draw a standard of conduct and ensure that individual planners meet this standard. If they do not, they will be disciplined by the professional body. This allows those planners who act with conscience to practise in the knowledge that they will not be undermined commercially by those who have less ethical qualms. It also maintains the public's trust in the profession, ensuring that the public will continue to seek their services.

2.2 THE CLIENT AND THE CODE OF ETHICS

Most consumers would want the financial planners they work with to treat them fairly and honestly. Unfortunately, that's not what always happens. Even ethical financial planners face demands on their business lives that often do not allow them to focus enough attention on ethical issues.

A Code of Ethics is the cornerstone of any recognised professional designation. Doctors, dentists, lawyers, accountants, and financial planners, for instance, must adhere to a certain code of ethics within their respective professions. The code of ethics would normally define the client's rights and the way he would expect a financial planning professional to treat him.

For professionals, adhering to the code of ethics established by their respective professional organisation means that he agrees to provide services in the interest of his clients and with the highest ethical and professional standards and at the same time, uphold and promote the interests of his profession for the benefit of society.

With the professionals adhering to a code of ethics, clients can expect:

- A professional with integrity, one who earns his trust and treats him honestly.
- The professional's advice to be objective and focused solely on the client's needs.
- The professional to be competent and well-educated about the financial planning profession, with a continuing commitment to stay informed about new developments in the financial industry.
- To be treated fairly and be told clearly how the professional relationship between the client and the professional will work, how the professional will be compensated, and any potential conflicts of interest that may arise.
- The professional should keep any personal information provided confidential.
- The professional should have all the required licenses or credentials necessary to do the work the client requires of the planner.

- Finally, the professional should be diligent in performing any work they agreed to do, not only developing a financial plan, but also helping to implement it.

One of the advantages for clients who work with a professional who is subject to these rules is that there is an established procedure to follow if the professional violates ethical responsibilities.

With the increasing complexity of the financial world, it's increasingly important for clients to find financial planners they can trust. By choosing a financial planner who is governed by strict ethical principles and guidelines, the client can feel more confident knowing that he will get the advice and assistance he deserves.

2.3 FPAS'S CODE OF ETHICS

FPAS maintains the professional standards necessary for competency and ethics for its members in Singapore. FPAS's Code of Ethics and Professional Responsibility (the "Code") is the foundation of its members' interactions with their clients.

The Code is formulated to enhance the ethical behaviour and judgement of the individual members of FPAS with the intention of achieving the following aims:

- To establish a standard of ethical behaviour for financial planning professionals based on trustworthiness and values that can be accepted, are held, or upheld by any one person.
- To uphold the spirit of responsibility and social responsibility in line with the relevant legislation, regulations, and guidelines for administrating financial planner professionals.

There are nine principles expressed in the Code, namely:



Further to promoting an ethical environment for clients to receive quality financial services, the Code is also in line with “global standards and expectations” and advances the portability of the Certified Financial Planner™ designation around the world.

Members in different disciplines may be compensated by a variety of means. Regardless of whether they are actively involved in financial planning or in other areas of financial services, all members must subscribe to the same Code based on the eight Principles. These Principles recognize the individual member’s responsibilities to the public, clients, colleagues, employers, and the profession.

The principles expressed in the Code, which are applicable to all individual members of FPAS, are reproduced below:

- **Principle 1 – Client First**

Place the client’s interests first.

Placing the client’s interests first is a hallmark of professionalism, requiring the member to act honestly and not place personal gain or advantage before the client’s interests.

All members of FPAS have a primary professional obligation to their clients. The principle of Client First calling for members to place the client’s interest first is considered a hallmark of professionalism, requiring the members to act honestly and not place personal and/or employer gains or advantage before the client’s interest. This statement emphasizes the centrality of the client in the financial planning relationship and ensures that the client’s interest always comes first.

This principle does not mean that the client’s instructions are to be always followed without question. There are situations when the client’s interests and the client’s instructions may differ or situations when the outcome may be illegal. For example, if a member is being instructed by one of his clients to implement an investment proposal that may lead to an illegal outcome, he may not act on such an instruction after having explained to the client the reason(s) for doing so.

This principle is consistent with the fiduciary duty of loyalty and suggests that a member who undertakes to act on a client’s behalf must not misuse his position for his own or a third party’s possible advantage.

In short, members shall place the client’s interests first; requiring them to act honestly and not place personal gain or advantage before the client’s interest.

- **Principle 2 – Integrity**

Provide professional services with integrity.

Integrity requires honesty and candour in all professional matters. Members are placed in positions of trust by clients, and the ultimate source of that trust is the member’s personal integrity. Allowance can be made for legitimate differences of opinion, but integrity cannot co-exist with deceit or subordination of one’s principles. Integrity requires the member to observe both the letter and the spirit of the Code of Ethics.

Upholding the principle of integrity is central to maintaining the probity of a member's conduct in his dealings with clients, in the exercise of public powers, and in the proper use of public resources. Observing the principle of integrity supports the reciprocal relationship of trust that must exist between a member and his client.

Being a professional, a member of FPAS must adhere to the highest standards of integrity if he is to enhance public confidence and trust in the services he offers. A member must avoid any conduct that would lead to a breach of trust of the position that he holds. For example, if he tells some of his clients that they will be able to avoid tax on certain income, when he knows they will not and he then tells them the following week they will not be able to, this could be perceived as not acting with integrity.

A member is likely to face issues that will test his integrity when dealing with clients. What a member considers as acting with integrity may be different from what his fellow members consider.

Acting with integrity has a lot to do with an individual's own moral standards; it is very hard to guide someone if they do not normally act with integrity.

In short, members shall observe high standards of honesty and integrity in conducting their financial planning business and in the provision of financial planning services.

- **Principle 3 – Objectivity**

Provide professional services objectively.

Objectivity requires intellectual honesty and impartiality. Regardless of the services delivered or the capacity in which a member functions, objectivity requires members to ensure the integrity of their work, manage conflicts and exercise sound professional judgment.

- **Principle 4 – Competence**

Maintain the abilities, skills, and knowledge necessary to provide professional services competently.

Competence requires attaining and maintaining an adequate level of abilities, skills, and knowledge in the provision of professional services. Competence also includes the wisdom to recognize one's own limitations and when consultation with other professionals is appropriate or referral to other professionals necessary. Competence requires the member to make a continuing commitment to learning and professional improvement.

This principle requires members to provide services to clients competently and maintain the necessary knowledge and skills to continue to do so in those areas in which they are engaged. A member should only offer services in areas in which the member is competent.

A member may develop a network of knowledgeable and skilled specialists in the fields required for effective financial planning. If the services of third parties are engaged, the member must carefully vet these other specialists to ensure they will provide what is needed with the highest standards of ethics, professionalism, and state of the art practices.

A member should also receive continuous training to competently provide financial planning services. Training options vary depending on the needs of the member and the investment the member is willing to make. Engaging in financial planning activities without proper training may violate the Code of Ethics as it prohibits a member from offering such services unless he or she is qualified to practise in those fields.

In short, members shall provide competent financial planning services and maintain the necessary knowledge and skill to continue to do so in those areas in which the Member is engaged.

- **Principle 5 – Fairness**

Be fair and reasonable in all professional relationships. Disclose and manage conflicts of interest.

Fairness requires providing clients with what they are due, owed or should expect from a professional relationship, and includes honesty and disclosure of material conflicts of interest. It involves managing one's own feelings, prejudices, and desires to achieve a proper balance of interests. Fairness is treating others in the same manner that you would want to be treated.

Under the principle of Fairness, a member is expected to be ethically sound and exercise professionalism in his dealings with clients. He should strive to achieve the best possible results for his clients, always putting the clients' interests ahead of his own.

Being fair to clients also means providing them with full disclosure of material information that enables the clients to determine expected risks, benefits, fees, or conflicts.

A member should not favour one client over another. Treating the clients fairly could mean offering services that lead toward outcomes such as:

- The clients can be confident that they are dealing with a professional where the fair treatment of customers is central to his culture.
- The services offered by the member are designed to meet the needs of the clients and are targeted accordingly.
- The clients are provided with clear information and are kept appropriately informed before, during and after the point of sale.
- Where the clients receive advice, the advice is suitable and takes account of their circumstances.
- The clients are provided with recommendations that perform as the member has led them to expect, and the associated service is both of an acceptable standard and as they have been led to expect.

In short, members shall provide financial planning services in a manner that is fair and reasonable.

- **Principle 6 – Diligence**

Provide professional services diligently.

Diligence requires fulfilling professional commitments in a timely and thorough manner, and taking due care in planning, supervising, and delivering professional services.

The principle of diligence requires members to exercise their duties and responsibilities to the best of their ability. There is an expectation that that a member exercises proper application, care, and attention when carrying out their work. As responsible and accountable professionals, members are required to ensure that their decisions and actions are in the best interests of their clients.

The way a member performs his role must be based on the optimum use of his knowledge and skills. A member must also exercise a duty of care to those the member has contact with in the course of his work duties, or those who may reasonably be affected by the work he does.

In short, members shall act with due skill, care, and diligence in the provision of financial planning services.

- **Principle 7 – Professionalism**

Act in a manner that demonstrates exemplary professional conduct.

Professionalism requires behaving with dignity and showing respect and courtesy to clients, fellow professionals, and others in business-related activities, and complying with appropriate rules, regulations, and professional requirements. Professionalism requires the member, individually and in cooperation with peers, to enhance and maintain the profession's public image and its ability to serve the public interest.

Professionalism is a systematic process of getting desired results while displaying pleasant behaviour and conduct that is appropriate and expected in establishing mutually beneficial business relationships. In addition, it provides an inner compass that helps to positively influence one's actions.

To a member, professionalism would mean displaying these behaviours:

- Respect: The foundation of every business relationship is respect, and this means that the member honours his role in fulfilling the needs and solving the problems of his clients.
- Quality assurance: Clients expect quality assurance, which means that the member cares enough about the quality of his work to check it over before presenting it to the client. As a professional, the member is expected to know the detailed expectations of his clients.
- Proactive: Being proactive can save the client time and money in the long term. Professionalism entails foresight and an accurate analysis of what the real problems are or what they may be before they need to be solved.
- Responsive: Responsiveness is crucial to client retention, and it includes, but is not limited to, how quickly and efficiently the member responds to requests, complaints, or any calls for action.

- Timeliness: The ability to meet deadlines can speak volumes about the member's professionalism. Also related to timeliness is punctuality. Showing up on time communicates volumes about a person such as: respect (for another's time), courtesy, consideration, respect, and organization - just to name a few.

In short, members shall ensure their conduct does not bring discredit to the financial planning profession.

- **Principle 8 – Confidentiality**

Protect the confidentiality of all client information.

Confidentiality requires client information to be protected and maintained in such a manner that allows access only to those who are authorized. A relationship of trust and confidence with the client can only be built on the understanding that the client's information will not be disclosed inappropriately.

As a public official, members have access to certain information about their clients which must be treated as confidential, especially where it concerns the personal affairs of individuals and commercially sensitive business information.

A member must ensure that he makes every effort to ensure confidentiality of a client's information. The following is an example of inappropriate release of a client's information.

A financial planner gives a client's name and address to a company marketing a new investment product without the client's consent in return for some incentives. The disclosure of information was improper because it did not have the consent of the client, and the disclosure was not authorized for a purpose, other than the purpose of planning for the financial affairs of the client.

However, specific permission to disclose information that is already available in the public arena, for example, legislation, publications, Internet, policies or press releases, is not required. Nonetheless appropriate acknowledgement of the source must be given.

In short, members shall not disclose any confidential information without the specific consent of the provider of that information unless compelled to by law or as required to fulfil their legal obligations.

- **Principle 9 – Compliance**

Complies with all existing laws and regulations

Compliance requires members to know, keep abreast of, and comply with the latest developments in terms of the regulatory framework of the governing authority wherein the member operates the financial planning activities, as well as the laws and bylaws of the professional associations the member is a part of, including FPAS.

Members must maintain knowledge of and comply with the Memorandum and Articles of Association of the FPAS, the FPAS's Code of Ethics and Rules of Professional Conduct, and all applicable laws, rules and regulations of any government, governmental agency, regulatory organisation, licensing agency or professional association governing the members' professional activities.

2.4 FPAS'S RULES OF PROFESSIONAL CONDUCT

The Rules of Professional Conduct are specific standards that shall apply to all classifications of membership, unless otherwise stated. Every member shall adhere to the rules set out in this Article in their professional activities and conduct, and the FPAS may enforce the observation of the rules.

General Conduct

Rule 1

In the conduct of professional and business activities, a Member shall not engage in any act or omission of a misleading, deceptive, dishonest, or fraudulent nature.

Disclosure Statements to Prospective Clients

Rule 2

A Member shall ensure that prospective clients are clearly informed in writing about:

- (a) the identity of the Company responsible for the advice and, if the advice is provided through a Representative, the identity of the Representative.
- (b) the nature of the services offered.
- (c) the method of remuneration, fees, commission, or charges associated with the delivery of services.
- (d) the access to internal and external complaint handling mechanisms; and
- (e) the nature and extent of any significant financial relationship or connection with a product supplier and any other material conflict of interest.

Rule 3

A Member shall clearly disclose to all prospective clients the capacity in which they are able to provide financial planning services.

Financial Plan Preparation

Rule 4

At the earliest point in the relationship, a Member shall disclose in writing to the client if the Member is only authorised to sell or advise on a restricted range of products, and any other limitation of their capacity to serve the client.

Rule 5

In the provision of any written recommendation contained in a financial plan (or a transaction affected by Rule 18), a member must disclose to the client in writing that the Member, the Member's Principal, or an Associate in connection with the financial planning service will receive fees, commissions, or rebates from the sale of products made pursuant to the recommendations. The disclosure must be included in the recommendation prepared and issued by the Member.

Rule 6

If financial planning services are provided orally, a Member must disclose orally to the client the particulars described in Rule 5.

Rule 7

In preparing oral or written recommendations to clients, a Member shall collect sufficient information to ensure appropriate advice can be given.

Rule 8

In preparing oral or written recommendations to clients, a Member shall conduct or have access to, research on financial strategies and products that may be appropriate to achieve the client's identified needs and objectives.

Rule 9

In preparing oral or written recommendations to clients, a Member shall develop a suitable financial strategy or plan for the client based on the relevant information collected and analysed.

Rule 10

In preparing oral or written recommendations to clients a Member shall provide an explanation of the nature of the investment risks involved in terms that the client is likely to understand.

Rule 11

A Member must ensure all significant recommendations are made in writing. If any significant recommendations are given orally, then confirmation must be given in writing as soon as practicable.

Rule 12

A member shall not make any statements, orally or in writing, that misrepresent the services they or the Principal can provide, and the data or facts that are used to support any recommendation.

Explanation of Financial Plan

Rule 13

A Member must take reasonable steps to place the client in a position which the client is to comprehend the recommendations and the basis for the recommendations.

Financial Plan Implementation

Rule 14

In the appropriate circumstances, Rules 7 to 10 inclusive will not apply where there is an express documented instruction by a client to limit or restrict the scope of the financial planning service normally offered by the Member (e.g., an execution-only transaction service or advice limited to a particular area or product or where a client refuses to provide information sought). The client must be warned prior to implementing the relevant transactions about the consequences of the Member following these instructions.

Rule 15

A Member must implement all agreed recommendations in an accurate, efficient, and timely manner.

Rule 16

A Member shall confirm in writing to a client where a subsequent instruction given by that client significantly alters the financial strategy or balance of an existing portfolio under the supervision of the Member.

Client Service

Rule 17

Should an actual or potential conflict of interest develop after a professional relationship has been commenced, a Member shall promptly disclose in writing the conflict(s) of interest to the client. The Member must be able to demonstrate that the client was made aware of any actual or potential conflict of interest.

Rule 18

A Member shall not move a client or cause a client to move from an investment to another investment without explaining to the client, in terms that the client is likely to understand, the reasons for the move. The Member must demonstrate that the move is appropriate for the client.

Complaints

Rule 19

All Members must comply with the relevant FPAS Disciplinary Regulations concerning complaints handling, dispute resolution and disciplinary procedures.

Document Administration

Rule 20

A Member shall ensure that information and relevant documents given to or gathered by the Member are securely stored to establish at any time that it has complied with the FPAS' Professional Standards and the information and documents must be available for inspection when required. Such records shall be retained for seven years from the date the document was last acted upon and may be destroyed thereafter.

Rule 21

A Member must, when requested to do so by a client, give to the client or another person authorised by the client, any original documents (not photocopies) related to the provision of financial planning advice for which the client has paid or will pay for. This does not include documents which have been prepared or received by the Member in undertaking the advisory task, such as internal notes, memoranda, quotes, or other working documents.

FPAS Reporting and Requirements

Rule 22

A Member shall not misrepresent the status of their Membership of the FPAS.

Rule 23

A Member shall not misstate their authority to represent the FPAS. Specifically, a Member shall not write, speak, or act in such a way as to lead another to believe that the Member is officially representing the FPAS, unless the Member has been duly authorised to do so by the officers, directors or Regulations of the FPAS.

Rule 24

Unless compelled to by law, or as required to fulfil a legal obligation, any person who by reason of their membership in the FPAS or connection with the FPAS is exposed to, learns of, or has access to information and knowledge concerning the FPAS and/or Members must keep confidential all such information and knowledge and is not entitled to communicate or divulge that information or knowledge or any part thereof.

Rule 25

A Member shall advise the FPAS within two business days of any material change to their Authorised status.

Rule 26

A Member must co-operate with the FPAS in all aspects of any investigation or compliance review as authorised pursuant to the Articles and Regulations of the FPAS.

Rule 27

A Member shall effect and maintain professional indemnity insurance in accordance with the requirements prescribed by the FPAS from time to time. A Member must notify the FPAS in writing immediately of any material change to its professional indemnity insurance.

Minimum Education and Competencies

Rule 28

To maintain and improve professional knowledge, skills and competence, a Member must satisfy all continuing professional development requirements set by the FPAS from time to time.

Rule 29

A Member shall offer advice only in those areas in which the Member is competent. In areas where the Member is not professionally competent, the Member shall seek the counsel of qualified individuals and/or refer clients to such parties.

Rule 30

A Member shall have reasonable and appropriate standards for the appointment of Representatives.

Supervision

Rule 31

In determining whether a Member has complied with the FPAS's Professional Standards, any conduct by its Representatives or employees which relates to conduct of the Member's financial planning business shall be treated as the conduct of the Member.

Rule 32

A Member shall establish and maintain written policies and procedures for the effective control and conduct of its business. This rule does not apply to a Member with only one practising Representative.

Rule 33

A Member shall have a written agreement with its Representatives which defines the rights and obligations of the Member and the Representative. In the case of an employee Representative, a statement of conditions and duties would satisfy this rule. This rule does not apply to a Member with only one practising Representative.

Rule 34

A Member must maintain an effective system of supervision of all Representatives' activities, performance, training, and recommendations made to clients.

2.5 FPAS'S DISCIPLINARY REGULATIONS

All FPAS members are subject to the FPAS' Disciplinary Regulations. Any alleged breach of the FPAS' Professional Standards shall be investigated by an Investigation Committee appointed by the Executive Committee, and if warranted, referred for further disciplinary action. Serious breaches of the Professional Standards may result in heavy penalties as stated in the Constitution of the FPAS or amendments made thereto.

Discipline and Professional Conduct

1. Disciplinary action

1.1 A member shall be liable to disciplinary action in any of the following cases:

1.1.1 if it is alleged that he is guilty of misconduct. To this paragraph, misconduct includes, but is not confined to, any of the following:

1.1.1.1 if the Member is represented to be guilty of any act likely to bring discredit to himself, the FPAS or the profession.

1.1.1.2 if he has been found guilty by a court in Singapore or in any country whose judgments are registrable in Singapore of an offence which would bring discredit to himself or the FPAS.

1.1.1.3 if he has been found guilty in any civil proceedings to have acted fraudulently or dishonestly.

1.1.2 if it is alleged that he has performed his professional work or the duties of his employment or conducted his practice inefficiently or incompetently in such a manner as to bring discredit to himself, the FPAS or the profession.

1.1.3 if he has been found guilty in any disciplinary proceedings instituted against him by the FPAS.

1.1.4 if it is alleged that he has contravened or failed to comply with any of the Professional Standards of the FPAS.

1.1.5 if he has failed to satisfy a judgment debt or has, individually made an assignment for the benefit of creditors, or has, under any resolution of creditors or order of the court or any deed or document, had his estate placed in liquidation for the benefit of creditors or has made any arrangement for the payment of a composition to creditors.

1.2 The FPAS may take disciplinary action against any person who has whilst he was a Member been guilty of misconduct or neglect of duty which would have rendered him liable for such action if he had remained as a Member and in such a case, all provisions relating to investigation and discipline shall apply to him as if he were still a Member.

Investigation Committee

2. Appointment

2.1 The FPAS may from time to time appoint one or more committees comprising:

2.1.1 Members; and

2.1.2 A lay person (in relation to an Investigation Committee, means an accountant, architect, banker, advocate and solicitor, company director, insurer, professional engineer, medical practitioner, or a person who possesses such other qualifications as may be approved by the FPAS).

- to be known as Investigation Committees to hear and determine any complaint of professional misconduct made against any Member.
- 2.2 Three Members of the Investigation Committee of whom one shall be the lay person shall constitute a quorum.
 - 2.3 An Investigation Committee shall be appointed in connection with one or more matters or for a fixed period as the FPAS may think fit.
 - 2.4 The FPAS may at any time revoke the appointment of any Investigation Committee or may remove any Member of an Investigation Committee or fill any vacancy in an Investigation Committee.
 - 2.5 An Investigation Committee shall have powers to co-opt other Members.
 - 2.6 Co-opted Members shall be competent to exercise any of the functions conferred upon Members of the Investigation Committee.
 - 2.7 An Investigation Committee may act notwithstanding any vacancy in its Membership if there is a quorum; and no act done by or under the authority of the Investigation Committee shall be invalid in consequence of any defect that is subsequently discovered in the appointment or qualification of the Members or any of them.
 - 2.8 The FPAS shall appoint a Member of an Investigation Committee to be the Chairman of the Committee.
 - 2.9 An Investigation Committee shall meet from time to time for the dispatch of business and, subject to the provisions of these regulations, may determine its own procedure and the mode of deciding questions before it.
 - 2.10 An Investigation Committee shall not be bound to act in a formal manner and shall not be bound by any law relating to evidence but may inform itself on any other matter in such manner as it thinks fit.
 - 2.11 An Investigation Committee may appoint a legal adviser who may be present at any inquiry into any matter to advise the Investigation Committee on all matters of law.

3. Complaints against Member

- 3.1 Any Member or any person may in writing bring to the attention of the President/Executive Director any complaint which indicates that a Member may be liable to disciplinary action.
- 3.2 The President/Executive Director may if he thinks fit require that the complaint be supported by one or more statutory declarations.
- 3.3 Where the President/Executive Director has received any complaint or where facts are brought to his knowledge which satisfy him that there may be grounds for such a complaint, he shall lay the complaint or facts before an Investigation Committee.
- 3.4 The Investigation Committee shall investigate the matter and determine whether it is to be referred to the Disciplinary Committee.

4. Notice of hearing

- 4.1 Before any investigation begins in respect of any matter:
 - 4.1.1 the President/Executive Director shall post or deliver to the Member concerned:
 - 4.1.1.1 copies of the written complaint (if any) and of any statutory declaration that may have been made in support of the complaint; and

- 4.1.1.2 a notice setting out any further particulars that may be necessary to disclose the reason for the investigation and inviting the Member concerned within such period as may be specified in the notice (which shall not be less than 14 days) to give to the President/Executive Director any written explanation he may wish to offer and to advise the Executive Director if he wishes to be heard by the Investigation Committee.
- 4.2 The Investigation Committee shall allow the time specified in the notice to lapse and shall give the Member concerned reasonable opportunity to be heard if he so desires and shall give due consideration to any explanation he may make.
- 4.3 The Investigation Committee shall give the Member concerned not less than 14 days' notice of the time, date, and place of the hearing of the case.

5. Powers of Investigation Committee

- 5.1 For the purposes of its investigations, the Investigation Committee may:
 - 5.1.1 call upon or employ any person to make whatever preliminary inquiries it thinks necessary.
 - 5.1.2 require the production for inspection by the Investigation Committee or any person so employed of any books, documents or papers which may relate to or relate to the subject-matter of the investigation; and
 - 5.1.3 require any Member to give all information in relation to any such books, documents or papers which may be reasonably required by the Investigation Committee or by the person so employed.
- 5.2 Any Member who without lawful excuse refuses or fails to produce to the Investigation Committee or to any person whom the Investigation Committee may employ for the purpose of investigation, any books, documents, or papers required for him under rule 5.1.3 or fails to give any such information relating thereto shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000

6. Matters which Investigation Committee may take into consideration

- 6.1 The Investigation Committee may take into account any facts or matter which has been considered by an Investigation Committee on any previous occasion in relation to the Member concerned (in respect of which, although a *prima facie* case has been made out, no case was referred to the Disciplinary Committee) and if it is decided to refer the case to the Disciplinary Committee then the reference may include all or any of the facts and matters which were on each occasion so considered by the Investigation Committee.
- 6.2 Without prejudice to any other action it may take, if the Investigation Committee is of the opinion that the facts and matters laid before it indicate that the Member may be or may have been managing his practice inefficiently or in whatever occupation of a professional nature has been acting inefficiently or incompetently, the Investigation Committee may, in its absolute discretion, advise the Member to obtain advice from such source as the Investigation Committee may determine. If the Member fails to seek such assistance when advised to do so, that fact shall be recorded.

7. Hearing before Investigation Committee

- 7.1 The Member concerned shall be entitled:
 - 7.1.1 to be heard before the Investigation Committee.
 - 7.1.2 to be represented by an advocate and solicitor or a Member as he may wish; and to call witnesses.
- 7.2 If the Member concerned does not attend the hearing as fixed, the Investigation Committee may proceed to hear the case in his absence provided it is satisfied that notice of the hearing has been given in accordance with rule 4.3.
- 7.3 All evidence given at the hearing of any matter by the Investigation Committee shall be given orally except that the Investigation Committee shall also be entitled to obtain sworn affidavits from any person if it considers them necessary for the better investigation of the matter.
- 7.4 Where a case of a Member who is liable to disciplinary action under rule 1.1.1.2, 1.1.1.3 or 1.1.3 has been referred to the Investigation Committee, the Investigation Committee shall have discretion to treat as proved any fact accepted by the FPAS or by the court and the Investigation Committee may report to the Disciplinary Committee in such manner as it thinks fit.
- 7.5 The Investigation Committee shall report its findings to the Disciplinary Committee within 3 months from the date of the commencement of investigation. If the Investigation Committee is unable to do so within such period, it may apply to the President for an extension of time of up to 3 months. Any further extension of time thereafter may be granted by the President on such terms and conditions as it thinks fit.

Disciplinary Committee

8. Appointment

- 8.1 The FPAS shall appoint annually a Disciplinary Committee which shall consist of not less than 4 Members of the FPAS
- 8.2 Three Members of the Disciplinary Committee shall constitute a quorum.
- 8.3 The Disciplinary Committee may, subject to these rules, regulate its own procedures in such manner as it thinks fit.

9. Decision of Disciplinary Committee

- 9.1 Upon consideration of the report of the Investigation Committee, the Disciplinary Committee may order:
 - 9.1.1 In the case of a Member:
 - 9.1.1.1 that his name be removed from the register and that he shall cease to be a Member,
 - 9.1.1.2 that his registration as a Member be suspended for such period as the Investigation Committee may recommend,
 - 9.1.1.3 that he be fined a sum not exceeding \$25,000,
 - 9.1.1.4 that he be censured,
 - 9.1.1.5 that notwithstanding the Investigation Committee's findings, no further action be taken on the case, or
 - 9.1.1.6 that he obtains advice or professional assistance from such source as the Disciplinary Committee thinks appropriate.

- 9.1.2 The Disciplinary Committee may order the Member concerned to pay to the FPAS such sums as it thinks fit in respect of costs and expenses of and incidental to any investigation and inquiry.
- 9.1.3 Any penalty imposed, or costs and expenses incurred by the FPAS under this section shall be recoverable as a debt due to the FPAS.
- 9.1.4 The Disciplinary Committee may, where it thinks fit, require an Investigation Committee to consider further evidence and meet for that purpose except that the Member concerned shall be given not less than 14 days' notice of such further meeting of the Investigation Committee.

10. Effective date of decision

10.1 The decision of the Disciplinary Committee shall, unless it is otherwise specified, take effect from the date of the decision.

11. Surrender of Membership certificate

11.1 In the event of the name of a person being removed from the register or of a person being suspended from Membership, the certificate of Membership shall be delivered up by him to the Chief Executive Officer to be cancelled or retained during the suspension.

12. Publication of decision

12.1 The Disciplinary Committee's decision taken under these rules may be published in any official publication of the FPAS. Every Member shall be deemed to have agreed, as part of the conditions to join FPAS, that no civil action in defamation may be brought against the FPAS, its officers or any person employed by it for making such official publication. In addition, the FPAS, its officers or any person employed by it shall have qualified privilege in making such publication.

12.2 The Disciplinary Committee's decision taken under these rules may also be referred to the relevant authorities.

12.3 For the purpose of this rule, "official publication" includes all local newspapers.

Summary

Maintaining professionalism requires you, as a planner, to act respectfully toward competing professionals, follow all applicable rules and regulations imposed by other organisations or government entities, and in some cases, alert appropriate officials about misconduct by other planners. Providing diligent service means defining the scope of the services you will provide, then taking the necessary steps to develop and implement suitable recommendations that meet your client's needs.

The future of the financial planning profession depends on both technical and ethical excellence. Not only is it important for CFP professionals to adhere to the principles expressed in the Code, but each member should also encourage and support adherence by other members.

Take note that the Code is meant to complement applicable standards, policies, and rules, not to substitute for them. But, most important of all, it should lead to an increased level of confidence and trust among our fellow members and the public that we serve.

Chapter 3: Compliance with Laws and Regulations

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Introduction

Since its formation, FPAS has been instrumental in driving changes in the regulations and structure of the financial planning industry in Singapore.

As mentioned in the previous Chapter, financial planning is a regulated activity in Singapore. Singapore is one of the first countries to introduce legislation that requires a person to be licensed before he can practice as a ‘financial planner’.

Consumers in the financial market need to feel confident that the market is one that is well regulated and operates fairly. If they feel that they cannot trust the regulatory environment, they will not participate in the market. In Singapore, the financial services industry is controlled mainly by the Monetary Authority of Singapore.

In this Chapter, we will look at the financial system of Singapore and the roles and involvements of the various regulatory bodies in Singapore in relation to the financial planning profession. Given that financial planning is a distinct element within the spectrum of financial services, it is critical that we seek some understanding of these areas.

Learning Outcomes

1. Describe the structure of the Singapore financial system
2. Identify the main regulators of the financial planning industry in Singapore
3. Describe the roles of Monetary Authority of Singapore and Singapore Exchange
4. Identify the various self-regulatory organizations and associations for financial planning and their respective roles
5. List the various rules and regulations affecting the financial planning profession
6. Understand the principles and requirements of the FAA and FAR and the related MAS Notices and Guidelines
7. Explain the structures of a business organization

Chapter 3 – Compliance with Laws and Regulations

3.1 STRUCTURE OF SINGAPORE FINANCIAL SYSTEM

The financial services industry has undergone significant changes over the recent years, with the driver of the changes being the government. Since the late 1990s, the government strived to turn Singapore into a regional financial centre with a liberal and competitive banking system and robust securities markets.

In recent years, Singapore has emerged as a centre for the wealth-management industry catering to high-net-worth individuals. This is due to strong growth in emerging Asian financial markets as well as tightening financial regulations in the western countries after the global finance crisis.

The financial system can be broadly divided into two areas: the Banking System, and the Non-bank Financial Intermediaries. The Monetary Authority of Singapore is the regulatory body that supervises all the activities in the financial market.

The Banking System includes:

- Commercial Banks
- Investment Banks and Brokerages
- Finance Companies

The Non-bank Financial Intermediaries include:

- Insurance Companies
- Pension Funds
- Asset Management Firms
- Venture Capital and Private Equity Firms
- Financial Leasing Companies

3.1.1 The Banking System

Commercial Banks

Since May 1999, the government has liberalized the banking sector, with the aim of embracing globalization by strengthening the local banks and allowing competition from foreign banks in the domestic market. This was achieved through the elimination of the 40% foreign shareholding limit in domestic banks. To better compete with foreign banks the MAS also incentivized the local banks to merge to become larger entities.

The Development Bank of Singapore (DBS) acquired the Post Office Savings Bank (POSB) in 1998, United Overseas Bank (UOB) combined with Overseas Union Bank in 2001, and OCBC absorbed Keppel Tat Lee Bank in 2001.

As of Sep 2012, Singapore has 121 Commercial banks, of which 6 are domestic and the remaining 115 are foreign. Domestic banks are allowed to undertake universal banking and can offer a wide range of traditional and investment banking services.

The domestic banks are:

- BANK OF SINGAPORE LIMITED
- DBS BANK LTD
- FAR EASTERN BANK LTD
- OVERSEA-CHINESE BANKING CORPORATION LIMITED
- SINGAPORE ISLAND BANK LIMITED
- UNITED OVERSEAS BANK LIMITED

The most important liberalizing measure for foreign banks was the issuance of 8 Qualifying Full Bank (QFB) licenses to foreign banks to promote competition at the retail level. Other notable changes included an increase in the Singapore-dollar lending limits for offshore banks from S\$300m to S\$500m in 1999, and the upgrading of 16 offshore banks to wholesale banks in Dec 2001, and another 34 more as of Jul 2011. The government had expressed the intention to upgrade all offshore banks to wholesale banking status over time.

Foreign banks can either be full banks, wholesale banks or offshore banks. Full banks are allowed to offer the whole range of banking services, while wholesale banks and offshore banks have restrictions on their local activities. Of the 115 foreign banks in Singapore as of Sep 2012, 26 were full banks, 53 were wholesale banks, and 36 were offshore banks.

The eight Qualifying Full Banks are:

- ANZ Bank from Australia
- BNP Paribas from France
- Citibank from US
- HSBC from UK
- ICICI from India
- Malayan Banking from Malaysia
- Standard Chartered Bank from UK
- State Bank of India from India

Wholesale banks, which are all branches of overseas banks, cannot accept Singapore-dollar fixed deposits of less than S\$250,000 and cannot pay interest on Singapore-dollar current accounts operated by resident individuals.

Offshore banks cannot accept interest-bearing deposits from resident non-bank customers, but they can extend credit facilities of up to S\$500m to them. As offshore banks may not tap Singapore-dollar deposits, they must fund their lending by issuing local-currency bonds or by borrowing in the interbank market.

Merchant Banks and Brokerages

There were 46 licensed merchant banks (also known as investment banks) as of Sep 2012. Unless permission is granted by the MAS, merchant banks may not establish branches nor raise funds from the public.

These banks, which are governed by both the Companies Act and the Banking Act, can conduct a variety of activities such as:

- corporate finance,
- underwriting of share and bond issues,
- mergers and acquisitions,
- portfolio investment management,
- management consultancy

The largest investment banks in terms of funds raised include DBS Bank (Singapore), Goldman Sachs (US), and Deutsche Bank (Germany).

As of Sep 2012, there were 33 brokerage firms authorized to trade on the Singapore Exchange (SGX). Prominent foreign brokers include Deutsche Bank (Germany), Merrill Lynch (US) and Credit Suisse (Switzerland). Under SGX rules member firms must have base capital of at least S\$1m for a trading member or S\$5m for a clearing member.

Finance Companies

Finance companies, licensed under and governed by the Finance Companies Act, focus on providing fixed and saving deposits as well as credit facilities to individuals and corporations. They may not offer deposit accounts which are repayable on demand by cheque, draft, or order. Generally, finance companies shall not grant unsecured credit facilities to any person or body of persons, which in the aggregate and outstanding at any one time exceeds S\$5,000.

Finance companies are not allowed to deal in any foreign currency, gold or other precious metals or acquire foreign currency denominated stocks, shares, or debt securities. They may expand their scope of activities subject to MAS' approval.

There are only three registered finance companies in Singapore who concentrate on providing instalment credit for motor vehicles and consumer durables, as well as mortgage loans for housing.

They are:

- HONG LEONG FINANCE LIMITED
- SING INVESTMENTS & FINANCE LIMITED
- SINGAPURA FINANCE LTD

3.1.2 Non-bank Financial Intermediaries

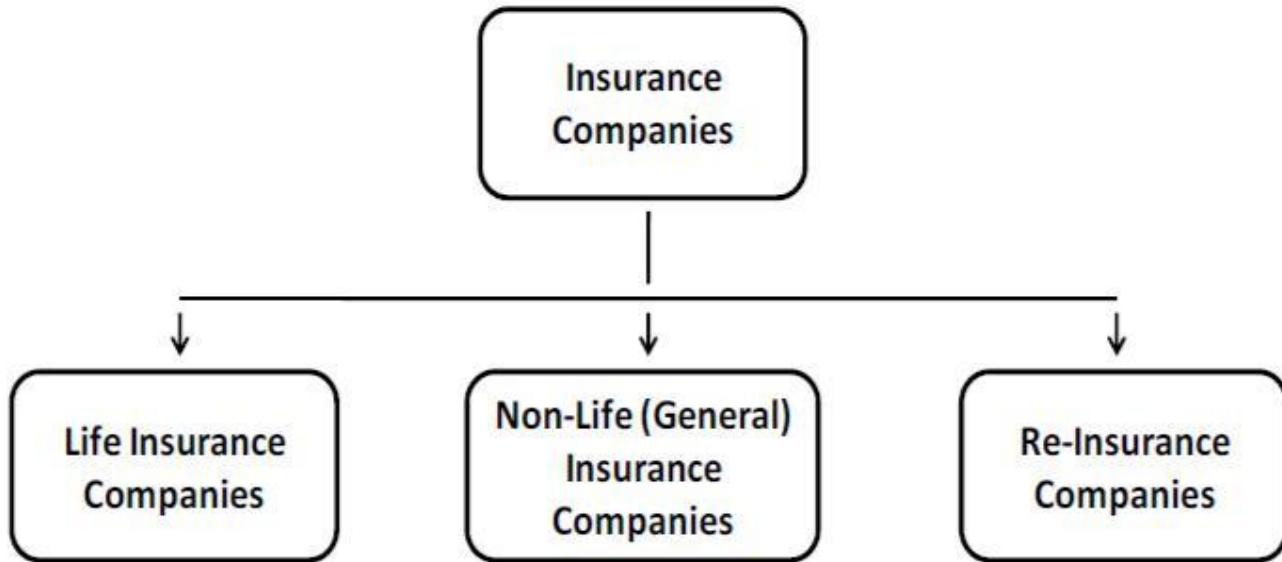
The MAS regulates insurance companies and asset management firms. The Economic Development Board is responsible for developing the venture capital and private equity sectors. The Central Provident Fund Board is a major financial force, controlling assets of S\$253 billion as of end 2013. Finance companies have diminished in importance as banks have increasing encroached on their territory.

The degree of integration between banks and insurance companies is increasing though it is still low. Banks and asset management companies are more closely integrated. As for venture capital and private equity, banks have low degrees of integration with both at the present.

Insurance Companies

Broadly, conventional insurance companies may be classified into three broad groups:

Conventional Types of Insurance Companies



Life insurance companies are generally the strongest, from both financial and structural viewpoints among all the insurance companies. The regulatory control over them has always been strict and only the larger and better managed companies are allowed to have a license.

General insurance covers motor, marine, aviation & transit insurance (MAT), fire insurance and miscellaneous insurance.

Reinsurance is how an insurance company protects itself against potential losses by sharing risks with another insurance company. The party which diversifies its insurance portfolio is known as the ceding party; the entity which accepts a portion of the potential obligation in exchange for a share of the insurance premium is known as the reinsurer. Reinsurance contracts give insurers the opportunity to offer higher limits of protection to a policyholder than its own assets would allow. Reinsurance also allows the insurance industry to spread its losses among more companies, thus lessening the impact of claims on any one company.

Pension Funds

The Central Provident Fund (CPF) is the national retirement pension system for Singapore citizens and permanent residents. As of end 2013, there were 3.51m CPF members with a combined balance of S\$253b in their CPF accounts.

Asset Management Firms

Collective Investment Scheme, better known as Mutual Fund in the United States and Unit Trust in Singapore, is a major vehicle through which private capital and money parked under the CPF Investment Scheme enters the capital markets.

Venture Capital and Private Equity Firms

Development in the Venture Capital (VC) sector was spearheaded by the government in the 1980s with the setting up of EDB Ventures to invest directly in projects. Singapore has since become a hub for venture capital in Asia.

The major players of Private Equity in Singapore are the two sovereign wealth funds - Temasek Holdings and Government of Singapore Investment Corporation.

3.2 THE REGULATORY BODIES

3.2.1 The Monetary Authority of Singapore

Prior to 1970, the various monetary functions associated with a central bank were performed by several government departments and agencies. As Singapore progressed, the demands of an increasingly complex banking and monetary environment necessitated streamlining the functions to facilitate the development of a more dynamic and coherent policy on monetary matters.

Therefore in 1970, Parliament passed the Monetary Authority of Singapore (MAS) Act leading to the formation of MAS on 1 January 1971. The passing of the MAS Act gave MAS the authority to regulate the financial services sector in Singapore.

The MAS has been given powers to act as a banker to and financial agent of the Government. It has also been entrusted to promote monetary stability, and credit and exchange policies conducive to the growth of the economy.

In April 1977, the Government decided to bring the regulation of the insurance industry under the wing of the MAS. The regulatory functions under the Securities Industry Act (1973) were also transferred to MAS in September 1984.

The MAS now administers the various statutes pertaining to money, banking, insurance, securities, and the financial sector in general. Following its merger with the Board of Commissioners of Currency on 1 October 2002, the MAS has also assumed the function of currency issuance.

As the central bank of Singapore, the mission of MAS is to promote sustained and non-inflationary economic growth and a stable and progressive financial market.

The official functions of MAS are:

- To act as the central bank of Singapore, including the conduct of monetary policy, the issuance of currency, the oversight of payment systems and serving as banker to and financial agent of the Government
- To conduct integrated supervision of financial services and financial stability surveillance
- To manage the official foreign reserves of Singapore
- To develop Singapore as an international financial centre

Regulatory Instruments Issued by MAS:

MAS, in carrying out its functions as a regulator of the financial services industry, issues various instruments under Acts administered by MAS. For the purposes of this website, the following classification of instruments issued by MAS is adopted:

(1) Acts

The Acts contain statutory laws under the purview of MAS which are passed by Parliament. These have the force of law and are published in the Government Gazette. Examples are the Banking Act and Financial Advisers Act.

(2) Subsidiary Legislation

Subsidiary legislation is issued under the authority of the relevant Acts and typically fleshes out the provisions of an Act and spells out in greater detail the requirements that financial institutions or other specified persons (e.g., a financial adviser's representative) must adhere to. Subsidiary legislation has the force of law and may specify that a contravention is a criminal offence. They are also published in the Government Gazette. Examples are the Insurance (Actuaries) Regulations and Finance Companies (Advertisements) Regulations.

(3) Directions

Directions detail specific instructions to financial institutions or other specified persons to ensure compliance. They have legal effect, meaning that MAS could specify whether a contravention of a direction is a criminal offence.

Directions consist of the following:

- (a) Directives - Directives primarily impose legally binding requirements on an individual financial institution or a specified person.
- (b) Notices - Notices primarily impose legally binding requirements on a specified class of financial institutions or persons. Examples are the Notice to Banks (MAS 603) on Branches and Automated Teller Machines and Notice to Life Insurers (MAS 307) on Investment-linked Life Insurance Policies.

(4) Guidelines

Guidelines set out principles or "best practice standards" that govern the conduct of specified institutions or persons. While contravention of guidelines is not a criminal offence and does not attract civil penalties, specified institutions or persons are encouraged to observe the spirit of these guidelines. The degree of observance with guidelines by an institution or person may have an impact on MAS' overall risk assessment of that institution or person. Examples are the Technology Risk Management Guidelines for Financial Institutions and Guidelines on Standards of Conduct for Insurance Brokers.

(5) Codes

Codes set out a system of rules governing the conduct of certain specified activities. Codes are non-statutory and do not have the force of law. However, a breach of a Code may attract certain non-statutory sanctions like private reprimand or public censure. There is currently a Code on Take-overs and Mergers (which is administered by the Securities Industry Council), a Code on Collective Investment Schemes and a Code of Conduct for Credit Rating Agencies. A failure to abide by a code does not in itself amount to a criminal offence but may have certain consequences.

(6) Practice Notes

Practice Notes are meant to guide specified institutions or persons on administrative procedures relating to, among others, licensing, reporting and compliance matters. Contravention of a practice note is not a criminal offence, unless a procedure stated in the practice note is also required by an Act or regulation. An example is the Practice Note on Lodgement of Documents relating to Offers of Shares and Debentures.

(7) Circulars

Circulars are documents which are sent to specified persons for their information or are published on the MAS website for public information. Circulars have no legal effect. An example is the MAS Circular to Banks on Outsourcing of Cash And Cheque-Related Transactional Services to Another Bank.

(8) Policy Statements

Policy statements outline broadly the major policies of MAS.

3.2.2 Singapore Exchange Limited (SGX)

SGX is the first demutualised, integrated securities and derivatives exchange in the Asia Pacific. Formed on 1 December 1999 by the merger of the Stock Exchange of Singapore (SES) and the Singapore International Monetary Exchange Limited (SIMEX), the SGX has since built up a presence and prominence that extends beyond the borders of Singapore.

Companies listed on SGX belong to one of two groups: SGX Mainboard or SGX SESDAQ. To be listed on the mainboard, a company has to fulfil some requirements set forth by SGX, while a listing on SESDAQ is not tied to the fulfilment of any additional conditions.

SGX serves as a frontline regulator for the markets and clearing houses that it operates in Singapore. SGX works closely with the relevant regulatory authorities, including the Monetary Authority of Singapore (MAS) and the Commercial Affairs Department (CAD), to develop and enforce rules and regulations with a view to building an enduring marketplace.

SGX Key Principles on Regulation

In conducting its regulation of the market SGX has adopted six guiding principles. The first three principles relate to how it targets what it regulates while the next three principles relate to how it devises its rules and conduct its regulatory activities.

Guiding Principle One: Disclosure-Based Regulation

SGX believes that market users should have a wide range of choices and that the decision whether a particular security or product is suitable for an investor is largely a matter for the market users and their advisers. For this principle to work, it is necessary for the market to be provided with timely, accurate, and adequate disclosure of all matters needed to make informed decisions about the listed products. Hence it focuses on facilitating fair access to information for all market users as the fundamental building block for achieving a fair, orderly, and transparent market. The disclosure of information alone will not be sufficient. It is therefore supplemented by high baseline standards to determine whether a particular type of listing or product is suitable for the various segments of our market.

Guiding Principle Two: Comprehensive Risk Management

Market users also need absolute certainty that their trades can be finalised. This is a fundamental basis for their trading. Any breakdown in the post-trade activities of clearing and settlement will result in a loss of confidence and can effectively bring the market to a halt. Consequently, SGX focuses regulatory attention on the safe and efficient operation of its clearing houses as a very high priority. It requires a comprehensive, integrated, and reliable approach to the management of the counterparty risks from clearing and trading members as well as other risks within the clearing houses.

Guiding Principle Three: Risk-Based Targeting of Regulatory Activities

To make an optimal allocation of regulatory resources, SGX adopts a pragmatic risk-based approach. Supervisory activities focused on principles one and two are tailored according to risk profiles it develops for issuer sponsors and our member firms. The profiles are based on the assessment of their management systems and the risks inherent in their business models and products bearing in mind the responsibilities of their own management to provide proper and thorough risk oversight of their business activities. SGX then allocates resources to those matters that it considers as posing the greatest risks the greatest risk to achieving a fair, orderly, and transparent market and safe and efficient clearing outcomes.

Guiding Principle Four: Balanced Approach to International Best Practice

The SGX market has strong international dimensions as reflected in its traded products, listed companies, market intermediaries and market users. In keeping with this, SGX aims to ensure that its rules and regulatory activities are consistent with international best practice for exchanges such as issuers being able to use International Financial Reporting Standards. At the same time, in pursuing regulatory outcomes, SGX seeks to strike an appropriate balance between internationally recognised practices and local needs and conditions.

Guiding Principle Five: Transparency

SGX seeks to be open and transparent in all its regulatory operations to the extent consistent with its statutory obligations and the public interest. In addition to statutorily mandated public consultations on rule amendments, SGX consults market users, where appropriate, on the proposed introduction of new products and initiatives. The SGX website publishes feedback received from market users on the public consultations, has a public register of listing rule waivers, and publishes “grounds for decision” by Disciplinary Committees.

Guiding Principle Six: SGX as a Frontline Regulator and Managing Regulatory Conflict

MAS is the statutory regulator and has oversight over SGX’s regulatory responsibilities. SGX performs a frontline regulatory role in maintaining fair, orderly, and transparent markets, as well as safe and efficient clearing facilities.

SGX maintains a continuous dialogue with market users. This market proximity improves its understanding of the businesses of market users and the compliance issues they face, enabling it to assess their compliance and to appropriately calibrate regulatory solutions and enforcement actions.

SGX is conscious that its dual role as both a frontline regulator and a commercial entity can create conflicts between its regulatory responsibilities and its commercial objectives (“regulatory conflicts”). The Securities and Futures Act places a legal obligation on the Board and management of SGX to maintain effective governance arrangements for managing such conflicts. The arrangements include a Regulatory Conflicts Committee (“RCC”) of the Board, which ensures the adequacy and quality of resources for SGX’s regulatory functions, the robustness of the decision-making structure, and the supervision of processes for identifying and managing regulatory conflicts. For instance, all waivers of rule requirements granted by SGX as well as enforcement actions leading to Disciplinary Committee proceedings undertaken by it are disclosed to the public and/or to its members. This transparency assures due process in the making of SGX’s regulatory decisions. The MAS exercises overall supervision of SGX and its management of regulatory conflicts.

SGX Regulatory Functions

The SGX regulatory functions include:

(1) Issuer Regulation

SGX seeks to be open and transparent in all its regulatory operations to the extent consistent with its statutory obligations and the public interest. In addition to statutorily mandated public consultations on rule amendments, SGX consults market users, where appropriate, on the proposed introduction of new products and initiatives. The SGX website publishes feedback received from market users on the public consultations, has a public register of listing rule waivers as well as publishes “grounds of decision” by Disciplinary Committees.

(2) Member Supervision

Member Supervision reviews membership applications, monitors members’ compliance with SGX rules, and provides support on regulatory issues to members.

(3) Market Surveillance

Market Surveillance conducts surveillance of trading activities on SGX. This includes the real-time surveillance of SGX securities and derivatives markets is conducted to detect unusual trading activity and prohibited trading practices or conduct, including insider trading and market manipulation.

(4) Enforcement

Enforcement investigates suspected infractions of SGX rules by member firms and their representatives as well as possible market misconduct, including market manipulation and insider trading. Appropriate sanctions are imposed on the relevant parties when it is established that trading and/or clearing rules have been breached. With minor transgressions, SGX has the powers to compound the offence. On serious cases, SGX will initiate a disciplinary action before a disciplinary committee who may reprimand, fine, suspend and/or expel a member or trading representative as it deems appropriate. In determining the sanctions, SGX considers the severity of the transgression, the compliance track record of the offender, the impact of the offence as well as mitigating factors.

(5) Risk Management

Enterprise Risk Management fosters risk awareness amongst all departments in SGX to enable them to pursue their operational and strategic goals while keeping SGX's risk appetite in mind. The department develops frameworks and policies to facilitate the identification, assessment, and prioritization of risks within SGX. It also partners business units within SGX to ensure that they can effectively manage their key risks. These risks include not only financial risks, but also risks pertaining to strategy, reputation, staffing, technology, and operations. Such risks are identified and managed top-down by senior management and verified using a bottom-up approach through the enterprise-wide Risk Self-Assessment process.

3.3 THE FINANCIAL PLANNING INDUSTRY IN SINGAPORE

Financial planning - a distinct element within the spectrum of financial industry services - is still relatively young in Singapore. However, it is an increasingly important part of the service mix through which Singaporeans seek to maximize the potential of their hard-earned money.

In the early days, most individuals had little choice in the way they planned their finances. Investment options were rather limited and so were the services provided by financial institutions. The stock market, perceived to be for those with the financial means, was not within reach of most of the population. Life insurance policies were often both used and promoted as investment vehicles.

During periods of high inflation, many of these products fell short of their potential. At the same time, financial markets were aggressively developing new investment products to give investors wider choices. It was against this backdrop that pressure mounted for greater freedom in the development of the financial market, thereby providing a greater range of options to consumers.

In the meantime, financial services were taking on an increased complexity, due mainly to:

- Economic uncertainties fuelled by inflation, fluctuating interest rates and the rapid growth of information technology-driven global investment strategies. The recent 2008 global financial crisis is a good example of the uncertainties to which people were exposed.
- An increasingly materialistic lifestyle, accompanied by the emergence of a culture that encouraged spending, making it difficult for people to save money.
- Changing tax laws and the imposition of self-assessment entrusted more responsibilities upon the shoulders of taxpayers in Singapore.

These events paved the way for financial planners to fill the void created by growing demands for holistic professional planning advice.

3.3.1 The CFP®, CFP Board, FPSB and FPAS

The United States have always been at the forefront of the financial planning industry. The Certified Financial Planner™ designation was first introduced in the United States in the early 1970s. It is the oldest, best-known financial planning certification service mark. In recent years, it has increasingly gained global recognition because of its active standard-setting activities and worldwide presence.

The CFP® designation is conferred by the Certified Financial Planner™ Board of Standards (CFP® Board) in the United States, the Financial Planning Standards Council in Canada and 22 other organizations affiliated with Financial Planning Standards Board (FPSB), the international owner of the CFP® mark outside of the United States.

FPSB manages, develops, and operates certification, education and related programs for many financial planning organizations, including the Financial Planning Association of Singapore (FPAS), so that they may benefit the global community by establishing, upholding and promoting professional standards in financial planning worldwide. Singapore was affiliated with the FPSB in Dec 1998 and registered our first three CFP® professionals in 1999. Since then, the numbers have steadily grown and as of end-2013, there are 914 CFP® professionals who managed to meet the strict criteria to qualify and be certified as a CFP® in Singapore.

3.3.2 The Professional Associations in Singapore

Financial Planning Association of Singapore (FPAS)

Established on 1st December 1998, the Financial Planning Association of Singapore (FPAS) is a non-profit professional association dedicated to developing and promoting an industry providing unbiased financial advice to the Singaporean public. FPAS is a professional organization for the financial planning industry in Singapore and is the organization which represents AFP® practitioners, AWP^{CM} practitioners and CFP® practitioners.

FPAS is part of a global assembly of financial planning bodies, and a licensee of the Financial Planning Standards Board Ltd., a US-based non-profit organization launched in October 2004 to set standards for and oversee the international CFP® certification program. FPSB currently has 24 members, including Certified Financial Planner™ Board of Standards (CFP® Board), and as of 2013, more than 150,000 individuals have been certified to use the CFP® marks globally.

After Australia and Japan, FPAS was the third member to join the federation of CFP® certification bodies in the Asia region and the tenth member of FSBP internationally.

The FPAS vision is to ensure that all Singaporeans have access to responsible and appropriate financial planning advice, by raising the professional standards of the industry through education and a shared code of ethics. In support of this vision, FPAS provides a range of services to consumers and to member individuals and organizations.

FPAS aims to:

- Educate and inform the public of the need for objective professional advice in making secure financial decisions;
- Ensure sufficient professional and ethical standards to maintain the confidence and trust of existing and prospective customers;
- Provide members with education, training, and information to enhance their provision of objective professional financial advice;
- Develop and maintain high ethical standards for members; and
- Represent the industry and its members to ensure an operating environment which is conducive to providing high quality financial advice.

Life Insurance Association (LIA)

The Life Insurance Association is the not-for-profit trade body of life insurance product providers and life reinsurance providers based in Singapore and licensed by the Monetary Authority of Singapore. Its 19 members comprise 16 life insurers and three life reinsurers.

The vision of LIA is to provide individuals with peace of mind and to promote a society where every person is prepared for life's changing cycles and for those situations unforeseen.

The Mission Statement of the LIA and its members is a commitment to being a progressive life insurance industry by collectively enhancing consumer understanding, promoting industry best practices, and through the association fostering a spirit of collaboration and mutual respect with government and business leaders.

Shared values underpinning the association and its members are:

- Unified in our resolve to deliver innovative solutions where every individual's needs are best met.
- Professional in the way we conduct ourselves and in the counsel we give.
- Ethical in ensuring our policyholders' interests are managed with utmost integrity.
- Fair in how we strive to provide favourable outcomes to both our policyholders and shareholders.
- Open and Honest in all that we do to build an environment of trust and transparency.
- Proactive in the steps we take to give our people the skills and knowledge to always provide sound solutions.

General Insurance Association of Singapore (GIA)

Established in 1965, the General Insurance Association of Singapore (GIA) is working to make all aspects of insurance easier and more effective for consumers, agents, and insurance companies in Singapore.

As a Trade Association, GIA's role is to be active in the business community representing the interests of its member companies. GIA helps identify emerging trends and responds to issues affecting the General Insurance industry. It seeks to promote the overall growth and development of the General Insurance sector in Singapore.

GIA encompasses all non-life insurance companies transacting business in Singapore. We are also constantly in the process of improving and achieving our mission and structure to ensure that it continues to meet the business needs of its member companies.

The GIA Constitution empowers the Management Committee to embark on activities that would promote and advance the common interests of members and the general insurance industry through:

- Fostering public confidence in, and respect for, the insurance industry.
- Representing members' interests to Government, trade organizations, similar associations, and bodies in other industries.
- Establishing a sound insurance structure and promotion of greater efficiency within the industry.
- Promoting education and training in all aspects of insurance.
- Being a good corporate citizen.

Investment Management Association of Singapore (IMAS)

The Investment Management Association of Singapore (IMAS) was formed on 22nd September 1997. It is a representative body of investment managers spearheading the development and growth of the industry in Singapore.

By fostering high standards of professionalism and promoting exemplary practice among members, the association seeks to set the benchmark for the investment and fund management industry in Singapore.

It also serves as a forum for members in discussions as well as a collective voice where representation is needed on behalf of the investment management industry, facilitating training for its members, and contributing towards investor education.

As a representative body of investment managers, IMAS will spearhead the development and growth of the industry in Singapore, by fostering high standards of professionalism amongst practitioners and creating public awareness of, and interest in the industry.

The Objectives of IMAS are:

- To promote professionalism and exemplary practice among members in their conduct of the investment management business.
- To provide a forum for members to discuss issues or matters relating to the investment management industry.

- To represent members collectively in discussions with or assist any member to make any representation or recommendation to, any government, government representative, supervisory authority, whether local or foreign, which are concerned with the investment management industry.
- To promote the education of the investing public on investments and the investment management industry.
- To improve professionalism and standards of research and fund management expertise in Singapore.
- To promote the investment and fund management industry.

Singapore Insurance Brokers Association (SIBA)

The Singapore Insurance Brokers Association (SIBA) is committed to advancing professional insurance broking and fostering public confidence in insurance brokers.

SIBA is not only concerned with setting minimum standards of education and experience but also ensuring that brokers undertake on-going development and training to maintain and enhance their capabilities and professionalism.

In May 2000, National Insurance Brokers Association of Australia (NIBA) signed a Memorandum of Understanding with SIBA to give SIBA exclusive rights to the QPIB System and Education Program in Singapore.

The objectives of the organization are:

- To provide a central organization and platform for all members in order that their collective and individual voices be heard in the wider business community and by regulatory and trade bodies.
- To promote the professional conduct and general efficiency of all members so that they may be able to play their role in the marketplace as responsible, qualified, and trustworthy practitioners.
- To act as the insurance broking industry's spokesman in dialogues with government, regulatory and trade bodies on insurance matters.
- To keep abreast and inform members of regulatory developments within the insurance industry, as well as other regulatory developments as they relate to the insurance industry.
- To promote the joint professional and economic interests of its members through training and education of practitioners.
- To foster professional exchanges and dialogues with similar organizations in the international insurance community for mutual advancement.

Association of Financial Advisers in Singapore AFA(S)]

The Association of Financial Advisers in Singapore [AFA(S)] is an industry grouping. It comprises of 23 member firms as of 2012 and represents about 90% market share of the financial advisory business.

The aims of the association are to:

- Represent relevant authorities licensed Financial Advisers (Firms) who provide advice on and sales of Financial Products (Exempt Financial Advisers Companies are excluded);
- Provide a forum for members to develop opinions, recommendations, and programs, all of which will contribute to the further development of the financial services industry for the benefit of the public in Singapore;
- Endeavor to advance the interests of its members and of the institution of the Financial Advisers (Firm) by
 - (a) taking steps as a group towards increasing the efficiency and professionalism of the Financial Advisers' Representatives recruited by members;
 - (b) co-operating with organizations engaged in developing more effective training relevant to sales and marketing;
 - (c) supporting principles of prudent financial advice and sales which guarantee the public the highest professional service;
 - (d) encouraging every Financial Adviser's Representative to upgrade his/her profession so as to further enhance professionalism in the industry;
 - (e) examining proposed legislation by the relevant authorities affecting the industry and in particular the Financial Advisers (Firms) and to promote and support and assist the implementation of such legislation;
 - (f) organizing conferences or seminars locally or abroad for its members and for the public, in relation to matters pertaining to financial services;
 - (g) conducting courses relating to the advice on and sale of financial products;
 - (h) receiving and hearing complaints, disputes and claims made in relation to members of the Association; to set up or form such committees or bodies that may be appropriate to whom reference may be made of such complaints, disputes and claims and to facilitate the settling of such complaints, disputes, and claims; and
 - (i) doing all such lawful things as are incidental or necessary to the achievement of the above objects or any of them.

Singapore College of Insurance (SCI)

The Singapore College of Insurance (SCI) is a not-for-profit, education provider that was established on 7 January 1974 to support Singapore's development as a major international financial centre. SCI conducts education programs for the insurance and related financial services industry.

The objectives of SCI are:

- To expand the pool of professionally qualified insurance and related financial services professionals through various means, including examinations, assessment, and certification.
- To continuously develop and provide high quality insurance and related financial services education and training programs, including seminars, lectures, and conferences, both in Singapore and across Asia.
- To provide various platforms, both nationally and internationally, for insurance and related financial services professionals to network and exchange knowledge and experience.
- To build and maintain an insurance and related financial services research and information resource centre.
- To enhance intellectual depth through creating and developing curriculum content, as well as writing and producing publications, including textbooks, magazines and journals on insurance and related subjects.
- To promote public awareness of insurance and related matters through various activities involving the community, as well as public and educational institutions.

3.4 THE REGULATIONS ON FINANCIAL PLANNING

The MAS is the regulatory body of Singapore's financial services sector. It describes its supervisory approach as one that is risk focused, stakeholder reliant, disclosure based and business friendly. Having a risk focused approach means being able to allow well-managed institutions more flexibility while being stricter with the weaker ones. The MAS places the primary responsibility for risk oversight on the boards and senior management of financial institutions.

The MAS did not overhaul the regulatory approach following the global financial crisis of 2008-9. It did intensify its supervision of financial institutions during the crisis and strengthen its oversight of risk exposure and risk management of financial institutions. For instance, MAS requires banks to meet minimum capital requirements which are higher than international standards, as well as liquidity and provisioning requirements which were not widely adopted internationally prior to the crisis but are now commonly regarded as necessary and appropriate.

In terms of regulation, MAS adopts a consultative approach. An example of this is the “Financial Advisory Industry Review” consultation process which serves as a precursor of forthcoming regulatory interventions in the financial advisory industry.

In Singapore, under the Financial Advisers Act, only firms licensed as a Financial Adviser (FA) and firms that are exempt FAs can use the term ‘financial adviser’, so that the consumer would know they are dealing with an entity regulated by MAS. On the other hand, titles such as ‘financial planner’, ‘financial analyst’ or ‘financial consultant’ may or may not be regulated by MAS. You can get information on the list of FAs regulated by MAS by visiting the MAS website at www.mas.gov.sg under “Financial Institutions Directory”.

Counterintuitive as it may be, you must become familiar with the terminology: the phrase “Financial Adviser” refers only to firms. It should not be used to refer to financial planning professionals. The employees of the FA or exempt FA who have been appointed by the firm to conduct regulated activities are referred to as Financial Adviser Representatives. On the other hand, an Introducer may be an individual, a licensed financial adviser, an exempt financial adviser, or simply a firm. The Introducer helps the Financial Adviser generate business leads so that the Financial Adviser can spend less time prospecting for clients.

In August 2000, the Committee on Efficient Distribution of Life Insurance (CEDLI) announced its recommendations aimed at promoting transparency and competitiveness in the distribution of life insurance products. CEDLI was a private sector committee appointed by MAS to examine ways to enhance efficiency in the sale of life insurance. Following the acceptance of most of CEDLI’s recommendations by MAS, the Life Insurance Association of Singapore has developed, in consultation with MAS, guidelines on the Needs-based sales process as well as the training and competency requirements for life insurance advisors. From 1 January 2001, all life insurance advisors were required to conduct a fact-find, needs analysis to ensure product suitability in their recommendations.

Section 27 of the Financial Advisers Act and Notice FAA-01 set out the requirements for the conduct of a proper fact-find and needs analysis so that recommendations made by FAs have a reasonable basis and meet the needs of clients. Conducting the Financial Needs Analysis process is required by law for investment products covered under the Financial Advisers Act, such as unit trusts, life insurance policies, investment-linked insurance policies and structured products.

An FA representative is required under the FAA to recommend that takes into account the client’s investment objectives, financial situation, and any particular needs. The process of obtaining such information is commonly called the financial needs analysis (FNA).

3.4.1 Need-based Analysis

Product Selling is the most traditional form of selling financial products, especially in the insurance industry in its early period of development. People in modern society would like to think that product selling is a wrong method of selling, since there was little concern for suitability. Another school of thought argue that when the finance industry was at its infancy and the range of products was very limited, product selling was a valid and moral way to sell.

To take an analogy, just a few decades ago, when you buy a pair of Levi's jeans, it would be the 501 series - there was no other choice. Now when you walk in the store to get a pair of Levi's jeans, you can almost try on as many designs as you have time on your hands, to find 'the perfect fit'. When you look at the availability of financial products in the same way, you will begin to appreciate the irony that in the modern society there will be so many ways to buy the wrong pair of jeans, compared to last time when you can hardly go wrong since there wasn't any other choice!

The paradox of choice is that there are so many ways now to make a mistake since there is so much more to choose from. In economics, the concept of cost incorporates the consideration of opportunity cost, which is what you are 'giving up' when you decide. Returning to the jean's analogy, when you buy the 501 today the opportunity cost is all the other patterns you are not buying.

Compared to shopping for jeans, shopping for the right financial plan and the right financial products to complement the plan has a manifold magnitude of impact on the well-being of the consumer. That is why we have today the Needs-based approach to selling, an approach that allows professional financial planners to assist the consumers in navigating and charting their financial futures.

There are at least two approaches to the Needs-based analysis. The first approach is a narrower interpretation, which is focusing on matching product solutions to specific concerns, such as using health insurance to cover medical bills in times of catastrophic illnesses. The more holistic approach is a comprehensive process that examines clients' entire financial situation in detail, and then identifies strategies to help meet their long-term goals.

One school of thought sees three separate professions within the general area of personal finances: brokers, financial advisor, and financial planners. The process for brokers is limited to sales, and most often the possible solutions are limited by the products available to the professional's firm. A financial advisor thinks mainly in terms of asset allocation to meet the client's needs. The comprehensive financial planner is a professional who adheres to a process based on getting a helicopter vision of the situation with no prejudices on products or strategies.

Types of Financial Needs

The term "financial needs" has been codified into the lingo of the typical Singapore financial planner through legislation. The Financial Advisers Act and the associated notices and guidelines require a reasonable basis of recommendation, and reasonable basis is often justified through the identification of financial needs of the client.

Broadly, there are three categories of financial needs that a client has – Accumulation, Retirement, and Protection. Thinking within the framework of these needs, you can help clients uncover and identify their specific financial goals.

- **Accumulation Needs**

Financial goals relating to accumulation include saving for a bigger house, buying a car, early retirement, and starting a business. By far, one of the most cited reasons is saving for children's education, because most people perceive the cost of education rising at an alarming rate.

- **Retirement Needs**

Financial goals relating to Retirement encompass the events where earned income ceases. It is important for both the financial planner and the client to be clear on the parameters of the goal because everybody understands the term retirement differently. What exact age for retirement? Would earned income totally cease? Would the spouse be working? What is the expected standard of living?

Within the broad ambit of the retirement goal, there are many sub-goals, such as expected standard of living, and travelling. If the client can visualize the expected lifestyle at retirement, then it would be an easier task to compute the expected outlays.

- **Protection Needs**

Protection needs are to ensure that in times of financial stress, financial obligations can be met. Such events of financial stress include death, disability, and major illnesses. It also includes other events like personal liability, and theft of vehicle, and damage to property.

In case of untimely death, clients would need to have sufficient liquidity to fund final expenses of funeral costs, tax bill, accounting, legal and estate costs. If the client is the main breadwinner, enough cash to last the deceased's family through three months is preferable while the family makes other arrangements for longer term income. If there are children who are yet financially independent, extra living costs and education provisions would have to be made to sustain them till financial independence. Likewise, if there is a spouse who is retired, the retirement needs of the spouse should not be overlooked.

In the case of disability, the clients would need to have income replacement so that their monthly commitments like mortgages can be sustained. In case of major illness, client would need to consider reducing or paying off debt, and a lump sum payment for peace of mind in seeking medical treatment.

Difficulties in Identifying Financial Needs

The main difficulty in identifying Financial Needs is the lack of financial awareness. Often, clients are blind to certain needs until the need surfaces, but that is often too late. For example, in cases of unexpected critical illness, the nature of insurance is such that you cannot get it when you need it. The irony is you can only buy insurance when you do not need it. Hence, unless the client has the foresight to plan for such a financial need, there needs to be a financial planner to educate the client in surfacing their hidden needs.

Quantifying Needs

After identification, the next step is quantification. Financial goals should all have (i) a specific amount and (ii) a specific timeframe attached to them. The clear articulation of the goal is crucial, because only when the goal is made very clear can proper strategies be developed to meet the goals.

Main Sources of Money to Meet Financial Needs

The main sources of money that your client may use to cover their financial needs include:

- Central Provident Fund (CPF)
- Supplementary Retirement Scheme (SRS)
- Insurance Policies
- Savings and Investments
- Employee health benefits

Prioritizing Needs --- The Trade-off Concept

Having a personal financial plan and being committed to actively managing it is good for most people and good for their families. Traditionally, most people simply followed their own, often uninformed, instincts. Where people have been ‘informed’, the information they have may be skewed.

Most people have little understanding of the long-term financial consequences of what they do with their money. Few can calculate how long it would take to pay off a \$10,000 holiday charged to their credit card.

Many people are habitual spendthrifts: every dollar earned, and every dollar borrowed is spent on personal consumption, on things that have little or no lasting value. In contrast, a small number may be so conservative and risk-averse that they put all their money into low-returning bank-assured accounts, which is effectively “under the bed”.

Neither behaviour portrays a rational understanding of financial concepts. The fundamental thesis of this submission is that most people, no matter what their socio-economic status, should have access to simple, flexible tools and personal financial guides if they need them, so that they can gain insights into the potential financial outcomes of their available financial choices.

The underlying premise is that most people will make more rational financial decisions when they can see the options available and the probable outcomes. For financial behaviours to change, individuals and families must first be able to see where their current financial behaviours will lead them and the benefits that can come from incremental changes in their behaviour.

Clearly, whilst most people, like many of your clients, wish to be better off financially and use their money more wisely, many cannot see the financial consequences of their behaviour.

For example, a client may ask, ‘How long will it take me to pay off the \$10,000 I borrow on my credit card for a holiday if I pay the minimum balance and use the credit card for other purchases?’ Or ‘How long will it take me to save up for a deposit on a home?’

Without knowing the answers to these types of questions, the client will make emotional decisions without understanding the trade-offs. It is not that the client should not borrow to go on a holiday – they also need a break and sometimes the time taken to save for a holiday does not meet their immediate need for stress relief. However, the decision to borrow to fund immediate consumption needs to be weighed considering the consequences.

If a client understands that it will take three years to pay off a holiday funded by a credit card, and that this could result in delaying his home ownership by three years, he might consider a cheaper source of funding, a lower cost holiday or a faster repayment schedule. Although the client will, ultimately, be making most of the decisions on his own, as a financial planner, you can and should advise him of the consequences.

In general, most clients live poorly planned financial lives, often based on uninformed decisions which could lead to significant disasters.

The first step in modifying such behaviour is for the client to gain an insight of what actions or decisions he can control. A financial plan is the outcome of a process where the client identifies the goals that are important in his life. He then needs to look at what it costs to maintain or achieve those goals. Once his aspirations are clearly defined, factoring cost and time frame, a plan can be detailed to achieve them. The plan needs to take into consideration trade-offs – no set of goals can be achieved all at once or in full.

The quality of life for the client, now and in the future, is strongly influenced by how well he can manage his individual resources. What resources does the client have?

Most clients have four resources they can control to some degree:

- Time
- Money
- Willingness to limit personal and property risks (through risk avoidance, management, and transference)
- Willingness to sublimate their fear of financial loss for a higher potential of financial gain

Each of these resources has a monetary dimension that can be measured and about which the client can make decisions. Obviously, given unlimited money, the client could spend as he pleases. Given unlimited time, he could do everything that he wanted to and work solely for his own satisfaction. Where there is no fear of the consequences of personal and property loss, there would be no need to pay premiums to transfer his risks to the insurers. And if the client is not concerned with asset price uncertainty, he can allow his portfolio to work through periods of volatility without worries. His financial future would be secure. However, just as obviously, it must be recognized that his resources are limited and so decisions about their usage have to be prioritized.

Trade-offs will have to be made and your client will need to ask himself some questions:

- Do I work more/ longer/harder because I need extra money, or can I afford to take more time off, work part-time or retire to increase my leisure or the time I can give to family and hobbies?
- Can I continue my current lifestyle and limited saving and still be able to fund the retirement lifestyle I want, or must I cut back on current spending and save more?

- Do I need full insurance protection? And if I do, how much would that be, and can I afford to pay for it given my current income and saving needs?
- How can I reconcile my position knowing that I need to invest more of my savings in volatile growth assets to achieve my long-term goals, knowing also that I would get nervous when their value goes down?

Almost all Singaporeans face these ever-present concerns. Balancing these four sets of resources effectively is difficult at best and impossible without solid information and a ‘living’ financial plan. With a disciplined commitment to make the trade-offs and an active management of their financial lives, most people can significantly increase the level of control they have over their current and future lives.

Every decision closes off alternatives. For example, a decision to invest in shares may mean one cannot take a vacation. A decision to go to school full-time may mean one cannot work full-time. Opportunity cost is what one gives up by making a choice over another. This cost, commonly referred to as the trade-off of a decision, cannot always be measured in terms of value.

Decision-making is an inescapable part of an individual’s personal and financial life. The prudent one will consider all possible angles, including the loss of opportunities that might result from his decisions.

As part of the FNA process, the FA representative gathers information on the client’s overall financial situation and goals, and then analyses the information to recommend an investment product.

The following information will be required before a FA representative can recommend an investment product:

- Financial objectives
- Risk tolerance
- Employment status
- Financial situation
- Current investment and insurance portfolio

If the FA representative makes a recommendation for any life policy, he will also need to obtain information on:

- The number of dependants
- The extent of financial support required for each dependant
- Duration of financial support required.

The FA representative is required to document all the above information, and after a thorough analysis, he will proceed to suggest a product.

The FA representative should explain what the product is and why he thinks it is suitable, including:

- The nature and aim of the product;
- The benefits and risks;
- Who the product provider is;

- What the fees and charges associated with the product are, including the amount of commission received by the financial adviser;
- The free-look or cancellation period available, and the terms and procedures should you choose to exercise this right;
- Any warnings, exclusions, and disclaimers; and
- Reports the client is entitled to receive.

The FA representative should also provide the following documents if he is recommending a unit trust or life insurance policy:

- A summary of the information obtained from you on your investment objectives, financial situation, and personal needs;
- The specific recommendations of the FA representative and the basis for the recommendation;
- A copy of the prospectus or fund factsheet (for unit trusts only); and
- A copy of the product summary and benefit illustration (for life insurance policies only).

The client will then need to consider the recommendation carefully and assess whether the products selected meet his or her needs.

3.4.2 The Financial Advisers Act (FAA)

On 1 October 2002, a new legislation known as the Financial Advisers Act came into operation to regulate the sale of investment products in Singapore. The FAA consolidates the previous regulatory regimes governing the provision of financial advisory services in respect of securities, futures, and life policies, which were contained in three different Acts, namely, Securities Industry Act (SIA), Future Trading Act (FTA), and Insurance Intermediaries Act, into a single piece of legislation. This has provided a consistent set of requirements and regulations of market intermediaries engaging in similar activities across investment products.

The FAA governs financial advisory activities in respect of investment products and the distribution or marketing of specific functionally similar investment products, namely life insurance policies and collective investment schemes, including unit trusts. It also governs the business conduct of persons providing financial advisory services.

Key policy prescriptions under the FAA which came into effect in Oct 2002 include the following:

- A financial adviser is required to have only one license to give advice on a spectrum of financial products. Individuals who act on behalf of the financial advisers, also known as financial adviser representatives, must also be licensed by the MAS.
- Licensed financial advisers must meet certain prudential requirements such as minimum paid-up capital and financial resource requirements, and must have professional indemnity insurance.
- Financial Institutions that are already supervised by the MAS under other acts are exempt from licensing requirements but are required to comply with the same rules as licensed financial advisers.

The FAA was amended in 2005 with the following important changes:

- Generally circulated advice such as dispensed in marketing brochures, seminars, and workshops are exempted from the reasonable basis requirement

- It extended the grounds under which the MAS could refuse to grant or renew or could revoke a license.

Under the FAA, the MAS regulates only certain aspects of financial planning mainly relating to securities, futures, and insurance. Tax and Estate planning activities do not come under MAS' regulatory ambit.

Specifically, the FAA regulates the following activities:

- Providing advice on investment products including securities (which includes unit trusts), futures contracts, foreign exchange and leveraged foreign exchange contracts, and life insurance policies (which includes investment-linked life insurance products);
- Issuing reports on investment products;
- Marketing collective investment schemes, i.e., unit trusts; and
- Arranging life insurance products

Because the goal of the FAA is to regulate products with an investment element, general insurance policies (consumption-based), deposit-taking products (low risk and well understood), and loans and mortgages (no investment element) are not covered under the FAA.

3.4.3 Financial Advisers Regulations (FAR)

On 1 Oct 2002, the Financial Advisers Regulations (FAR) came into effect as a subsidiary legislation to give effect to the provisions of the FAA and sets out the rules on the application of the FAA. It provides for exemptions from the requirements relating to licensing, approval or registration requirements, the application of the provisions under the FAA, and the revocation or variation of any condition or restriction under the FAA.

Key Principles of FAA and FAR

The four key principles underpinning the FAA and the FAR are discussed below:

(1) Customers' Interest

Financial Advisers must first and foremost, give due regard to the interests of customers. The provision of financial advice must be conducted in a fair, professional, and ethical manner. One practical application of this principle is that financial advisers are required to have reasonable basis for their recommendations. This is to ensure that due consideration has been given to the person's investment objectives, financial situation, and particular needs.

The first element under this concept is the "Know Your Client" requirement in respect of his financial objectives, risk tolerance, employment status, financial situation, current investment portfolio and number of dependents. Subsequently, in conducting a Needs Analysis process, a financial adviser representative should analyse the information provided by the client and identify appropriate investment products for the client. Proper documentation and record keeping of client information and recommendations should underpin this process to meet the objective of providing good advice to the customers.

(2) Consistency

The concept of consistency presents itself in at least two ways: Firstly, consistency must apply to processes for the same product. This means for the same investment product, such as life insurance, financial advisers from different distribution channels would be subject to the same rules and standards. Secondly, consistency would apply to similar products. The sale of functionally similar products, such as single premium investment-linked policies and unit trusts, would be subject to similar rules and standards.

(3) Accountability

The principle of accountability is essential to ensure that there is a higher-level entity or person who would be accountable for the professional and ethical conduct of a representative of the financial adviser. This principle is captured in the “Representative To Act For Only One Principle” rule under the FAA. Each financial adviser representative can represent only one principle. Hence, if a person is a tied agent, he cannot be a licensed financial adviser representative at the same time. The principle is responsible for developing, supervising, and always monitoring the conduct of its representatives, including aspects of market conduct and competence. This is to ensure that there is absolute clarity to the investors as to the status of the financial adviser representative. In this way, consumers will understand who will be accountable for this professional behaviour as a financial adviser representative.

(4) Independence

The concept of independence has been considered by many to be an important condition for customer interest. However, experience from other established markets has shown that this has not been borne out. Therefore, it has been considered more important that representative of financial advisers put customers' interests at the forefront by giving good objective advice and be guided by the concept of reasonable basis in providing advice.

3.4.4 Approved Financial Advisers

Financial advisers are licensed and regulated under the Financial Advisers Act. They may provide the whole range of financial advisory services as specified in the 2nd schedule of the Financial Advisers Act with the appropriate Financial Advisers license.

Currently, these services include advising others on investment products, issuance of research reports covering investment products, marketing of any collective investment schemes, as well as arranging life policies for others.

Individuals who are employed by the financial advisers to carry out such services are required to be representatives under the Financial Advisers Act.

Types of Approved Financial Advisers Institutions in Singapore

- Financial Advisers
- Holders of Financial Adviser's License
- Advising others on the following investment products
- Futures contracts
- Foreign exchange trading
- Leveraged foreign exchange trading
- Life insurance policies
- Collective investment schemes
- Securities other than collective investment schemes
- Structured deposits
- Advising on the following investment products through research reports
- Futures contracts
- Foreign exchange trading
- Leveraged foreign exchange trading
- Life insurance policies
- Collective investment schemes
- Securities other than collective investment schemes
- Structured deposits
- Marketing collective investment schemes
- Arranging contracts in life policies

Source: MAS

3.4.5 The Financial Advisory Industry Review

FAIR, which stands for “Financial Advisory Industry Review”, is a comprehensive evaluation of the financial advisory industry with the Review Panel chaired by the Monetary Authority of Singapore (MAS).

The five key thrusts of FAIR are:

- Raise the competence of financial advisory representatives
- Raise the quality of financial advisory firms
- Make financial advice a dedicated service
- Lower distribution costs of insurance products
- Promote a culture of fair dealing

The 13-member panel comprises representatives from industry associations, consumer bodies, the investment community and academia. The committee has completed the review and proposed its recommendations in early 2013.

3.4.6 Professional Licensing

3.4.6.1 FPAS Licensing

Consumers are currently facing many challenges managing their personal finances. Responsibility for retirement planning is shifting from the government and employers to the individual. In an environment where job security is no longer guaranteed, where financial products are exploding in complexity and variety, where business and economic cycles are becoming more volatile and unpredictable, it is inevitable that consumers will feel overwhelmed and confused. The need for professional advice in such an atmosphere is great, but greater still is consumers' need for assurance that the professionals they choose for financial advice are qualified and competent.

As consumer demand for qualified advice grows, the field of financial planning, in which poor performance on the part of the practitioner can lead to significant harm to the consumer, must embrace professional certification if it is to be taken seriously as a profession. Professional certification connotes competency, occupational experience, and adherence to standards of practice.

For consumers to accept financial planning practitioners as qualified, trustworthy professionals, they must be provided with an easily identifiable, objective means of measuring the practitioners' experience, education, professional competence, and ethical standards. The CERTIFIED FINANCIAL PLANNER™ certification process serves that purpose by defining what a financial planning professional is, establishing standards of professional practice and creating a "mark of quality" that consumers can recognize and to which practitioners can aspire.

The CFP®, AWP^{CM} and AFP®

FPAS will therefore seek to provide the certification framework for the financial planning industry in Singapore. FPAS will oversee the administration of the CERTIFIED FINANCIAL PLANNER™, the ASSOCIATE WEALTH PLANNER and the ASSOCIATE FINANCIAL PLANNER™ certification process, and grant to qualified individuals the right to use the CFP®, AWP^{CM} and the AFP® marks.

The CERTIFIED FINANCIAL PLANNER™ or CFP® certification will be gained by certain individuals who have demonstrated technical competency, combined significant practical experience, enabling them to write (to international standards) a comprehensive and detailed financial plan for an individual.

- CERTIFIED FINANCIAL PLANNER™ or CFP®**

The CFP® certification is reserved for those professionals who have demonstrated technical competency by completing a CFP® educational program provided by an approved FPAS education provider. These individuals must also pass FPAS certification examinations and have three years' relevant experience and abide by the Code of Ethics. The CFP® certification designation is an internationally recognized service mark and is a symbol of the highest level of professionalism for financial planning practitioners.

- **ASSOCIATE WEALTH PLANNER / AWP^{CM}**

The AWP^{CM} certification is a mid-level professional certification for practitioners with key portfolios in retirement planning and wealth accumulation in addition to their capability to recommend general financial planning strategies. These individuals must also pass FPAS certification examinations Module 1, 4 and 5 (Foundations in Financial Planning, Investment Planning and Retirement Planning respectively) and abide by the Code of Ethics.

- **ASSOCIATE FINANCIAL PLANNERTM / AFP[®]**

The AFP[®] certification is a certification for practitioners who are competent to recommend general financial planning strategies and to advise on the appropriate selection and use of various financial planning products for individuals. These individuals must also pass FPAS certification examinations Module 1 (Foundations in Financial Planning) and abide by the Code of Ethics.

The CFP[®] Certification Requirements

To be certified, a candidate must meet all four requirements of the certification process described below, while an AFP[®] candidate must meet the education, examination, and the ethics requirements:

Education

Before applying for the Certification Examination(s), a candidate must complete academic coverage of the financial planning curricula including foundations in financial planning (AFP[®] course), risk management and insurance planning, tax planning and estate planning, investment planning, retirement planning, and financial plan construction and professional responsibilities. Completion of the academic requirement is available through three educational paths, namely self-study or distance learning, part-time course, or full-time course.

Examination

Upon successful completion of the academic requirement, the candidate is eligible to apply for the Certification Examination(s). The Certification Examination is designed to assess the candidate's ability to apply his/her financial planning education to financial planning situations in an integrated format, thereby protecting the public by assuring that he/she is at the appropriate level of competency required for practice.

Experience

This refers to work which involves personal financial planning-related experience. It is designed to provide the public with the assurance that the candidate understands the counselling nature of personal financial planning. The requirement is three years, performed before or after the successful completion of the Certification Examination.

Ethics

Once the education, examination, and work experience requirements are satisfied, the CFP candidate will receive a Declaration Packet, which includes an ethics statement form and his/her license application with a bill for the initial license fee.

The AWP^{CM} and AFP[®] candidate will also receive a Declaration Packet on completion of the education and examination requirements. Prior to certification, the CFP[®], AWP^{CM} or AFP[®] candidate will be required to disclose past or pending litigation or agency proceedings and to acknowledge the right of FPAS to enforce its Professional Standards and Code of Ethics through due process described.

Continuing Education

Once certified, CFP[®] licensees must fulfil a biennial continuing education requirement of 30 hours to stay up to date on planning strategies and financial trends affecting their clients.

In addition, the FPAS monitors compliance with its Professional Standards and Code of Ethics by requiring an annual disclosure statement and by investigating consumer complaints and licensees' periodic disclosures of investigations or legal proceedings.

AWP^{CM} and AFP[®] licensees will also have a continuing education requirement, although it is less onerous.

3.4.6.2 MAS – Regulatory Licensing

The Financial Adviser's License is a license Administered under the Financial Advisers Act (FAA).

Admission Criteria for Financial Adviser's License

In assessing an application for a financial adviser's license, MAS takes into consideration, *inter alia*, the following factors:

- the track record, management expertise and financial soundness of the applicant and its parent company or major shareholders;
- ability to meet the minimum financial requirements and professional indemnity insurance requirements prescribed under the FAA;
- strength of internal compliance systems;
- business plans and projections; and
- fitness and propriety. In this respect, the applicant shall satisfy MAS that
 - (i) it is a fit and proper person to be licensed;
 - (ii) all its directors and chief executive officer are fit and proper persons to hold the office; and
 - (iii) all its substantial shareholders and representatives are fit and proper persons.

Appointment of Representatives

Individuals who wish to provide financial advisory services on behalf of a licensed financial adviser or an exempt financial adviser under section 23(1)(a) to (e) of the FAA are required to be appointed as an appointed or provisional representatives under the Representative Notification Framework [“RNF”].

Individuals to be appointed must:

- be at least 21 years old;
- satisfy the minimum academic qualification and examination requirements as prescribed in the Notice on Minimum Entry and Examination Requirements for Representatives of Licensed Financial Advisers and Exempt Financial Advisers (Notice No. FAA - N13); and
- satisfy the fit and proper criteria set out in the Guidelines on Fit and Proper Criteria issued by the Authority (Guideline No. FSG-G01)

3.5 MAS NOTICES AND GUIDELINES

The Financial Advisers Act came into force in November 2002, and since then several written directions were issued to provide more specific guidelines for the application of the FAA. In this section we will discuss the most important MAS Notices and Guidelines, which are relevant to every financial adviser. Please refer to MAS website to learn more about all the MAS Notices and Guidelines relating to FAA.

FAA-N01: Notice on Recommendations on Investment Products

Notice FAA-N01 contains detailed requirements as regards the recommendations which a financial adviser is allowed to make on an investment product. The Notice serves as an elaboration of the Act which in summary provides that:

- no financial adviser (licensed or exempt) shall make a recommendation with respect to any investment product to a person who may reasonably be expected to rely on the recommendation if the financial adviser does not have a reasonable basis for making the recommendation to that person;
- a financial adviser is deemed not to have a reasonable basis for making a recommendation unless he has, after having regard to all relevant information, reasonably considered and investigated the subject matter of the recommendation and the recommendation is based on such consideration and investigation;
- where a recommendation which contravenes these requirements is made to a person who reasonably relies on it to do an act or refrain from doing any act, that person shall be entitled to damages against the financial adviser if he is able to show that he suffered loss and damage because of his reliance on the recommendation.

The Notice sets out its requirements under three general headings:

- know your client;
- needs analysis;
- documentation and record keeping.

Under these general headings, a financial adviser is, inter alia, required to:

- understand the financial objectives of the investing client, the risk tolerance of the client, the employment status and financial situation of the client and the client's current investment portfolio. The financial adviser is required to state in writing that the information furnished by the client forms the basis of the financial adviser's recommendation and further that any inaccurate or incomplete information given by the client will affect the recommendation;
- conduct a needs analysis based on the information furnished by the client and explain to the client the basis of the recommendation eventually made. This basis is required to be documented. If the client chooses not to accept the recommendation made, the decision of the client is also required to be documented;
- furnish to the client specific documents. In the case of designated investment products, this includes prospectuses, profile statements, product summaries and benefit illustrations. The financial adviser is also required to render a written summary of the information gathered from the client as well as the recommendation made by the financial adviser and the basis for the recommendation. If the client chooses not to give any information to the financial adviser, or to receive the financial adviser's recommendation or to accept the same, a statement to such effect must be given to the client.

FAA-03: Notice on Information to Clients and Product Information Disclosure

Notice FAA-N03 was promulgated under section 25 and 26 of the FAA. Section 25 obliges the financial adviser to 'disclose, to every client and prospective client, all material information relating to any designated investment product that is recommended to such person'. These include:

- the terms and conditions of the designated investment product; and
- the benefits to be, or likely to be, derived from the designated investment product, and the risks that may arise from the designated investment product.

Section 26 provides that no financial adviser shall, with intent to deceive, make a false or misleading statement as to any amount that would be payable in respect of a proposed contract in respect of any investment product or as to the effect of any provision of a contract or a proposed contract in respect of any investment product.

Notice FAA-N03 sets out the standards of conduct to be maintained by the financial adviser with respect to the information to be furnished to the investing client. In this sense, it may be said to embellish Notice FAA-N01. The Notice, however, goes beyond simply placing a positive obligation on the financial adviser to furnish certain information. It also provides that the financial adviser is not to make false and misleading statements and is to ensure that it does not omit any matter which is material to any statement of information made.

The Notice sets out general disclosure principles which a financial adviser is expected to meet. This

includes the use of plain language and giving sufficient information to the client in accordance with ‘industry best practices’ to help the client to make an informed decision. Warnings and important information such as the nature and objective of the investment product, the risks involved, the fees and charges, and the contractual rights and obligations of the client are required to be ‘prominently presented and clearly explained’. Financial advisers are further required to disclose information to clients which is unambiguous, objective, and unbiased. Where statements of opinion are expressed, the Notice requires that there should be a reasonable basis for expressing the opinion and further that it be ‘unambiguously stated that it is a statement of opinion’. Documents which are given to clients are required to be kept up-to-date and reviewed annually.

Specific disclosure requirements are also set out in the Notice. Of these specific requirements, the following are of note:

- (1) the financial adviser is required to disclose, in writing, to its clients any actual or potential conflict of interest arising from any connection to or association with any product provider, including any material information or facts that may compromise its objectivity or independence in the provision of financial advisory services;
- (2) in respect of designated investment products, the financial adviser is required:
 - to disclose and explain to the client the party against which the client may take action to enforce his rights with respect to the product purchased;
 - to disclose and explain to the client all warnings, exclusions, and disclaimers in relation to the product it has recommended to the client;
 - when using any forecast on the economy, stock market, bond market and economic trends of the markets, advise the client that such forecast is not necessarily indicative of the future or likely performance of the product. The same pertains to using information on the past performance of the product.

FAA-06: Notice on Prevention of Money Laundering and Countering the Financing of Terrorism

This Notice is based on the following principles, which shall serve as a guide for all financial advisers in the conduct of their operations and business activities:

- A financial adviser must exercise due diligence when dealing with customers, persons appointed to act on the customer’s behalf and beneficial owners.
- A financial adviser must conduct its business in conformity with high ethical standards, and guard against undertaking any transaction that is or may relate to or may facilitate money laundering or terrorist financing.
- A financial adviser should, whenever possible and to the fullest extent possible, assist and cooperate with the relevant law enforcement authorities in Singapore in preventing money laundering and terrorist financing.

The Notice sets out the obligations of a financial adviser to take measures to help mitigate the risk of the financial advisory market in Singapore being used for money laundering or terrorist financing.

Section 4 of the Notice deals with customer due diligence (“CDD”) measures. This paragraph sets out the standard CDD measures to be applied, of which there are seven principal components:

- i. Identification of the customer by obtaining certain information pertaining to the customer and, where the customer is not a natural person, certain other persons associated with that customer;
- ii. Verifying the identification information obtained;
- iii. Where the customer is not a natural person, identifying and verifying the identity of the natural persons appointed to act on the customer’s behalf;
- iv. Determining if there exists any beneficial owner and applying the identification and verification procedures to those beneficial owners;
- v. Where business relations are to be established, obtaining information as to the nature and purpose of the intended business relations;
- vi. After business relations are established, conducting ongoing monitoring of business relations; and
- vii. Reviewing periodically the adequacy of customer information after business relations are established.

Section 5 and 6 of the Notice provide for the risk-based customisation of the CDD measures. Thus, section 5 on simplified CDD allows a financial adviser to take lesser measures than those specified in section 4 of the Notice provided that the conditions for simplified CDD are met. This will largely be a matter for individual financial advisers to assess, but the financial adviser must be able to justify its decision. Conversely, in situations where politically exposed persons (“PEP”) may be involved or in other situations where there is a higher risk of money laundering or terrorist financing, a financial adviser is required under section 6 of the Notice to take enhanced CDD measures.

To cater to cross-referrals, section 7 of the Notice allows a financial adviser to rely on another party, an intermediary, to perform certain elements of the CDD process, provided that certain conditions are met. This paragraph may typically be applied where a new customer is introduced to the financial adviser by an intermediary resulting in direct business relations between the financial adviser and the new customer. Thus, if the intermediary has already performed its own CDD on the new customer, then section 7 allows the financial adviser to dispense with performing CDD on the new customer if the conditions are satisfied. Section 7 is not intended to cover the situation where a financial adviser outsources the function of performing CDD measures to a third party.

Client On Boarding Process

Know client on-boarding procedures (Know Your Customer / Anti Money Laundering). Illustrate situations where the sufficiency, relevancy, and actions of prospective clients call into question the authenticity of legal transactions.

Singapore has established a strict and rigorous anti-money laundering (AML) and countering the financing of terrorism (CFT) regime through its comprehensive and sound legal, institutional, policy and supervisory frameworks to ensure that Singapore is not a haven for money launderers and terrorist financiers.

Financial institutions operating in Singapore are required to put in place robust controls to detect and deter the flow of illicit funds through Singapore’s financial system. Such controls include the need for financial institutions to identify and know their customers (including beneficial owners), to conduct regular account reviews, and to monitor and report any suspicious transaction.

Under the MAS Act, a financial institution that fails or refuses to comply with the requirements of its applicable AML/CFT Notice is guilty of an offence and will be liable on conviction to a fine not exceeding \$1 million.

Seven Principle Components Underlying MAS Notice 626

It is important that proper standard of Customer Due Diligence (CDD) is applied as part of any client onboarding process of any financial advisory firm:

1. Identification of the customer by obtaining certain information pertaining to the customer and, where the customer is not a natural person, certain other persons associated with that customer;
2. Verifying the identification information obtained;
3. Where the customer is not a natural person, identifying and verifying the identity of the natural persons appointed to act on the customer's behalf;
4. Determining if there exists any beneficial owner and applying the identification and verification procedures to those beneficial owners;
5. Where business relations are to be established, obtaining information as to the nature and purpose of the intended business relations;
6. After business relations are established, conducting ongoing monitoring of business relations; and
7. Reviewing periodically the adequacy of customer information after business relations are established.

The primary objective of CDD is to enable effective identification and reporting of suspicious activities. The underlying assumption is that, unless you truly know your client, and well enough to understand and anticipate that client's business behaviour, you can neither reasonably nor effectively distinguish unusual and possibly suspicious activity from usual and customary behaviour.

CDD requires or recommends developing a thorough understanding, through appropriate due diligence, of the true beneficial parties to transactions, the source and intended use of funds and the appropriateness and reasonableness of the business activity and pattern of transactions in the context of the business.

Initial CDD information assists in client acceptance decisions and enables the professional firms to form expectations of their client's behaviour which provides some assistance on detecting potentially suspicious behaviour during the business relationship.

The following CDD measures shall be taken:

- a) Identifying the client;
- b) Identifying the beneficial owner;
- c) Verifying that client's identity using reliable, independent source documents, data, or information, and taking reasonable measures to verify the identity of the beneficial owner, such that the professional firm is satisfied that it knows who the beneficial owner is. For legal persons and arrangements, this shall include professional firms understanding the ownership and control structure of the client;
- d) Understanding and, as appropriate, obtaining information on the purpose and intended nature of the business relationship; and
- e) Conducting ongoing due diligence on any continuing business relationship and scrutiny of

transactions (if any) undertaken throughout the course of that relationship to ensure that the transactions being conducted are consistent with the professional firm's knowledge of the client, their business and risk profile, including, where necessary, the source of funds.

Possible Examples of Money Laundering Transactions

1. The client provides minimal, vague, or fictitious information that cannot be readily verified.
2. The referrer is especially guarded about his/her client.
3. The client is in an undue hurry to complete the purchase.
4. The client seems disinterested about the features/benefits of the product or lack of concern over commissions or transaction costs. Suspicion should be heightened if client show more interest in cancellation terms.
5. The transaction price could be unusually significant and/or payments are made using cash, money order or travellers' cheques.
6. The client is not able to account for the source of payment from his or her income or assets. For instance, A customer usually purchases small policies, suddenly requests a large lump-sum contract or purchase products which are inconsistent with his/her age, income, employment or history.
7. The client tells you that funds are coming from one source, and at the last minute the source changes.
8. Payments arrive from several individuals or sources (payments made through mainstream banking system are not guaranteed to be clean)
9. Client requests an unusual or non-customary way to handle the transaction.
10. The client requests to settle the sale through means outside of a recognized clearing system.
11. The financial product is immediately sold/terminated entailing significant losses; or redemption of a policy which is unusually early or does not make good economic sense. For example, purchasing one or more single premium investment-linked policies, then cashing them in a short time later.
12. Making over-payment on a policy, then asking for a refund
13. Making a large investment, then asking for a refund after the 14-day free-look or cooling-off period
14. The transaction involves a recently created legal entity, and in your estimation, the transaction amount is large compared to new entity's assets.
15. Paying a large "top-up" into an existing life insurance policy
16. Purchasing a general insurance policy, then making a claim soon after
17. A customer who wishes to fund its policy using payments from a third party
18. Where the relationship between the policyholder and beneficiary seems unusual
19. "Structuring" – i.e., purchasing several policies just under the reportable limit, instead of purchasing one large policy (in some countries all transactions over a certain limit must be reported to the Government)
20. Channelling payments through offshore banks
21. Purchasing an annuity with a lump sum rather than paying regular premiums over a period, particularly if the beneficiary is of an age which entitles him to receive the funds soon after
22. The funds coming from another country, particularly high-risk jurisdictions
23. A customer who wants to pay a large premium with foreign currency or by way of wire transfer

If there is any cause for concern or suspicion in any transaction, the financial adviser must escalate the matter to his immediate supervisor or proper reporting channel without necessarily alerting the client in question.

3.6 OTHER RELATED REGULATIONS

3.6.1 Personal Data Protection Act (PDPA)

Personal data refers to data, whether true or not, about an individual who can be identified from that data; or from that data and other information to which the organisation has or is likely to have access. Personal data in Singapore is protected under the Personal Data Protection Act 2012 (PDPA).

The PDPA establishes a data protection law that comprises various rules governing the collection, use, disclosure, and care of personal data. It recognises both the rights of individuals to protect their personal data, including rights of access and correction, and the needs of organisations to collect, use or disclose personal data for legitimate and reasonable purposes.

The PDPA provides for the establishment of a national Do Not Call (DNC) Registry. The DNC Registry allows individuals to register their Singapore telephone numbers to opt out of receiving marketing phone calls, mobile text messages such as SMS or MMS, and faxes from organisations.

Objectives of the Personal Data Protection Act

Today, vast amounts of personal data are collected, used, and even transferred to third party organisations for a variety of reasons. This trend is expected to grow exponentially as the processing and analysis of large amounts of personal data becomes possible with increasingly sophisticated technology.

With such a trend comes growing concerns from individuals about how their personal data is being used. Hence, a data protection regime to govern the collection, use and disclosure of personal data is necessary to address these concerns and to maintain individuals' trust in organisations that manage data.

By regulating the flow of personal data among organisations, the PDPA also aims to strengthen and entrench Singapore's competitiveness and position as a trusted, world-class hub for businesses.

How does the Personal Data Protection Act Work?

The PDPA will ensure a baseline standard of protection for personal data across the economy by complementing sector-specific legislative and regulatory frameworks. This means that organisations will have to comply with the PDPA as well as the common law and other relevant laws that are applied to the specific industry that they belong to, when handling personal data in their possession.

The PDPA considers the following concepts:

- Consent – Organisations may collect, use, or disclose personal data only with the individual's knowledge and consent (with some exceptions);
- Purpose – Organisations may collect, use, or disclose personal data in an appropriate manner for the circumstances, and only if they have informed the individual of purposes for the collection, use or disclosure; and
- Reasonableness – Organisations may collect, use, or disclose personal data only for purposes that would be considered appropriate to a reasonable person in the given circumstances.

Application of the Personal Data Protection Act

The PDPA covers personal data stored in electronic and non-electronic forms.

The data protection provisions in the PDPA (parts III to VI) generally do not apply to:

- Any individual acting in a personal or domestic basis.
- Any employee acting during his or her employment with an organisation.
- Any public agency or an organisation while acting on behalf of a public agency in relation to the collection, use or disclosure of the personal data. You may wish to refer to the Personal Data Protection (Statutory Bodies) Notification 2013 for the list of specified public agencies.
- Business contact information. This refers to an individual's name, position name or title, business telephone number, business address, business electronic mail address or business fax number and any other similar information about the individual, not provided by the individual solely for his or her personal purposes.

These rules are intended to be the baseline law which operates as part of the law of Singapore. It does not supersede existing statutes, such as the Banking Act and Insurance Act but will work in conjunction with them and the common law.

The PDPA took effect in phases starting with the provisions relating to the formation of the PDPC on 2 January 2013. Provisions relating to the DNC Registry came into effect on 2 January 2014 and the main data protection rules on 2 July 2014. This allowed time for organisations to review and adopt internal personal data protection policies and practices, to help them comply with the PDPA.

3.6.2 Singapore Deposit Insurance Corporation Limited (SDIC)

Singapore consumers enjoy the benefits of a sound banking system. Banks and finance companies licensed in Singapore are supervised by the Monetary Authority of Singapore (MAS). It is MAS' aim to ensure the stability of the banking system in Singapore and to require financial institutions to have sound risk management systems and adequate internal controls.

However, MAS does not guarantee the soundness of individual financial institutions. Therefore, a Deposit Insurance Scheme and a Policy Owners' Protection Scheme (PPF Scheme) have been set up to protect the core savings of small depositors in Singapore in the event a full bank or finance company fails.

Singapore Deposit Insurance Corporation Limited (SDIC) administers the Deposit Insurance Scheme and Policy Owners' Protection Scheme (PPF Scheme) in Singapore. SDIC is a company limited by guarantee under the Companies Act. The board of directors is accountable to the Minister in charge of the Monetary Authority of Singapore (MAS).

The main functions of SDIC under the Deposit Insurance Scheme (DI Scheme) are to collect premium contributions from DI Scheme members, manage the Deposit Insurance Fund, compensate insured depositors, and educate the public on the DI Scheme. In respect of the PPF Scheme, the main functions of SDIC are to collect levies from PPF Scheme members, manage the Policy Owners' Protection Life Fund and the Policy Owners' Protection General Fund, make compensation payments, and educate the public on the PPF Scheme.

Scope of PPF Scheme Coverage

Types of policy owners protected

Protection is for policy owners of life or general insurance policies covered under the PPF Scheme and issued by life or general insurers which are PPF Scheme members. The policy owners may be individuals or non-individuals, such as companies.

Types of life insurance policies covered

The PPF Scheme protects all life insurance policies (including riders) issued by registered life insurers which are PPF Scheme members. This would include policies issued to non-Singapore residents (offshore policies), but not policies issued by overseas branches of a registered life insurer incorporated in Singapore. Examples of life insurance policies include the following:

- Individual term policies
- Individual whole life policies
- Individual endowment policies
- Individual annuities
- Individual short-term or long-term accident & health (A&H) policies (e.g., Hospital cash, Medical Expense, Personal Accident, Disability Income, Long-term Care)
- Group term policies
- Group whole life policies
- Group endowment policies
- Group annuities
- Group short-term and long-term accident & health (A&H) policies

Any accumulated values, including interest accrued on such values, of coupon deposits, advance premium payments and unclaimed moneys under all insured policies are also covered. Each PPF Scheme member maintains a register of insured policies it offers. To find out if a policy offered by your insurer is covered, you can refer to the institution's register of insured policies.

Types of general insurance policies covered

The PPF Scheme protects all compulsory insurance policies under the Motor Vehicles (Third Party Risks and Compensation) Act and Work Injury Compensation Act and Singapore policies of specified lines issued by registered direct general insurers which are PPF Scheme members. A Singapore policy insures risks arising in Singapore or where the insured is a Singapore resident or has a permanent establishment in Singapore. The types of specified lines covered are:

- Personal motor insurance policies
- Personal travel insurance policies
- Personal property (structure and contents) insurance policies
- Foreign domestic maid insurance policies
- Individual and group short- term A&H policies

Each PPF Scheme member maintains a register of insured policies it offers. To find out if a policy offered by your insurer is covered, you can refer to the institution's register of insured policies.

3.7 RESOLVING A FINANCIAL DISPUTE

An integral part of ensuring consumers obtain a fair deal involves making available mechanisms that provide them with an independent and affordable avenue for resolving disputes with their financial institutions.

In May 2004, MAS formed an Integration Steering Committee to facilitate the move towards an integrated dispute resolution scheme for the financial sector. The Committee has decided to set up an independent company, under the name of Financial Industry Disputes Resolution Centre (FIDReC).

The Financial Industry Disputes Resolution Centre Ltd (FIDReC) is an independent and impartial institution specialising in the resolution of disputes between financial institutions and consumers. FIDReC subsumes the work of the Consumer Mediation Unit (CMU) of the Association of Banks in Singapore and the Insurance Disputes Resolution Organisation (IDRO).

FIDReC was initiated by the financial sector to make its services more professional, transparent, customer focused and service oriented. It was officially launched on 31 August 2005. FIDReC provides an affordable and accessible one-stop avenue for consumers to resolve their disputes with financial institutions. It also streamlines the dispute resolution processes across the entire financial sector of Singapore.

Dispute Resolution Process

The dispute resolution process of FIDReC comprises two stages:

- Mediation (1st Stage)
- Adjudication (2nd Stage)

Mediation (1st Stage)

When a complaint is first received, it is case managed by FIDReC's Case Manager. The consumer and the financial institution are encouraged to resolve the dispute in an amicable and fair manner.

In appropriate cases, the Case Manager mediates the dispute between the parties. Adjudication (2nd Stage)

Where the dispute is not settled by mediation, the case is heard and adjudicated by a FIDReC Adjudicator or a Panel of Adjudicators.

At adjudication, parties and their witnesses (if any) attend an adjudication hearing conducted by a FIDReC Adjudicator.

The written arguments and documents of both parties are exchanged before the Adjudication hearing. Both parties are given time to review the arguments and documents before the adjudication hearing. At the hearing, parties present their case and are afforded adequate opportunities to address questions to the other party.

The Adjudicator hears all relevant evidence presented (both written and oral), assesses the case and

comes to a decision based on the facts and merits of each case. The Adjudicator will also ask both parties relevant questions to elicit relevant facts so that he or she can arrive at a fair and impartial decision. After the Adjudicator has decided, the grounds of the decision will be read to both parties.

FIDReC's adjudicators include retired judges, lawyers including senior counsel and retired industry professionals. The decision of the Adjudicator is binding on the Financial Institution, but not on the consumer.

3.8 BUSINESS ORGANIZATIONS AND COMPANY LAW

In Singapore, apart from the industry specific licensing requirements that businesses must comply with, all businesses fall under regulatory purview of the Accounting and Corporate Regulatory Authority (ACRA).

The ACRA is the national regulator of business entities and public accountants in Singapore. In relation to business entities, the mission of ACRA is to provide a responsive and trusted regulatory environment for businesses and its role is to achieve synergies between the monitoring of corporate compliance and the disclosure requirements.

ACRA was formed as a statutory board on 1 April 2004 with the merger of the then Registry of Companies and Businesses (RCB), and the Public Accountants' Board (PAB).

Amongst other functions, ACRA is responsible to administer the Accounting and Corporate Regulatory Authority Act (Cap 2A), the Accountants Act (Cap 2), the Business Registration Act (Cap 32), the Companies Act (Cap 50), the Limited Liability Partnerships Act (Cap 163A) and the Limited Partnerships Act 2008 (Act 37 of 2008).

Types of Business Organizations

Businesses in Singapore are mainly set up using the following structures:

- Sole Proprietorship
- Partnership
- Company

The following types of businesses are less popular but may be preferred in certain niche industries:

- Limited Partnership
- Limited Liability Partnership
- Business Trust
- Registered Business Trust

In Singapore, companies are governed by the Companies Act (Cap 50, 1994 Rev Ed). It should be noted that specific types of companies may, in addition to the Companies Act, be regulated by other statutes.

For example, insurance companies and banks are also regulated by the Insurance Act (Cap 142, 1994

Rev Ed) and the Banking Act (Cap 20, 1994 Rev Ed) respectively. Limited liability partnerships, which despite their name are companies, are governed by the Limited Liability Partnership Act (Act 5 of 2005). Certain provisions in other statutes such as the Securities and Futures Act (Cap 289, 1994 Rev Ed) are also relevant to companies.

Sole Proprietorship

A Sole Proprietorship is a business that is owned by one person or one company. There are no partners. The sole proprietor has absolute say in the running of the business.

Under the Business Registration Act, Cap. 32, “business” includes every form of trade, commerce, craftsmanship, calling, profession, and any activity carried on for the purposes of gain but does not include any office, employment or occupation, or any of the businesses specified in the First Schedule.

The sole proprietorship is the simplest organization type.

The law does not regard the sole proprietorship business as a different entity from its proprietor. So, all rights that the business has are rights that belong to the proprietor. Similarly, all liabilities or debts that are incurred by the business are in law the liabilities or debts of the proprietor. The assets and profits that the business generates are owned by the proprietor who is personally liable to pay whatever tax payable in respect of these assets and profits. Should the proprietor die, the business will cease to exist.

Partnership

A ‘Partnership’ is formed where two or more persons carry on a business in common with a view to making profit. A business partnership is also known as a ‘firm’.

Generally, the maximum number of partners allowed in a partnership is 20. The partners can either be individuals or bodies corporate. Should more than 20 persons wish to carry on business together, they will have to do so through a Company (unless the partnerships are formed solely or mainly for the purpose of carrying on any profession that is regulated by other legislation such as law firms, accounting firms, and medical practices).

The law does not treat a partnership as a separate legal entity from its partners. The partners collectively own the assets of the partnership and are each individually liable for the debts and liabilities of the partnership.

Each partner is personally liable for the full amount of debt owing by the partnership without any limit. Partners are taxed individually on their share of the partnership’s profits.

General rules governing Partnerships may be found in the Partnership Act (Cap 391).

Limited Partnership

A Limited Partnership (LP) is a partnership consisting of a minimum of two partners, with at least one general partner and at least one limited partner. An LP does not have a separate legal entity from the partners, i.e., it cannot sue or be sued or own property in its own name.

An individual or a corporation may be a general partner or a limited partner. Appointing a local manager is not mandatory unless all the general partners are residing outside Singapore. A general partner is responsible for the actions of an LP and liable for all debts and obligations of the LP. A limited partner is not liable for debts and obligations of the LP beyond his agreed contribution, provided he does not take part in the management of the LP.

LPs are in essence Partnerships. They are not separate from their constituent partners. The Partnership Act as well as the general law applicable to Partnerships applies to LPs subject to the provisions of the Limited Partnerships Act 2008 (Cap 163B).

The Limited Partnership ('LP') was introduced in 2009 and is the most recent business form to be introduced to Singapore.

Limited Liability Partnership

A Limited Liability Partnership ('LLP') is a business organization comprising two or more persons associated for carrying on a lawful business with a view to profit that is registered as such under the Limited Liability Partnerships Act 2005 (Cap 163A).

Despite its name, it is not regarded as a partnership and general partnership law does not apply to LLPs. This means that the LLP is seen as a body corporate and has a legal personality separate from its partners. The LLP has perpetual succession, which means any change in the partners of an LLP will not affect its existence, rights, or liabilities. The LLP is liable for its own debts and the partners and managers of the LLP cannot be made liable for such debts. Each of the partners are assessed and taxed individually on their respective share of the profits in the LLP.

Every partner of the LLP is regarded as an agent of the LLP. However, the LLP is not bound by the acts of a partner which are not authorized where either this fact is known to the person dealing with the partner or the person does not know or believe the partner to be a partner in the LLP.

An LLP gives owners the flexibility of operating as a partnership while having a separate legal identity like a private limited company.

Company

A Company is an entity that is registered under the Companies Act (Cap 50). It has its own legal personality (it has rights to own properties, has perpetual succession and can sue or be sued in its own name) that is distinct from its members and the persons who manage the company. Companies can therefore own property and sue or be sued in their own names. They are recognized as taxable entities.

The Companies Act (Cap 50) contemplates different types of companies. Companies may be classified

according to whether they are “private” or “public” as well as according to their members’ liability, and they usually have the words ‘Pte Ltd’ or ‘Ltd’ as part of its name.

A private company is one whose memorandum or articles of association (i) restricts the right of its members to transfer their shares in the company; and (ii) limits the number of members that the company can have to not more than 50. The restriction on the right to transfer shares in a private company usually takes the form of a requirement that the transfer be first approved by the company’s board of directors or a requirement that the shares be first offered to be transferred to existing shareholders.

An Exempt Private Company is a private company (i) that has not more than 20 shareholders, and none of the shareholders is a corporation or (ii) that is wholly owned by the Government and which the Minister, in national interest, declares by notification in the Gazette to be an exempt private company.

Any company that is not a private company is a public company. Public companies may or may not be listed on a stock exchange. Where they are so listed, they are usually referred to as “listed companies” and must comply with the rules and regulations of the stock exchange on which they are listed.

Most companies (whether private or public) are companies that are “limited by shares”. This means that they are formed on the principle that the liability of their members is limited to the amount, if any, unpaid on the shares that the members respectively hold. A public company limited by shares is a locally incorporated company in which the number of shareholders can be more than 50.

The company may raise capital by offering shares and debentures to the public. A public company must register a prospectus with the Monetary Authority of Singapore before making any public offer of shares and debentures.

A public company can be “limited by guarantee”. Such companies are formed on the principle of having the liability of their members limited to the respective amounts that the members guarantee to contribute to the property of the company if it is wound up. A public company limited by guarantee is one which carries out non-profit making activities that have some basis of national or public interest, such as for promoting art, or charity etc. The Minister may approve the registration of the company without the addition of the word “Limited” or “Berhad” to its name. Finally, private or public companies can be set up as “unlimited companies”. Here, there is no limit placed on the liability of the company’s members for the debts of the company.

Companies limited by shares are the most appropriate form of company for the conduct of business activities, and consequently the most used for business. As such, the discussion below will focus primarily on such companies.

- Members / Shareholders

A person can become a member either by subscribing for shares in the company or by purchasing the company's shares from another person. The key rights and obligations of the members in relation to each other and to the company may be found in the Companies Act as well as in the company's constitutional documents. Members of a company are most referred to as 'shareholders'.

The main rights that members have include:

- The right to be given notice of and to attend and participate in general meetings of members;
- The right to be treated fairly and to have the provisions of the company's constitutional documents complied with;
- The right to make some key decisions in relation to the company through the general meeting (these include matters such as the appointment and removal of directors and auditors of the company; the issue of shares and the amendment of the company's constitutional documents);
- The right to a share of declared dividends (dividends can only be declared out of available profits); and
- The right to have the company wound up in specified circumstances and to share in the residual assets of the company.

Members are not liable for the debts of the company.

- Directors

The responsibility for managing a company generally lies with the company's Board of Directors ("the Board"). The members of the Board may also be members and / or employees of the company. In larger companies, however, it is common for some of the Board members not to be employees of the company. Board members have onerous duties towards the company. These include the duty to act honestly, with reasonable care, skill, and diligence in the conduct of the company's affairs and the duty to act in the best interests of the company generally.

The table below summarizes the similarities and differences between the five forms of business organizations outlined above.

COMPARISON OF THE FORMS OF BUSINESS ORGANISATIONS

	Sole-Proprietorship	Partnership	Limited Partnership (LP)	Limited Liability Partnership (LLP)	Company
Definition	A business owned by one person	An association of two or more persons carrying on business in common with a view to profit	A partnership consisting of two or more persons, with at least one general partner and one limited partner	A partnership where the individual partner's own liability is generally limited	A business form which is a legal entity separate and distinct from its shareholders and directors

	Sole-Proprietorship	Partnership	Limited Partnership (LP)	Limited Liability Partnership (LLP)	Company
Owned by	One person	Generally, between 2 and 20 partners. A partnership of more than 20 partners must incorporate as a company under the Companies Act, Chapter 50 (except for professional partnerships)	At least 2 partners; one general partner and one limited partner. No maximum limit.	At least 2 partners, no maximum limit.	Exempt Private Company – 20 members or less and no corporation holds beneficial interest in the company's shares Private Company – 50 members or less Public Company – can have more than 50 members
Legal Status	<p>Not a separate legal entity</p> <p>Owner has unlimited liability</p> <p>Can sue or be sued in individual's own name</p> <p>Can also be sued in business name</p> <p>Can own property in individual's name</p> <p>Owner personally liable for partnership's debts and losses incurred by other partners</p>	<p>Not a separate legal entity</p> <p>Partners have unlimited liability</p> <p>Can sue or be sued in firm's name</p> <p>Cannot own property in firm's name</p> <p>Partners personally liable for partnership's debts and losses incurred by other partners</p>	<p>Not a separate legal entity</p> <p>General partner has unlimited liability</p> <p>Limited partner has limited liability</p> <p>Can probably sue or be sued in firm's name</p> <p>Cannot own property in firm's name</p> <p>General partner personally liable for debts and losses of the LP</p> <p>Limited partner not personally liable for the debts or obligations of LP beyond amount of his agreed contribution</p>	<p>A separate legal entity from its partners</p> <p>Partners have limited liability</p> <p>Can sue or be sued in LLP's name</p> <p>Can own property in LLP's name</p> <p>Partners personally liable for debts and losses resulting from their own wrongful actions</p> <p>Partners not personally liable for debts and losses of LLP incurred by other partners</p>	<p>A separate legal entity from its members and directors</p> <p>Members have limited liability</p> <p>Can sue or be sued in company's name</p> <p>Can own property in company's name</p> <p>Members not personally liable for debts and losses of company</p>

	Sole-Proprietorship	Partnership	Limited Partnership (LP)	Limited Liability Partnership (LLP)	Company
Registration Requirements	<p>Age 18 years or above. Singapore citizen/ Singapore permanent resident/ Employment Pass/ Dependent Pass holder.</p> <p>If owner not resident in Singapore, he must appoint a local manager who is ordinarily resident in Singapore</p> <p>Self-employed persons must top up their Medisave account with the CPF Board before they register a new business name, become a registrant of an existing business name, or renew their business name registration</p> <p>Undischarged bankrupts cannot manage business without court or Official Assignee's approval</p>	<p>Age 18 years or above. Singapore citizen/ Singapore permanent resident/ Employment Pass/ Dependent Pass holder.</p> <p>If owners not resident in Singapore, they must appoint a local manager who is ordinarily resident in Singapore</p> <p>Self-employed persons must top up their Medisave account with the CPF Board before they register a new business name, become a registrant of an existing business name, or renew their business name registration</p> <p>Undischarged bankrupts cannot manage business without court or Official Assignee's approval</p>	<p>At least one general partner and limited partner. Both can be individuals (at least 18 years old) or body corporate (company or LLP).</p> <p>If all general partners are ordinarily resident outside Singapore, they must appoint a local manager who is ordinarily resident in Singapore</p> <p>Self-employed persons must top up their Medisave account with the CPF Board before they register as a partner of a new LP, become a registered partner of an existing LP, or renew their LP registration</p> <p>Undischarged bankrupts cannot manage business without court or Official Assignee's approval</p>	<p>At least two partners, who can be individuals (at least 18 years old) or body corporate (company or LLP)</p> <p>At least one manager ordinarily resident in Singapore and at least 18 years old</p> <p>Undischarged bankrupts cannot manage business without court or Official Assignee's approval</p>	<p>At least one shareholder</p> <p>At least one director ordinarily resident in Singapore, at least 18 years old</p> <p>If a foreigner wishes to act as a local director of the company, he can apply for an EntrePass from the Ministry of Manpower</p> <p>Undischarged bankrupts cannot be a director and cannot manage a company without court or Official Assignee's approval</p>

	Sole-Proprietorship	Partnership	Limited Partnership (LP)	Limited Liability Partnership (LLP)	Company
Formalities and Expenses	<p>Quick and easy to set up</p> <p>Easy to administer and manage</p> <p>Registration cost is minimal</p> <p>Less administrative duties to adhere to</p> <p>Must renew registration annually</p>	<p>Quick and easy to set up</p> <p>Easy to administer and manage</p> <p>Registration cost is minimal</p> <p>Less administrative duties to adhere to</p> <p>Must renew registration annually</p>	<p>Quick and easy to set up</p> <p>Easy to administer and manage</p> <p>Registration cost is minimal</p> <p>Less administrative duties to adhere to</p> <p>Must renew registration annually</p>	<p>Quick and easy to set up</p> <p>Fewer formalities and procedures to comply with than a company</p> <p>Registration cost is relatively minimal and fewer regulatory duties to adhere to than a company</p> <p>No statutory requirement for general meetings, directors, company secretary, share allotments, etc.</p> <p>Only an annual declaration of solvency must be lodged by one of the managers stating whether the LLP is able or not able to pay its debts during the normal course of business</p> <p>One time registration</p>	<p>More costly to set up and maintain</p> <p>More formalities and procedures to comply with</p> <p>Must appoint a company secretary within 6 months of incorporation</p> <p>Must appoint an auditor within 3 months after incorporation unless the company is exempt from audit requirements</p> <p>Annual Returns must be filed</p> <p>Statutory requirements for general meetings, directors, company secretary, share allotments, etc.</p>
Set Up Fee	\$65 (\$15 name application fee and \$50 registration fee)	\$65 (\$15 name application fee and \$50 registration fee)	\$65 (\$15 name application fee and \$50 registration fee)	\$165 (\$15 name application fee and \$150 registration fee)	\$315 (\$15 name application fee and \$300 incorporation fee)
Taxes	Profits taxed at owner's personal income tax rates	Profits taxed at partners' personal income tax rates	Profits taxed at partners' personal income tax rates (if individual)/ corporate tax rate (if corporation)	Profits taxed at partners' personal income tax rates (if individual)/ corporate tax rate (if corporation)	Profits taxed at corporate tax rates

	Sole-Proprietorship	Partnership	Limited Partnership (LP)	Limited Liability Partnership (LLP)	Company
Continuity in Law	Exists as long as the owner is alive and desires to continue the business	Exists subject to partnership agreement	Exists subject to partnership agreement If there is no limited partner, the LP registration will be suspended and general partners are deemed registered under the Business Registration Act Once a new limited partner is appointed, the registration of the LP will be restored to "live" and general partners' registration under the Business Registration Act ceases	The LLP has perpetual succession until wound up or struck off	A company has perpetual succession until wound up or struck off
Closing the Business	By Owner – Cessation of business Registrar can cancel registration if not renewed or where Registrar is satisfied business is defunct	By the partners – Cessation of business or dissolution of partnership Registrar can cancel registration if not renewed or where Registrar is satisfied business is defunct	By general partner – cessation of business or dissolution of LP Registrar can cancel registration if not renewed or where Registrar is satisfied LP is defunct	Winding Up – Voluntarily by members or creditors, compulsorily by the High Court Striking off	Winding Up – Voluntarily by members or creditors, compulsorily by the High Court Striking off

Source: ACRA Bizfile, <https://www.acra.gov.sg/>

Summary

Broadly, regulatory controls are measures imposed to protect consumers' interest. In the financial industry, these controls are applied to safeguard the money, investment, and insurance of the consumers. In view of this, it is expected that all professionals associated with the financial industry, including financial planners, will adopt such measures and adjust their business practices accordingly.

As an aspiring financial planner, you will have to try to familiarise yourself with the various rules and regulations that exist in the financial system as they will, in one way or another, govern the way you practise in the future.

Chapter 4: The Economic and Political Environment

4.1 Basic Economic Concepts	M1-4-4
4.2 Major Economic Indicators	M1-4-12
4.3 Factors Affecting Economic Activities	M1-4-13
4.4 Government Policies	M1-4-17

Introduction

Managing one's financial situation is a challenging task. Many factors can affect the financial situation of a person. Some are within our control. For example, if the price of a particular brand of product is too high, we can choose not to buy it. The problem is, not all factors in the financial environment are within our control. There are many external influences to reckon with. Exactly how they affect the financial circumstances of a person will depend on the types of influences and his needs and wants.

External influences can be divided up into different categories.

These are:

- Economic Changes in economic environment will have significant implications on a person's financial planning, such changes include changes in interest rates, changes in inflation, economic growth and so on.
- Political - governments often pass laws or pursue policies that can affect the way financial planners operate; for example, revising tax rates which may affect the net return on a client's investments. Political influences might also arise from the actions of pressure groups.
- Social - Over time, people change and develop different views, wants and needs. Social awareness of the need for recycling and environmentally friendly packaging are gaining ground as calls for a more sustainable environment get louder. Social trends also dictate fashion and lifestyle. Changing consumption patterns, increasing obesity, increasing interest in vegetarianism and so on can all affect different businesses in different ways.
- Technological - changes in technology can revolutionize the way financial planning services are offered to clients.

In this Chapter, we will examine the various external factors that exert major influences on the financial planning industry.

Learning Outcomes

1. Explain the mechanism of supply, demand, and market equilibrium;
2. Discuss the basic economic concepts and indicators;
3. Understand the various factors affecting the economy; and
4. Explain the impact of business cycles on financial decisions.

Chapter 4 – Economy, the Planned Economy, and the Mixed Economy.

An economic system is one that involves the production, distribution and consumption of goods and services between the different entities of a particular society. The economic system is composed of people and institutions, including their relationships with productive resources. In each economy, problems such as scarcity are addressed through systemic means, through allocation of finite productive resources.

In general, there are three major types of economic systems prevailing around the world: the Market Economy, the Planned Economy, and the Mixed Economy.

Market Economy

In a market economy, national and state governments play a minor role. Instead, consumers and their buying decisions drive the economy. In this type of economic system, the assumptions of the market play a major role in deciding the path of a country's economic development. Market economies work towards the reduction, or entire elimination, of subsidies for certain industries, the pre-determination of prices for different commodities, and the regulatory control of different industrial sectors. The absence of central planning is one of the major features of this economic system. Market decisions are mainly dominated by supply and demand. The role of the government in a market economy is simply to make sure that the market is stable enough to carry out its economic activities properly.

Planned Economy

A planned economy is also sometimes called a command economy. The most important aspect of this type of economy is that all major decisions related to production, distribution, commodity, and service prices are made by the government. The planned economy is government-directed, and market forces have very little say in it. This type of economy lacks the kind of flexibility that is present in a market economy, and because of this, it reacts slower to changes in consumer needs and fluctuations in supply and demand. On the other hand, a planned economy works towards using all available resources for expanding production instead of allotting the resources for advertising or marketing.

Mixed Economy

A mixed economy combines elements of both planned and market economies in one cohesive system. This means that certain features from both economic systems are taken to develop this type of economy. This system prevails in many countries. Neither the government nor business entities control the economic activities – both sectors play an important role in the economic decision-making of the country. In a mixed economy there is flexibility in some areas and government control in others. Mixed economies include both capitalist and socialist economic policies and often arise in societies that seek to balance differing political and economic views.

4.1 BASIC ECONOMIC CONCEPTS

Before we proceed to discuss the more pressing issues of the economic system, let's get familiar with some of the basic concepts of economics. The first and most important concept anyone should learn in economics is probably the demand and supply analysis.

Supply and demand analysis is based on the interaction between price and quantity. In a competitive market, price will function to equalize the quantity demanded by consumers and the quantity supplied by producers, resulting in an equilibrium combination of price and quantity. An increase in the quantity produced or supplied will typically result in a reduction in price and vice-versa.

The concepts of demand and supply are critical to making and implementing financial decisions. An understanding of these basic concepts will enable you to enhance your skills in drawing up a sound a retirement or investment plan for your client.

4.1.1 Demand

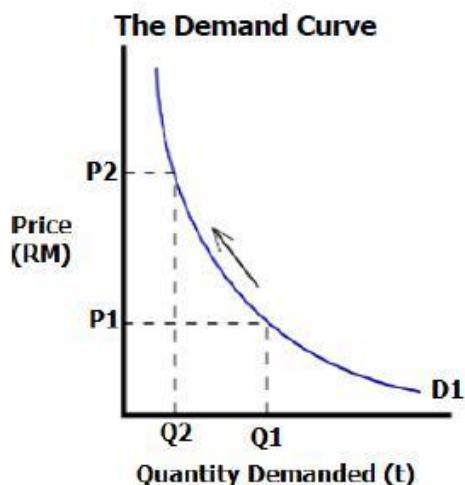
In economics, "demand" is a term that refers to the amount of goods that a consumer desires and can afford to buy over a range of prices.

The demand for a particular product encompasses the amount demanded over every price value, not just one of them. For example, the quantity demanded of a drink might be 200 bottles when it costs \$1.00, and 150 bottles at \$1.50. Both data pairs are part of the demand for the drink.

A good way to illustrate demand is by using a table, with the left column being the price and the right column being the quantity demanded. When you graph the demand for a product, the prices are always graphed on the y-axis and the quantity demanded on the x-axis.

Almost every graph of the demand for a product will have a line or curve that slopes downwards. That is, the lower the selling price, the more units will be demanded, and vice versa. In principle, this is easy to explain - the more a product costs, the less of it a person can afford to buy with the same income. This is the reason why the demand graph slopes downwards.

The Demand Curve



Movement along the demand curve reflects a change in the quantity demanded.

For example, when the price increases (from P₁ to P₂), the quantity of the product demanded will decrease (Q₁ to Q₂). This is called the law of demand and explains why demand curves normally slope downward and to the right. When the demand curve shifts, this is known as a change in the demand. Changes in demand can be caused by factors other than price.

Factors that affect the quantity demanded of a product include:

- The price of the product. Generally, the higher the product is priced, the lower the quantity demanded by consumers.
- Consumer income. The higher the consumer's income, the more goods the consumer will demand.
- The price and availability of related goods. If attractive substitute products are available at a lower price, less of a product will be in demand.
- Consumer expectations. If consumers expect a product price to rise, the more of the product they will demand before the price increase.
- Advertising. Effective advertising can promote and expand demand for the product of a company, or advertising can expand the marketplace for an entire industry.
- Demographics. As population demographics change over the years so do consumer tastes and the products that they consume.

Price Elasticity of demand

The price elasticity of demand refers to the responsiveness of the quantity of goods demanded in relation to changes in the price of the product. Demand is said to be elastic when a given change in price produces a greater percentage change in the quantity of the product that is demanded. Most products have elastic demand.

The elasticity of demand is determined by the availability of product substitutes and the percentage of the consumer's total budget spent on the product. Necessities, in general, tend to be more inelastic than luxury goods. Vacation travel represents a good example of a product with elastic demand.

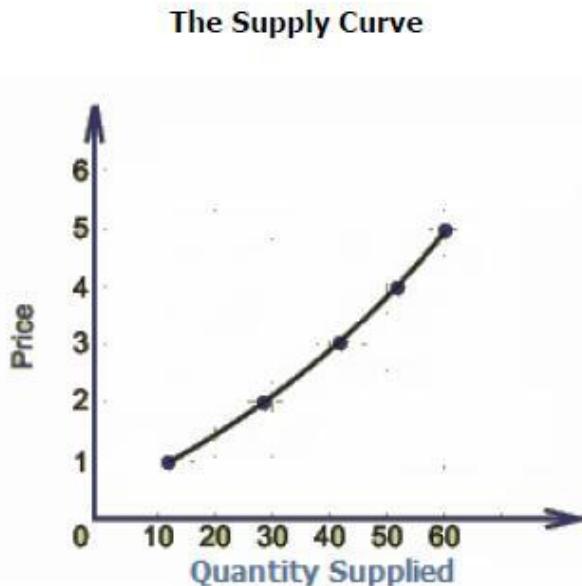
On the other hand, some products will be in demand no matter what their price; for example, insulin, which is a necessity for diabetics. If the price of insulin were to double, in all probability the quantity of insulin demanded would remain constant. This situation is known as inelastic demand.

4.1.2 Supply

The supply of a product is defined as the quantity of the product which producers or manufacturers are willing to produce and sell over a range of prices.

Supply curves normally slope upward and to the right. This relationship exists because companies will only produce more of a given product if the price at which they can sell the product covers the cost of production and yields a profit.

The Supply Curve



The law of supply says that, in the short run, producers will manufacture more of the product when prices are higher.

A change in the quantity supplied occurs when the price of the product itself changes, and this change is depicted as a movement along the existing supply curve.

A change in the supply is different from the change in the quantity supplied. A change in supply occurs because of factors other than price. Changes in supply are reflected by the upward or downward movement or shift, of the entire supply curve. For example, a major factor that affects the supply curve is production cost.

The factors which affect changes in supply and shift the supply curve include:

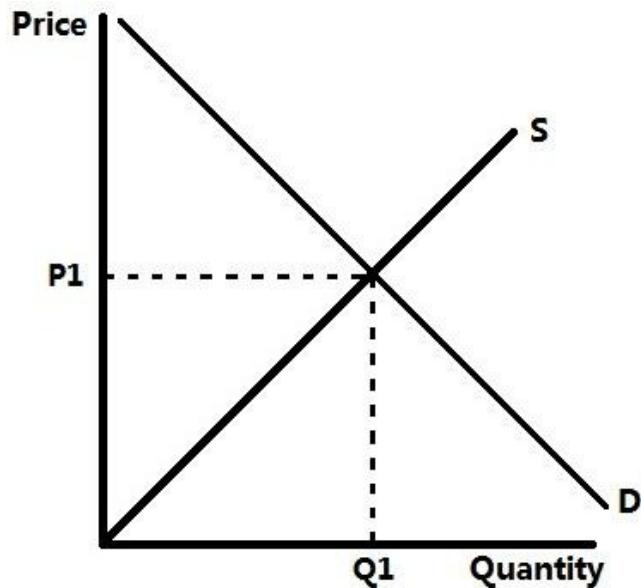
- A change in the price of the inputs of production such as raw materials, labour, or capital.
- Changes in production technology such as the use of additional or more efficient machinery or production methods.
- Changes in fiscal or monetary policy such as the imposition of taxes or other incentives or disincentives by governments.
- Natural disasters such as fires, floods, ice storms, or tornadoes which reduce the availability of goods on hand and may interrupt production schedules.

4.1.3 Market Equilibrium

Equilibrium is the point in a market at which supply, and demand intersect, thus giving the equilibrium price and quantity.

In the example below the equilibrium price is P1 and the equilibrium quantity is Q1. Were the price or the quantity supplied to change then the market would be in a state of disequilibrium. A price above P1 would mean there would be an excess of supply, and a price below P1 would mean there is excess demand.

Equilibrium



4.1.4 Economic Growth

Economic growth is the increase in the amount of the goods and services produced by an economy over time. In theory, “economic growth” typically refers to the growth of potential output, which is the production at “full employment”.

Economic growth is conventionally measured as the percentage increase in the real Gross Domestic Product, or the real GDP. Growth is usually calculated in real terms, or in other words, inflation-adjusted terms, to net out the effect of inflation on the price of the goods and services produced.

Singapore's GDP trend and Growth Rate.



Source: Department of Statistics, Singapore

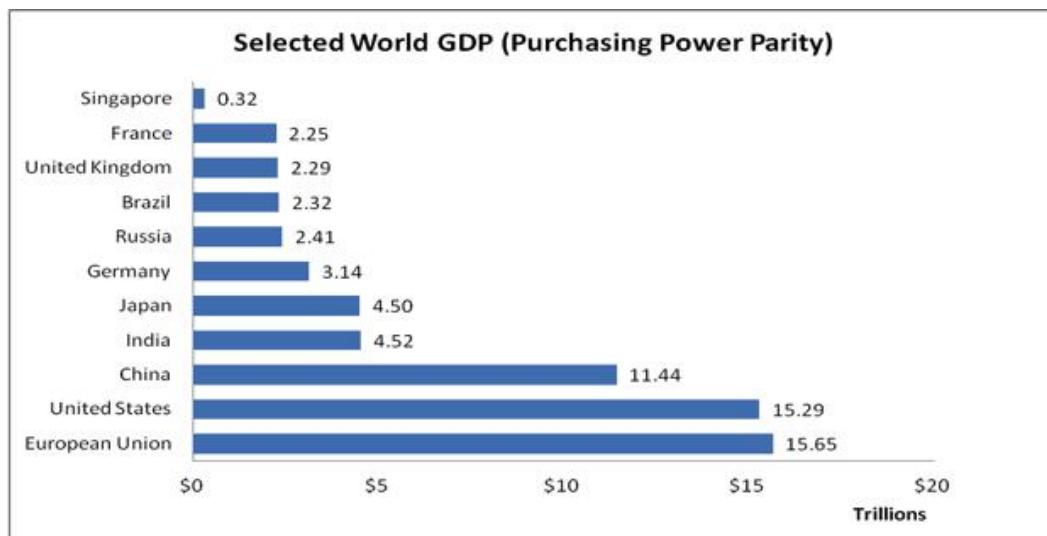
The growth in potential GDP is a function of:

- The growth rate of the labour force. This is determined by demographics (birth rate, death rate and immigration), and labour force participation rates (the percentage of the working-age population that chooses to work).
- The growth rate in the number of hours worked per worker. This is determined by societal attitudes towards work and leisure.
- The growth rate of productivity. Productivity growth rate is a function of the technology used, innovation, social attitudes, competition, resource utilization and the skills of the labour force.

GDP is the most common measure of national economic performance that is used by governments and economists worldwide.

The table below shows the latest GDP of selected countries.

Selected World GDP



Source: CIA World Factbook

We will now move on to find out the various factors affecting economic growth and how they will in turn affect the financial situation of individuals and how important they are to the financial planning industry. In the following part, we will look at three specific areas – business cycle, unemployment, and inflation.

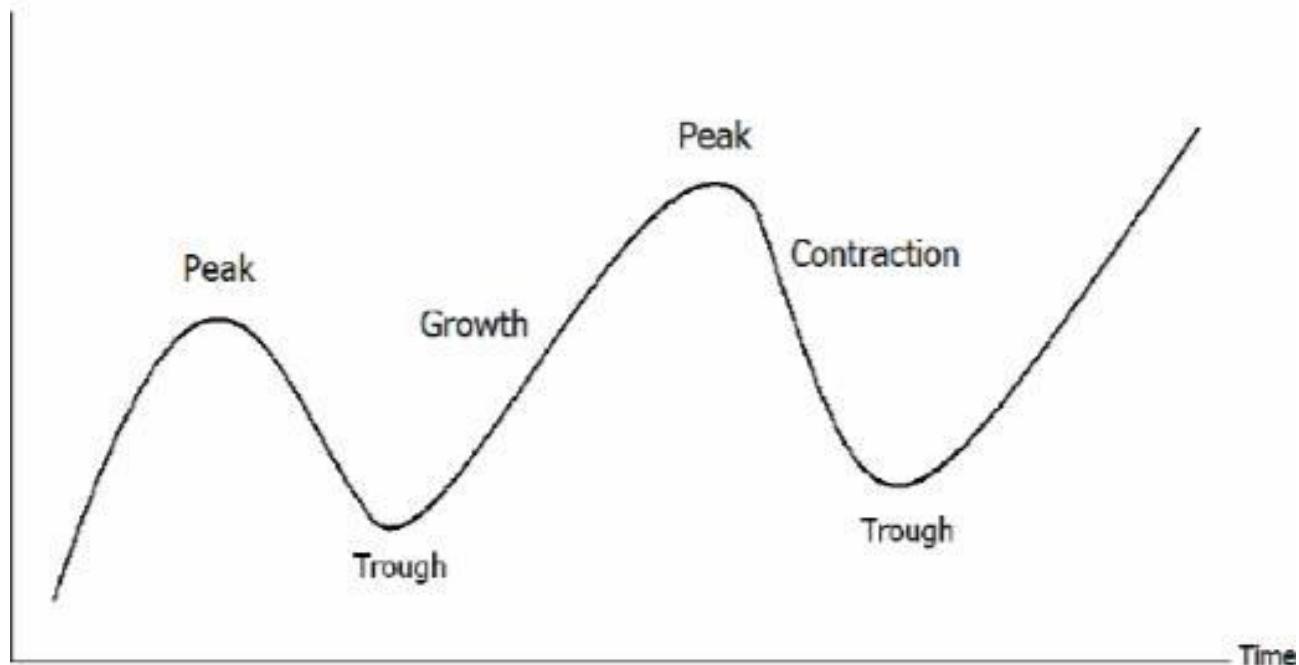
4.1.5 Business Cycle

The economy does not always grow at a constant rate. Over any given period, changes are bound to happen in the level of economic activity in any economy. In some years economic growth may be quite slow and in other years growth rates tend to be higher. This pattern of varying economic growth is called the Business Cycle.

The Business Cycle (or Economic Cycle) refers to the fluctuations of economic activity within its long-term growth trend.

The cycle involves shifts over time between periods of relatively rapid growth of output (recovery and boom), and periods of relative stagnation or decline (slowdown or recession). These fluctuations are often measured using the real GDP. Despite being named cycles, these fluctuations of growth and decline do not follow a purely mechanical or predictable periodic pattern. There may be periods where economic growth is quite strong. During this time, the number of people employed rises and the number of people unemployed falls. If there is more buying and selling going on than businesses need to employ more people to produce the goods and services.

The business cycle is often expressed as a diagram like the one below:



When looking at the diagram, we must remember that the shape of these cycles may not be anything like the regular shapes seen above. The important thing to remember is the terminologies commonly used: 'growth', 'contraction', 'recession' and 'peak'.

- Growth

A growth is the phase of the business cycle when the economy moves from a trough to a peak. It is a period when business activity surges and GDP expands until it reaches a zenith.

It is also known as an “economic expansion” and lasts on average about three to four years but has been known to last anywhere from twelve months to more than ten years.

- Contraction

This is the phase of the business cycle where the economy is in decline. More specifically, contraction occurs after the business cycle peaks and before it reaches a trough. According to most economists, a contraction occurs when a country's real GDP has been in decline for two or more consecutive quarters of the year. Therefore, the technical indicator of a recession is two consecutive quarters of negative economic growth, measured by a country's GDP.

A contraction (or recession) in the economy can be a source of economic hardship, because as economic growth plunges, people start losing their jobs and consumer spending will slow down.

- Trough

A trough is the phase where the economic activities reach the lowest point in a business cycle. It is normally visible in industrial production, employment, real income and the wholesale-retail trade. A trough is a normal, though unpleasant, part of the business cycle. Interest rates usually fall in recessionary times as cheap borrowing rates are instrumental in stimulating the economy.

- Peak

This is the phase where the economy turns downward from expansion to contraction. Strong economic growth does not last forever. When business activity slows down, economic growth also slows down. The economy may grow, but at a slower rate. For example, a 1% growth rate, compared to say, 2.5%, is still growth, albeit lower.

4.1.6 Unemployment

The level unemployment can change depending on the level of economic activity. If economic activity falls, we might expect to see the level of unemployment rising as a result.

Unemployment not only depends on economic activity but also on the levels of skills and qualifications that people have and how easy it is for them to move from job to job (occupational mobility) and to different parts of the country to find work (geographical mobility).

From the financial planning point of view, unemployment can affect both individuals as well as the economy.

Effects on Individuals

- They may find that they have lower incomes which affect their standard of living.
- They may find it difficult to keep up with the skills required to find new jobs.
- They may suffer from family and personal problems.
- They may lose their self-esteem and self-respect.
- Lower levels of income are also associated with a greater likelihood of ill-health.

Effects on the Economy

- There is an opportunity cost to unemployment - all the output that people could have produced if they were employed.
- The government receives less tax revenue from unemployed people, and this can affect the amount of money for public services like health and education.
- Unemployed people must be supported whilst they find work. The cost to the government in having to pay out benefits can be very high. Again, this takes money away from other public services.
- The government might have to spend more to deal with problems caused by unemployment such as increased crime, family breakdowns, and ill health.

4.1.7 Inflation

Inflation is a rise in the general prices of goods and services over a period.

In any economy, prices rise and fall all the time. From food to shopping, insurance, education, entertainment to commodities, every component of economic activity can be affected.

The Consumer Price Index (CPI) gives us an idea of what is happening to price changes throughout the economy. The CPI is used to measure the rate of inflation. An inflation figure of 2.0% means that prices on average have risen by 2.0% compared to the same period a year before.

In Singapore, the CPI is designed to measure broad changes in retail prices experienced by Singaporean households in general. It should not be taken as a reflection of the standard experience of any given household.

Understanding inflation is essential to the basics of personal finance. It impacts our every-day lives and is one of the biggest obstacles investors face. Inflation slowly erodes the value of a person's wealth. If the average yearly inflation is 3.0%, it means that with every one year that passes, the value of the person's wealth will be worth 3.0% less.

For example, an investment which used to return an average yield of 7.0% annually will now only yield about 4.0% after accounting for the rate of inflation. For those who are employed and on a fixed income, their spending power as well as savings will be reduced.

Your client's real rate of return, after taking into consideration the average yearly inflation of 3.0%, is therefore 3.88%, and it is derived as follows:

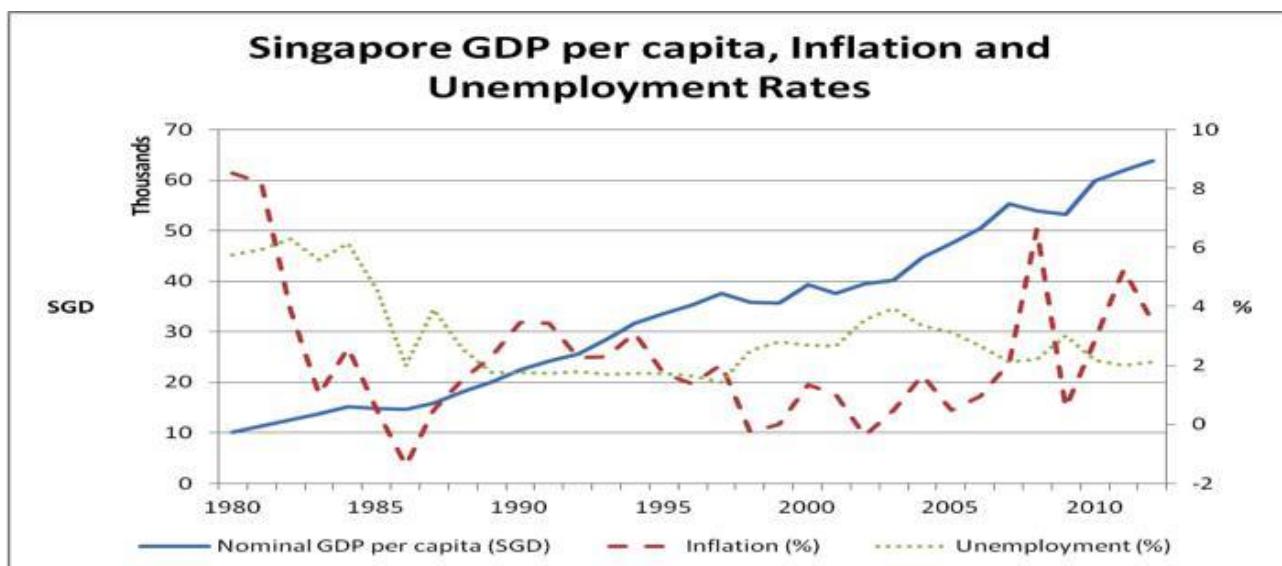
Real Rate of Return

$$\frac{(1 + \text{Average yearly investment return})}{(1 + \text{Average yearly inflation})} - 1$$

$$\frac{1 + 0.07}{1 + 0.03} - 1 = 0.0388 \text{ or } 3.88\%$$

The chart below shows the trend of Singapore's GDP, unemployment rate and inflation since

1980. Singapore's GDP Growth, Unemployment Rate and Inflation



Source: IMF

4.2 MAJOR ECONOMIC INDICATORS

A wide range of regularly published economic statistics provides indications of the status of various segments of the economy or of its overall wellbeing. These statistics are known as economic indicators, and they are particularly useful for monitoring business cycles and the other macroeconomic variables we have discussed thus far. Where economic indicators point to the current state of the economy, they are known as coincident indicators.

However, not all published economic indicators refer to the current state of the economy. Some may be more indicative of events long past, that is, of events which preceded the indicator. These are known as lagging indicators. Likewise, some indicators have been found to consistently precede economic activity by a period of several months. These are known as leading economic indicators and are arguably the most valuable.

In Singapore, the Department of Statistics under the Ministry of Trade and Industry and the Monetary Authority of Singapore are the main providers of economic indicators.

Below are some selected economic indicators and their significance.

Name	Significance
Consumer Price Index	A major indicator of price inflation; often signals higher interest rates and/or lower exchange rate
Gross Domestic Product	A major indicator of the performance of the economy
Balance of payments - Trade balances - Service flows - Transfer Flows - Current account balance - Capital flows	An indicator of export competitiveness and the level of internal demand. The size of the current account (deficit) balance influences the exchange rate value and the level of interest rates
(Un)employment	An indicator for job conditions in the country
Producer price index	An indicator of the average change over time in selling prices received by domestic producers of goods and services. PPIs measure price change from the perspective of the seller
Production index	An indicator of the output of various industrial sectors
Private investment indicators	An indicator of the amount of investment in the private sector
Construction indicators	An indicator of construction of residential properties
Business conditions indicators	An indicator that gives advance information that permits inferences to be drawn regarding emerging economic trends
Consumer sentiments indicators	An indicator that gauges consumer spending trends and sentiments. Consumer behaviour reflects income level and general economic conditions
Private consumption indicators	An early indicator of past consumer spending
House price indicators	An early indicator of price changes of residential properties
Population and vital population statistics	An indicator of population and mortality rate
Life expectancy at birth	An indicator of life expectancy in the country

4.3 FACTORS AFFECTING ECONOMIC ACTIVITIES

Among others, the levels of economic activities can be influenced by the following factors:

- Changes in Interest Rates
- Changes in Exchange Rates
- Changes in Demand
- Changes in Tax Rates

4.3.1 Changes in Interest Rates

Essentially an interest rate is the cost of money. It is the price you pay to borrow money and the reward you receive when you lend it to someone else.

Interest Rates and the Economy

The major relationship between interest rates and the economy is through their role as a moderator of inflation. Many countries use official interest rates to keep the prices of goods and services within a targeted band. This practice, known as inflation targeting, helps to keep the economy stable.

In most other countries, to keep inflation within a certain range, the central monetary agency will utilize a tool known as monetary policy and it works by raising official interest rates when the economy is expanding too quickly and reducing rates when growth is too slow.

Interest Rates and the Stock Market

The interaction between interest rates and the stock market is not always immediate. In most cases, higher interest rates are a sign that the monetary authorities are trying to slow the economy, which may not bode well for the future performance of the stock market. However, sometimes the notion that interest rates may be on the rise is a positive sign for the stock market. Investors take this as a signal that the central bank authorities view the economy to be strengthening.

In recent years, we have seen how record low interest rates have acted as a catalyst for stock market growth and how ‘cheap’ money fuelled higher levels of investment and phenomena like the private equity boom.

Interest rates also play a crucial role at the individual share price level. That’s because interest rates influence the value analysts attach to a company’s shares.

A key factor in determining a company’s share price is its prospects for future earnings. Simply put, analysts try to predict those earnings by discounting expected future cash flows with a nominated interest rate. The higher the interest rate, the lower the future projected cash flows will be and, therefore, the lower the current share price. The underlying logic is that when interest rates are higher, it is more costly for companies to meet their debts and to run their business.

Interest Rates and the Exchange Rate

The relationship between interest rates and exchange rates looks complex but is essentially quite simple. For example, when interest rates are higher in Australia than in Japan, investors can borrow in Japanese Yen to invest in the Australian dollar. More money coming into Australia leads to higher demand for its Dollar – and therefore pushes up its value. This kind of currency trade is known as the “carry trade”.

How the interest rate and the exchange rate in a country are linked depends on that country’s monetary policy regime. The exchange rate and the interest rate in any economy are related by the ‘uncovered interest rate parity’ which is based on the principle of no arbitrage. Many central banks, like those in the United States, use interest rates as their monetary policy tool. Others, like the MAS, choose exchange rates as their monetary policy tool.

There are two things that can affect the interest rate in Singapore: interest rates in foreign countries and the expected (not realized) appreciation or depreciation of the exchange rate of the Singapore Dollar.

The mechanism for the adjustment of the domestic interest rate due to a difference between the domestic and foreign interest rate is as follows: If the interest rate were higher in Singapore than in the US, the principle of no arbitrage would lead investors to borrow in US dollars, invest in Singapore Dollar assets and thus lower the interest rate here.

Suppose the Singapore dollar is expected to appreciate. The principle of no arbitrage will again come into play in adjusting the interest rate: An investor will be able to make money by borrowing in US dollars, converting US dollars to Singapore dollars, and lending in Singapore even at the same interest rate as the money would have earned in the United States, and then later converting the funds back to US dollars when the Singapore Dollar has actually strengthened as expected. This entire process would lead to an increase in funds that can be loaned out in Singapore - and this would put a downward pressure on the interest rate here. In this way, the expectation of the Singapore Dollar appreciating would cause the interest rate here to fall. Seen in another light, higher interest rates often reflect market expectation that the currency is expected to devalue.

Interest Rates and the Bond Market

A bond is a debt security. By investing in a bond, the investor lends money to the bond issuer – whether it is a company or the government. In return, the investor receives interest in the form of a regular coupon payment. The principal will then be redeemed by the issuer at the end of the loan term. Movements in interest rates are one of the biggest influences on bond prices.

Typically, when interest rates rise, bond prices fall and vice versa. This is because the real value of the coupon rate alters relative to the current interest rate.

If a 10-year bond has a 5% coupon rate and the interest rate happens to rise to 6%, then the bond will worth less as its return is now less than that presently offered by the market. If the investor keeps the bond until maturity, then this relationship matters little; he will get back the initial capital he invested. However, if he is trading in the bond market through regular buying and selling, movements in interest rates are critical to his investment.

4.3.2 Changes in Exchange Rates

The exchange rate is the price of one currency expressed in terms of another. If a Singaporean goes abroad to a country that uses a different currency from the Singapore Dollar, he will have to buy the currency of that country.

For example, if he travels to England, then he will need to buy the British Pound for spending at his destination. The rate of exchange is the amount of British Pound he will get in exchange for the Singapore Dollar.

Businesses of all shapes and sizes trade around the world. In international trade, companies do either or both of the following two things:

- they sell goods and services abroad for which they will receive payment (exports), or

- they buy goods and services from abroad; in which case they will have to pay for those goods and services (imports).

If a Singaporean businessman is involved in exporting goods and services, he will want to be paid in Singapore Dollars. His foreign buyers will therefore have to change their currency into Singapore Dollars to make the payment.

If he is importing goods and services from abroad, his foreign counterparts will expect to be paid in their currency. The Singaporean businessman, therefore, has to change Singapore Dollars into that foreign currency. International trade has to be conducted with the ever-present concerns of ever-fluctuating exchange rates.

The demand and supply of currencies on the foreign exchange markets (generated by the businesses, banks and individuals involved in the buying and selling of different currencies) is constantly changing. As a result, the exchange rate changes minute by minute, hour by hour, day by day.

For businesses trading abroad or investing in foreign currency assets, this poses significant challenges.

- Firstly, it is difficult to plan for the business or investment if they are not sure what the exchange rate will be at any point of time.
- Secondly, changes in exchange rates affect:
 - (i) the demand for both imports and exports because they change the apparent prices of both imports and exports, and
 - (ii) the value of the foreign currency investment.

If the exchange rate of the Singapore Dollar rises, it would mean that a Singaporean trader or investor would get more foreign currency for every Singapore Dollar exchanged. For the importer this would mean that he would have to give less Singapore Dollar in exchange for an equivalent amount of foreign currency and so the price of his goods would be reduced.

4.3.3 Changes in Aggregate Demand

The economy revolves around all the production and exchange activities that are carried out every day, i.e., all the buying and selling. The level of economic activity is measured by how much buying and selling goes on in the economy over a period, which is mainly driven by demand.

Demand can change for a variety of reasons: changes in income levels, how people view the future, what their current debt levels are, the general level of confidence in the future of the economy, political events around the world, natural disasters, and so on. Many things affect demand, and it is very difficult for a person or any business, whatever its size, to predict what might happen next.

It is important to remember that not everyone or every business will be affected by changes in economic activity in the same way.

Supermarkets, for example, tend to be relatively unaffected whereas furniture retailers, car dealers and electrical goods retailers tend to be far more affected by economic changes.

We can, however, establish some general principles:

- When GDP slows down, businesses will experience a fall in demand for their goods or services. Revenues will fall and profit margins will be squeezed as prices are cut in efforts to increase sales. Unemployment may start to creep up.
- When GDP rises at a faster rate, businesses will sell more goods and services. They will need to increase stock levels, which will in turn put pressure on prices. Prices will start to creep up. Unemployment will fall as businesses now employ new staff to help them cope with the increased demand.

4.3.4 Changes in Tax Rates

The general population is subject to several different taxes. Not only do people have to ensure that they administer and pay these taxes, but when tax changes occur, they can affect their financial situations in different ways.

In general, high tax rates would discourage income, output, and the efficient use of resources. Tax rates are crucial because they affect the incentive to earn. Tax rates impact on how much of one's additional income must be turned over to the tax collector as well as how much is retained by the individual. As tax rates increase, people get to keep less of what they earn.

An increase in tax rates adversely affects the output of an economy in two ways:

- Higher rates reduce the pay-off people derive from work and from other taxable productive activities. When marginal tax rates rise, some people may opt out of the labour force. Others may take more vacation time, retire earlier, or forgo overtime opportunities. Still others may decide to give up promising but risky business ventures. In some cases, high tax rates may even drive highly productive citizens to countries where taxes are lower. These adjustments and other actions may shrink the effective supply of resources and lead to a shrink in productivity.
- High tax rates encourage tax-shelter investments and other forms of tax avoidance, leading to inefficiency.

4.4 GOVERNMENT POLICIES

The role of the government in a mixed economy such as Singapore's is constantly shifting. It is often ad hoc and uncoordinated, stemming as much from political issues as from economic fundamentals. Sometimes your clients will want explanations for any effects that proposed or new government economic policies may have on their personal situation. The financial planner needs to be cognizant of these effects at a personal or micro level. The well-researched planner is in the best position to address such issues. Often, the government will provide 'real world' examples through various publications to help the public understand the impacts of government policy on families and individuals.

However, the government will generally endeavour to manage the economy by providing a favourable setting for positive economic growth, low unemployment and low inflation. Externally, the government will try to enhance the nation's trading position by monitoring its exchange rates in the face of competition from the rest of the world's currencies.

The Singaporean Government, to achieve its overall economic objectives, has at its disposal, various economic policies – monetary, fiscal, exchange rate and national development.

4.4.1 Monetary Policy

The monetary policy of a government is based on its desire to influence either the demand for, or supply of, money and hence the level of interest. The change from implementation of monetary policy will trigger events that affect economic factors such as short-term and long-term interest rates, exchange rates, amount of money and credit available in the country and the level of employment, output, and prices.

In case the economy is doing very well, the disposable income and level of employment would be high and demand for goods and services would increase. This would result in increase in price of goods and services, as businesses would find it difficult to increase supply of goods or services to meet the demand. The increase in price of goods and services will cause inflation to rise. Since one of the major considerations for governments is to control inflation at a reasonable level, the government would decide to decrease the money supply.

The money supply can be changed through any of the following methods:

- i) Open-market operations
- ii) Discount rate
- iii) Reserve deposits by financial institutions

Open market operations

Open market operations mean that the government would buy or sell the government securities in the financial market. If the government is interested in increasing the money supply, it would purchase government securities, releasing more money in the market. On the other hand, if the aim is to reduce the money supply, it would sell more securities and receive the money from investors, who are mainly financial institutions such as commercial banks. When commercial banks purchase government securities, the amount of funds available with the commercial banks will decrease which in turn would decrease the amount of funds available for lending, thus reducing its supply.

Discount Rate

Discount rate is the interest on loans made by the Central bank to depository institutions such as the commercial banks. If the discount rate increases, it would cost more for commercial banks to get funds from Central Bank whereas a decrease in discount rate would reduce the cost of commercial bank to obtain funds.

The discount rate is the basic interest rate in the economy decided by the Central Bank and changes in discount rate would be used for adjusting the money supply. The Central bank would decrease the discount rate if the purpose is to stimulate the economy through increase in money supply. If the purpose is to cool down the economy and reduce inflation, the Central Bank would increase the discount rate which would, in turn, decrease the money supply.

Reserve Deposits by Depository Institutions

Central Banks institute a reserve ratio that should be maintained by depository institutions such as commercial banks. The reserve ratio specifies the minimum percentage of deposits in the bank to be kept as cash. If the total deposit is \$100 million and the reserve ratio is 10%, then the bank must keep \$10 million as cash. This means that the bank can, at most, lend up to \$90 million.

The Central Bank can use changes in the reserve ratio as a tool for monetary policy. If the Central Bank wants to follow a contraction-based monetary policy by decreasing money supply, it will increase the reserve ratio. For example, if reserve ratio is increased from 10% to 20%, the bank can lend only up to \$80 million instead of \$90 million when the reserve ratio was at 10%. The reduced funds available for lending will reduce the money supply. In case the Central Bank wants to increase the money supply, it can decrease the reserve ratio. When reserve ratio is reduced, the amount of cash that can be lent by the bank increases which would increase the money supply. Central Bank can choose either or a combination of these three strategies to influence the interest rate.

Interest rates

The contraction of the monetary supply can be achieved indirectly by increasing the nominal interest rates. Monetary authorities in different nations have differing levels of control over economy-wide interest rates.

In the United States, the Federal Reserve sets the discount rate to achieve the desired Federal funds rate by open market operations.

This rate has significant effects on other market interest rates, but there is no perfect relationship. In the United States open market operations are a relatively small part of the total volume in the bond market.

The government cannot set independent targets for both the monetary base and the interest rate because they are both modified by a single tool — open market operations; the government must choose which one to control.

The monetary authority may be able to mandate specific interest rates on loans, savings accounts, or other financial assets. By raising the interest rate(s) under its control, a monetary authority can contract the money supply, because higher interest rates encourage savings and discourage borrowing. Both effects reduce the size of the money supply.

For financial planners, it is important to know that monetary policy rests on the relationship between the rates of interest in an economy, that is the price at which money can be borrowed, and the total supply of money.

Monetary policy uses a variety of tools to control money supply or interest rates, to influence outcomes like economic growth, inflation, currency exchange rates and unemployment. Where the issuance of currency is under a monopoly, or where there is a regulated system of issuing currency through banks which are tied to a central bank, the monetary authority has the power to alter the money supply and thus influence the interest rate (to achieve policy goals).

4.4.2 Fiscal Policy

Fiscal policy is used by governments to influence the level of aggregate demand in the economy, to achieve the objectives of price stability, full employment, and economic growth.

Fiscal policy can be contrasted with monetary policy, which attempts to stabilize the economy by controlling interest rates and the supply of money.

The two main instruments of fiscal policy are: government spending and taxation. Fiscal policy refers to the overall effect of budget outcome on economic activity. The three possible stances of fiscal policy are: neutral, expansionary, and contractionary:

Neutral stance

A neutral stance of fiscal policy implies a balanced budget where Government spending (G) = Tax revenue (T). Government spending is fully funded by tax revenue and overall, the budget outcome has a neutral effect on the level of economic activity.

Expansionary Stance

An expansionary stance of fiscal policy involves a net increase in government spending ($G > T$) through rises in government spending or a fall in taxation revenue or a combination of the two. This will lead to a larger budget deficit or a smaller budget surplus than the government previously had, or a deficit if the government previously had a balanced budget. Expansionary fiscal policy is usually associated with a budget deficit.

Contractionary Stance

A contractionary fiscal policy ($G < T$) occurs when net government spending is reduced either through higher taxation revenue or reduced government spending or a combination of the two. This would lead to a lower budget deficit or a larger surplus than the government previously had, or a surplus if the government previously had a balanced budget. Contractionary fiscal policy is usually associated with a surplus.

4.4.3 Exchange Rate Policy

The exchange rate policy is the way in which a country manages its currency in respect to foreign currencies and the foreign exchange market. It is closely related to monetary policy and the two are generally dependent on many of the same factors.

The basic types are a floating exchange rate, a pegged float and the fixed exchange

rate. Floating Exchange Rate

A floating exchange rate or a flexible exchange rate is a type of exchange rate regime wherein a currency's value is allowed to fluctuate according to the foreign exchange market. A currency that uses a floating exchange rate is known as a floating currency.

Floating rates are the most common exchange rates today. For example, the dollar, euro, yen, and British pound all float. However, since central banks frequently intervene to avoid excessive appreciation/depreciation, these regimes are often called managed float or a dirty float.

Pegged Float

In a pegged float, the currency is pegged to some band or value, either fixed or periodically adjusted.

Types of pegged floats are:

- Crawling bands: the rate is allowed to fluctuate in a band around a central value, which is adjusted periodically. This is done at a pre-announced rate or in a controlled manner following economic indicators.
- Crawling pegs: Here, the rate itself is fixed, and adjusted as above.
- Pegged with horizontal bands: The currency is allowed to fluctuate in a fixed band (bigger than 1%) around a central rate.

For Malaysia, the BNM, in July 2005, announced the end of the Ringgit peg to the US dollar immediately after China's announcement of the end of the Renminbi peg to the U.S. dollar. As a result, Malaysia now allows the Ringgit to operate in a managed float against several major currencies. This has resulted in the value of the Ringgit rising closer to its perceived market value, although BNM has intervened in financial markets to maintain stability in the trading level of the Ringgit.

The MAS manages the Singapore Dollar (S\$) exchange rate against a trade-weighted basket of currencies of Singapore's major trading partners and competitors. The composition of this basket is reviewed and revised periodically to consider changes in Singapore's trade patterns. This trade-weighted exchange rate is maintained broadly within an undisclosed target band and is allowed to appreciate or depreciate depending on factors such as the level of world inflation and domestic price pressures. MAS may also intervene in the foreign exchange market to prevent excessive fluctuations in the S\$ exchange rate.

Fixed Exchange Rate

Fixed rates are those that have direct convertibility towards another currency. In the case of a separate currency, also known as a currency board arrangement, the domestic currency is backed one to one by foreign reserves. A pegged currency with very small bands (< 1%) and countries that have adopted another country's currency and abandoned its own also fall under this category.

Exchange Control Policy

Exchange control policies are various forms of controls imposed by a government on the purchase or sale of foreign currencies by residents or on the purchase or sale of local currency by non-residents.

There are currently no exchange controls in Singapore, but this is not so for Malaysia. The present exchange control regime in Malaysia applies uniformly to transactions with all countries, except a few countries for which special restrictive rules apply.

Summary

Strategy development and its translation into recommendations occur against a background of economic, legislative, and other circumstances. These circumstances or factors impinge on financial planning in a variety of ways. It is therefore necessary for the planner to have a meticulous understanding of the external factors affecting his clients.

In this topic, we have considered the various economic systems and the factors affecting their growth. The influences of economic activities were discussed, and we looked at the roles of the government in shaping these activities. Government policies that have major impact on the economy were also examined.

Chapter 5: Basic Financial Management

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Introduction

For today's financial planners, running a professional practice is not getting easier. They have to deal with clients who are no longer comfortable with the "business as usual" planning approach, after experiencing the financial uncertainties of the past several years and are now grappling with the current economic situation.

To some extent, this is good news for planners, as it gives them the opportunity to provide their clients with more in-depth planning. Clients themselves are also more receptive to adopting a more proactive approach to investing and planning. With frequently changing goals and increasingly unstable means to achieve those goals, many clients are now more open to the planner's active and constant involvement in monitoring their investments. This means the planner is empowered to suggest timely revisions and not have to stick to annual or bi-annual planning sessions.

Each individual client deserves a unique planning process. Clients vary greatly in their assets, planning goals, and willingness to take risks, and none of these areas are absolutes - all of them may change over time.

That makes basic analysis a moving target, and almost impossible to define in concrete terms. This is where analytical tools become useful. As a rule, analytical tools fall into several very broad categories, although even a specialized application might be considered a basic tool.

In this Chapter, we will look at the basic financial analysis tools and applications that are available for financial planning.

The areas we will be addressing are:

Personal Financial Statements and Ratio Analysis

Budgeting

Credit and debt management

Risk tolerance in financial decisions

Behavioural Finance

Learning Outcomes

1. Prepare and interpret personal financial statements and discuss the financial ratios;
2. Explain the information required in the budgeting process;
3. Understand the importance of credit and debt management;
4. Discuss issues on risk tolerance of clients;
5. Explain the applications of behavioural finance

Chapter 5 – Basic Financial Management

5.1 PERSONAL FINANCIAL STATEMENTS AND RATIO ANALYSIS

Personal Financial Statements describe the financial position and profitability of a person, the same way Corporate Financial Statements do for companies. Personal Financial Statements are much simpler compared to the corporate counterpart. The reason is that corporate entities use the actuarial basis of accounting, which is more accurate, but also more tedious and complicated because it considers the timing of cash flows. Most Personal Financial Statements proceed based on cash accounting, where timing is not considered. Where an accrual basis is desired, it can implement on an ad-hoc basis and a balancing entry be made in the Statement of Cash Flows.

5.1.1 The Balance Sheet

The Statement of Net Worth is also known as the Balance Sheet. The Balance Sheet provides a snapshot overview of the overall financial position of a person at a particular fixed point in time, normally 31 December of a year.

A balance sheet has three parts, which summarises the financial picture of an individual or a family:

- Assets: What you own
- Liabilities, or debts: What you owe
- Net worth: The difference between your assets and liabilities

The accounting relationship among these three categories is called the balance sheet equation and is expressed as follows:

$$\text{Net Worth} = \text{Total Assets} - \text{Total Liabilities}$$

Let's look at the components of each section of the balance sheet.

Assets

Assets are economic resources. Anything tangible or intangible that is capable of being owned or controlled to produce value is considered an asset. Simply put, assets represent value of ownership that can be converted into cash, although cash itself is also considered an asset.

- **Cash and Cash Equivalents**

Cash and Cash Equivalents is the most liquid asset with low, if not the lowest, risk. It includes currency, deposit accounts, and negotiable instruments (e.g., money orders, cheque, bank drafts). Depending on the financial planner, some would classify Life Insurance Cash Value under this account category too.

- **Invested Assets**

Invested Assets are assets whose purpose is to earn a return, often with an element of non-negligible risk. Examples include stocks, unit trusts, properties, and CPF balances in the Ordinary Account, the Special Accounts and Medisave Accounts.

- **Personal Use Assets**

These are assets that have a monetary value if the owner wishes to dispose of them and are kept for personal use and not for investment purposes. Home residences would fall under this category. Other examples include jewellery, cars, stamp collections.

Liabilities

A liability is a present obligation arising from past events, the settlement of which is expected to result in a cash outflow. Liabilities are often categories according to the maturity dates.

- **Current Liabilities**

Current Liabilities are short-term liabilities that are due within one year from the date of the Statement of Net Worth. Income tax liabilities and credit card outstanding balances fall into this category.

- **Long Term Liabilities**

Long Term Liabilities is the residual category that represents non-current financial obligations. Examples include mortgages, renovation loans and car loans.

Balance Sheet Preparation

As a financial planner, you will need to prepare the personal balance sheet for your client at least once every year. Here is how to prepare a balance sheet:

1. List all the assets at their fair market value as of the date you are preparing the balance sheet. For cash and investment assets, you can easily find the fair market value on the bank accounts and investment accounts. Estimate the values of homes and cars using published sources of information. Certain items may appreciate or increase in value, while other items may depreciate or decrease in value, over time.
2. List all current and long-term liabilities. Show all outstanding charges as current liabilities on the balance sheet, including those bills which are yet to receive.
3. Calculate the net worth. Subtract the total liabilities from the total assets. The result is the net worth, which reflects the equity a person has in his/her total assets.

Following the above steps, calculating your client's net worth is easy. It requires only some basic financial information regarding the things he owns and the debts he owes.

1. Start by referring to the client's data collection form.
2. List the client's largest assets. For most clients, this would include their home and possibly vehicles. Obtain a good estimate of the current market value of these assets.
3. Next, gather the latest statements for his more liquid assets. Include current and savings accounts, cash, certificates of deposit or other investments such as unit trusts, and CPF accounts.
4. Finally, consider listing personal items that may be of value. This could include jewellery, coin collections, musical instruments, etc. Small value items worth less than say, \$100, may be ignored.
5. Now, take all of the assets that have been listed in the first three steps and add them together. This number represents the client's total assets.
6. It is now time to look at liabilities. Again, start with major outstanding liabilities such as the balance on a housing loan or car loans and list those.
7. Next, list all of your client's personal liabilities such as credit cards, overdraft facilities, or any other debt he may owe.
8. Total up all his liabilities.
9. Finally, subtract the total liabilities from the total assets and you will have your client's net worth. It may be big, small, or even negative, but that does not matter at this point. This is just a starting point to have something to compare against in the future.

It is wise to be conservative with estimates, especially with home and vehicle values. Inflating the value of large assets may look good on paper but will not paint an accurate picture of the client's net worth.

Below is an example of net worth statement.

	\$	\$
ASSETS:		
Cash		
- Cash in Savings Accounts	8,000	
- Cash in Current Accounts	3,500	
- Fixed Deposits	50,000	
- Cash in Hand	2,000	
- Money Owed (rents deposits etc.)	<u>600</u>	64,100
Investments		
- Cash Value of Life Insurance	25,000	
- Savings Bonds (current value)	30,000	
- Shares/Bonds	150,000	
- Unit Trusts	100,000	
- Vested Value of Shares Options	15,000	
- Other Investments	10,000	
- CPF	<u>210,000</u>	540,000
Real Estates		
- Market Value of Your Home	400,000	
- Market Value of Other Real Estate	<u>0</u>	400,000
Personal Assets		
- Market Value of Cars/Trucks	80,000	
- Market Value of Boats, Planes, Others	0	
- Jewellery	30,000	
- Collectibles	20,000	
- Others	<u>0</u>	130,000
TOTAL ASSETS		<u>1,134,100</u>
LIABILITIES:		
Housing loan	180,000	
Car Loans	65,000	
Bank Loans	30,000	
Other Loans	0	
Credit Card Balances	25,000	
Income Taxes Owed	6,000	
Other Debts	<u>1,200</u>	
TOTAL LIABILITIES		<u>307,200</u>
NET WORTH (Total Assets – Total Liabilities)		<u>826,900</u>

5.1.2 Statement of Cash Flows

The Cash Flow Statement captures the financial transactions that occur over the period in question, which is usually from 1 January to 31 December of a year. The Cash Flow Statement allows you to evaluate the amount of saving and investing during the period it covers. It is dynamic, allowing you to review your client's financial route from time to time.

Like the balance sheet, the cash flow statement has three major parts: Inflows (Income), Outflows (Expenses) and Cash Surpluses (or deficit). A cash surplus (or deficit) is merely the difference between income and expenses. The statement is prepared on a cash basis, which means that only transactions involving actual cash inflows or outlays are recorded.

Inflows (Income)

Inflows are transactions that represent a receipt of money by the person. Examples include ordinary wages and additional wages for employed persons, and net income for professionals.

Outflows (Expenses)

Outflows are transactions that represent a payment of money by the person. This can be subdivided into fixed outflows and variable outflows. Fixed outflows represent commitments by the person and would include mortgage repayments (whether fixed or floating rates), investment and savings amount and insurance premiums. Variable outflows include items like food, transport, clothing, amounts given to parents, vacation, club membership, internet expenses etc.

Cash Surplus (or Deficit)

Subtracting total expenses from total income gives you the cash surplus (or deficit) for the period. Immediately, you can see how one did financially over the period. A positive figure indicates that expenses were less than income, resulting in a cash surplus. A value of zero indicates that expenses were exactly equal to income for the period, while a negative value means that the expenses exceeded income and there is a cash deficit.

A cash surplus can be used for saving or investment purpose, to acquire assets, or to reduce debt. Adding to saving or investment should increase the future income and net worth and making payments on debt affects cash flow favourably by reducing future expenses. In contrast, when a cash deficit occurs, one must cover the shortfall from one's saving or investments, reduce assets, or borrow. All of these activities will reduce net worth and negatively affect one's financial status.

Below is an example of (annual) cash flow statement.

	\$
SOURCES OF CASH:	
Wages/Salary	205,000
Interest	2,000
Dividends/Unit Trust Fund Distributions	0
Others	0
Total Sources of Cash	207,000
USES OF CASH:	
Payroll Deductions	
-Income Tax	33,000
-Voluntary	7,103
-CPF	24,000
Total Payroll Deductions	57,000
Fixed Expenses	
-Housing Loan Repayment	31,600
-Car Loan Payments	18,000
-Credit card payments	23,500
-Other Loan Payments	4,000
-Utilities	6,000
-Insurance	3,000
-Investment Plans	4,000
Total Fixed Expenses	90,100
Variable Expenses	
-Charitable Contributions	10,500
-Clothing	4,500
-Education	7,000
-Food	16,000
-Gas & Petrol	6,200
-Gifts	2,000
-Travel/Vacation	4,500
Total Variable Expenses	50,700
TOTAL EXPENSES	197,800
Yearly Cash Flow	9,200

5.1.3 Financial Ratio Analysis

Financial Ratios are analysis tools that help a financial planner diagnose problems with the Personal Financial Statements. The ratios can be roughly classified into liquidity ratios, safety ratios and investment and asset allocation ratios. The seven ratios listed below are the most common ones used, but they are by no means exhaustive.

Liquidity Ratio

The Basic Liquidity Ratio measures the ability of the person to meet monthly expenses and emergency cash requirements.

Ratio	Formula	Recommendation
Basic Liquidity Ratio	$\frac{\text{Cash and Cash Equivalents}}{\text{Monthly Expenses}}$	Min 3 months Max 6 months

Safety Ratios

The Solvency Ratio measures long-term financial solvency, the higher the ratio, the better the financial position.

The Debt to Asset Ratio measures the indebtedness of the person, and it is also a measure of the financial leverage. The higher the ratio, the greater the potential for solvency issues. The Solvency Ratio and Debt to Asset Ratios should add up to 100%.

The Debt Service Ratio measures the proportion of take-home income used to make regular debt repayments. This ratio should not be higher than 35. The take home income used is usually nett of CPF contributions.

Ratios	Formula	Recommendation
Solvency Ratio	$\frac{\text{Total Net Worth}}{\text{Total Assets}}$	At least 35%
Debt to Asset Ratio	$\frac{\text{Total Liabilities}}{\text{Total Assets}}$	Below 50%
Debt Service Ratio	$\frac{\text{Total Annual Debt Repayments}}{\text{Annual Take Home Income}}$	Below 35%

Investment and Asset Allocation Ratios

The Liquid Assets to Net Worth ratio measures the proportion of net worth that the individual has in cash and cash equivalents. A minimum of 15% is sufficient, but too high a ratio may represent the inefficient allocation of capital resources.

The Net Investment Assets to Net Worth ratio measures the proportion of net worth that the individual has parked in investment assets. A ratio of less than 50% is cause for concern, again on the inefficient allocation of capital resources. For the purposes of calculating this ratio, equity in residential home should not be included.

The Savings ratio measures the proportion of gross income that is used for savings. A minimum hurdle rate of 10% is considered good, anything less is an issue that should be discussed with the client.

Ratios	Formula	Recommendation
Liquid Assets to Net Worth Ratio	$\frac{\text{Cash and Cash Equivalents}}{\text{Net Worth}}$	At least 15%
Net Investment Assets to Net Worth Ratio	$\frac{\text{Total Invested Assets}}{\text{Net Worth}}$	At least 50%
Savings Ratio	$\frac{\text{Savings}}{\text{Gross Income}}$	At least 10%

Example: Credit-worthiness evaluation

To evaluate the creditworthiness of a client, we can use the 'debt to income ratio'. Most lenders would consider a 36% or lower debt to income ratio good. It's difficult to apply a one-size-fits-all formula to everybody. Your client's personal situation, such as number of dependants, unusual expenses, and spending habits will affect how much debt he can reasonably handle. But, as a general guideline, let's assume that anything over 36% would be uncomfortable for the average person.

Using the example of financial statements earlier, the debt-to-income ratio can be computed as follows:

DEBT TO INCOME RATIO CALCULATION	\$	%
MONTHLY DEBT PAYMENTS		
Monthly housing loan payment or rent	2,633	
Monthly credit or loan payment	333	
Monthly car payments	1,500	
Monthly credit card payments	1,958	
Other monthly loan amounts	0	
TOTAL MONTHLY DEBT PAYMENTS	6,424	
 MONTHLY INCOME		
Monthly net (take-home) pay ($\$205,000 - \$57,000$)/12	12,333	
Other annual income, divided by 12	167	
TOTAL MONTHLY INCOME	12,500	
 DEBT TO INCOME RATIO		
Total Monthly Debt Payments Divided by Total Monthly Income		51.4

Having a debt-to-income ratio of 51.4%, this client is not likely to secure further credit as he already has a very high level of debts to be serviced.

5.2 BUDGETING

A budget is a short-term financial planning report that helps a person to achieve his/her short-term financial goals. By taking the time to evaluate your client's current financial situation, spending patterns, and goals, you can help your client to develop a realistic budget that is consistent with his/her lifestyle, family situation, and values. A cash budget is a valuable money management tool that helps to:

1. Maintain the necessary information to monitor and control one's finances
2. Decide how to allocate the income to reach one's financial goals
3. Implement a system of disciplined spending
4. Reduce needless spending so one can increase the funds allocated to saving and investments
5. Achieve long-term financial goals

Like the income and expenses statement, a budget should be prepared on a cash basis, thus it includes all the estimated cash receipts and cash expenses, as well as savings and investments that are expected to occur in the coming year.

The cash budget preparation process takes three stages: estimating income, estimating expenses, and finalizing the cash budget.

Estimating Income

The first step in preparing the cash budget is to estimate the income for the coming year. Include all income expected for the year: the take-home pay of both spouses, expected bonuses or commissions, pension or annuity income, and investment income--interest, dividend, rental, and asset sale income.

Unlike the cash flow statements, in the cash budget you should use take-home pay (rather than gross income). The cash budget focuses on those areas that one can control, and the take-home pay represents the amount of disposable income one receives from various sources.

Estimating Expenses

The second step in the cash budgeting process is by far the most difficult: preparing a schedule of estimated expenses for the coming year. This is usually done using actual expenses from previous years, along with predetermined short-term financial goals. Take note of the expenses associated with medical disabilities, divorce and child support, and similar special circumstances.

In case there is no historical expenses data, you could re-examine old check book registers and credit card statements to approximate expenses or take a "needs approach" and attach dollar values to projected expenses.

Base estimated expenses on current price levels and then increase them by a percentage that reflects the anticipated rate of inflation. For example, if you estimate the current monthly grocery bill is \$500 and the expected inflation is 3% next year, you should budget your monthly grocery expenditure next year to be \$515.

Finalizing the Cash Budget

After estimating income and expenses, finalize your budget by comparing projected income to projected expenses. Show the difference in the third section as a surplus or deficit. In a balanced budget, the total income for the year equals or exceeds total expenses. If you find that there is a deficit at year end, you will have to go back and adjust the expenses. If there are several months of large surpluses, they will cover any shortfall in a later month. Budget preparation is complete once all monthly deficits are resolved and the total annual budget balances.

Preparing Budgets using Excel

The process doing up a budget is as follows:

1. Gather every financial statement you can from the client. This includes bank statements, investment accounts, recent utility bills and any information regarding a source of income or expense. The key to this process is to create a monthly average so the more information your client can provide the better.
2. Record all your client's sources of income. If he is self-employed or has any external sources of income be sure to record these as well. If his income is in the form of regular payments where taxes are automatically deducted, then use the net income or take-home pay as the basis. Record the total income as a monthly amount.
3. Create a list of his monthly expenses. Write down all the expected expenses your client must incur over the course of a month. This includes housing loan payments, car loan payments, insurance, groceries, utilities, entertainment, dry cleaning, retirement, or education savings and essentially everything he spends money on.
4. Break expenses down into two categories: fixed and variable. Fixed expenses are those that stay relatively the same each month and are required for his way of living. They include expenses for essentials like his housing loan or rent, car payments, cable and/or internet service, trash pick-up, credit card payments and so on. These expenses, for the most part, not likely to change in the budget.
5. Variable expenses are the type that will change from month to month and include items such as groceries, fuel, entertainment, eating out and gifts, to name a few. This category will be important when adjusting.
6. Total the monthly income and monthly expenses. If the result shows more income than expenses, your client is off to a good start. This means he can prioritize this excess to areas of his budget such as retirement savings or clearing his credit card debt faster. If it shows a higher expense column than income, it means some adjustments will have to be made.
7. Adjust expenses. If you have accurately identified and listed all your client's expenses, the goal would be to have his income and expense columns show an equal balance. This means all his income is accounted and budgeted for.

- If your client is in a situation where expenses are higher than income you should look at his variable expenses to find areas which you can recommend cutting. Since these expenses are typically essential it should be easy to shave a few dollars here and there to bring your client closer to the desired budget.
- Review your client's budget. It is important to get your client to review his budget on a regular basis to make sure he is staying on track.

Excel spreadsheets simplify the work of creating a budget in organizing planned income and expenses. There are many good spreadsheets to choose from.

Spreadsheet templates are worksheets that simplify creating a budget spreadsheet with rows, columns and formulas already formatted for you. You can edit the formatting and formulas in templates if you wish.

Example of a Personal Budget in spreadsheet

Personal Monthly Budget

PROJECTED MONTHLY INCOME		Income 1		\$2,500	PROJECTED BALANCE (Projected income minus expenses)		\$940
		Extra income		\$500			
		Total monthly income		\$3,000			
ACTUAL MONTHLY INCOME		Income 1		\$2,500	ACTUAL BALANCE (Actual income minus expenses)		\$960
		Extra income		\$500	DIFFERENCE (Actual minus projected)		\$20
HOUSING		Projected Cost	Actual Cost	Difference	ENTERTAINMENT		Difference
Mortgage or rent		\$1,500	\$1,400	\$100	Video/DVD	\$0	\$50
Phone		\$60	\$100	-\$40	CDs		\$0
Electricity		\$50	\$60	-\$10	Movies		\$0
Gas		\$200	\$180	\$20	Concerts		\$0
Water and sewer					Sporting events		\$0
Cable					Live theater		\$0
Waste removal					Other		\$0
Maintenance or repairs					Other		\$0
Supplies					Other		\$0
Other					Total	\$0	\$50
Total		\$1,810	\$1,740	\$70			-\$50
TRANSPORTATION		Projected Cost	Actual Cost	Difference	LOANS		Difference
Vehicle payment		\$250	\$250	\$0	Personal		\$0
Bus/taxi fare					Student		\$0
Insurance					Credit card		\$0
Licensing					Credit card		\$0
Fuel					Credit card		\$0
Maintenance					Other		\$0
Other					Total	\$0	\$0
Total		\$250	\$250	\$0			

This spreadsheet is a model of a monthly budget providing a comparison for monthly actual and projected expenditures. Such a budget can be used to determine whether the client has been overspending.

5.3 CREDIT AND DEBT MANAGEMENT

Credit comes in many shapes and forms. The skills to correctly evaluate credit plans are vital for proper personal financial management. Generally, the older generations avoid taking on too many loans, an idea encapsulated in the exhortation to “live within your means”. On the other hand, the younger generations have grown up in a modern society where the use of credit from cars to housing to education is commonplace or even expected. Perhaps the epitome of the credit culture is the introduction of the 50-year housing loan in mid-2012, a development that few of the older generation can comprehend but is appreciated by the younger generation as it allows them to afford their dream homes with more manageable monthly debt.

Ask any successful business owner and most will tell you that cash flow and credit management are crucial to the business. It is nearly impossible to grow a business without proper credit management. The amount of credit a firm uses can be traced through the Liability section of the firm’s financial statement, and the same can be said for an individual.

When it comes to the individual, however, the acceptance of the use of credit is not as universal. People hold varying degrees of aversion to credit. While it is generally wise to live within your means, it is even wiser to get a keen understanding of what credit is, and a deep understand on why businesses regard it as being vital to success. Once you appreciate that credit is a double-edged sword, you will be able to make better utilization of your existing resources to reach your financial goals.

There are many aspects to credit management, and here in this section we would focus on the computational aspects of two widely available forms of instalment credit – the car loan, and the housing loan.

5.3.1 Car Loan

Financing the procurement of a car is an example of a “hire-purchase” arrangement. In return for the use of the car, you agree to allow the financial institution to own the car until you have fulfilled your repayment obligations.

The more common repayment schedule is one that is computed on a flat rate basis. Under the flat rate basis, you pay a constant interest amount throughout the entire loan period. The advantage is that you are protected against interest rate fluctuations.

Example:

You took out an 8-year loan of \$85,000 at a flat rate of 2% per annum. What is the monthly instalment amount?

$$\text{Total interest Payable} = 8 \times 2\% \times \$85,000 = \$13,600.$$

$$\text{Term of Loan} = 96 \text{ months}$$

$$\text{Monthly Instalment} = (85,000 + 13,600) / 96 = \$1,027.08$$

The disadvantage of the flat rate basis is that the borrower pays equal monthly instalments throughout the life of the loan, meaning that every instalment repaid, even though part of the principal sum being paid off, the borrower continues to pay interest on money already repaid.

The headline interest rate often gives the uninitiated a misleading impression that the interest charged is low.

As a financial planner, you are expected to be able to convey the actual interest rate, or better known as the effective interest rate (EIR), charged on the loan. The EIR is a better reflection of the true cost of the loan, and as a very rough rule of thumb, the EIR is approximately twice the flat rate.

Example:

You took out an 8-year loan of \$85,000 at a flat rate of 2% per annum. What is the effective interest rate?

The Effective Interest Rate is 3.838%.

If the loan is for 4 years instead of 8 years, all else unchanged, what are the monthly repayments and the effective interest rate?

The monthly repayments would be \$1912.50.

The Effective Interest Rate would be 3.891%

5.3.2 Housing Loan Amortization

Amortization is a method for repaying a housing loan in equal instalments. Part of each payment goes toward interest due for the period and the remainder is used to reduce the principal (the loan balance). As the balance of the loan is gradually reduced, a progressively larger portion of each payment goes toward reducing the principal.

For example, in the amortization table below, to pay off a \$100,000, 10-year, 8%, fixed-rate housing loan, a person must pay \$1,213.28 each month for 120 months (with a small adjustment at the end to account for rounding). \$666.67 of the first payment goes toward interest and \$546.61 is used to reduce the principal. But by the 120th payment, only \$8.03 is needed for interest and \$1,205.05 (with small adjustment of -0.74) is used to reduce the principal.

Amortization Table

Amortization Table - Housing Loan					
Month	Principal	Instalment	Interest	Principal	Balance
1	100,000.00	1,213.28	666.67	546.61	99,453.39
2	99,453.39	1,213.28	663.02	550.26	98,903.13
3	98,903.13	1,213.28	659.35	553.93	98,349.20
4	98,349.20	1,213.28	655.66	557.62	97,791.58
5	97,791.58	1,213.28	651.94	561.34	97,230.25

Amortization Table - Housing Loan

Month	Principal	Instalment	Interest	Principal	Balance
Rows 6-115 omitted					
116	5,946.22	1,213.28	39.64	1,173.64	4,772.58
117	4,772.58	1,213.28	31.82	1,181.46	3,591.12
118	3,591.12	1,213.28	23.94	1,189.34	2,401.78
119	2,401.78	1,213.28	16.01	1,197.27	1,204.51
120	1,204.51	1,213.28	8.03	1,205.25	-0.74

You can also use an Excel spreadsheet to create amortization tables and charts for comparing different loans. For example, the following Home Mortgage Calculator allows you to generate the exact home loan amortization schedule.

Example of a Housing Loan schedule

A	B	C	D	E	F	G	H	I	J	
1 Loan Amortization Schedule										
3	4	5	6	7	8	9	10	11	12	
		Enter values								
		Loan amount	\$ 1,980,000.00							
		Annual interest rate	1.20 %							
		Loan period in years	26							
		Number of payments per year	12							
		Start date of loan	26/06/12							
		Optional extra payments								
12	13	Lender name:	Bank of Merlion City							
13										
16	Pmt. No.	Payment Date	Beginning Balance	Scheduled Payment	Extra Payment	Total Payment	Principal	Interest	Ending Balance	Cumulative Interest
18	1	28/07/12	\$ 1,980,000.00	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,410.70	\$ 1,980.00	\$ 1,974,589.30	\$ 1,980.00
19	2	28/08/12	\$ 1,974,589.30	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,416.11	\$ 1,974.59	\$ 1,969,173.19	\$ 3,954.59
20	3	28/09/12	\$ 1,969,173.19	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,421.52	\$ 1,969.17	\$ 1,963,751.67	\$ 5,923.76
21	4	28/10/12	\$ 1,963,751.67	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,426.95	\$ 1,963.75	\$ 1,958,324.72	\$ 7,887.51
22	5	28/11/12	\$ 1,958,324.72	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,432.37	\$ 1,958.32	\$ 1,952,892.35	\$ 9,848.84
23	6	28/12/12	\$ 1,952,892.35	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,437.81	\$ 1,952.89	\$ 1,947,454.55	\$ 11,798.73
24	7	28/01/13	\$ 1,947,454.55	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,443.24	\$ 1,947.45	\$ 1,942,011.30	\$ 13,746.19
25	8	28/02/13	\$ 1,942,011.30	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,448.69	\$ 1,942.01	\$ 1,936,562.62	\$ 15,688.20
26	9	28/03/13	\$ 1,936,562.62	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,454.13	\$ 1,936.56	\$ 1,931,108.48	\$ 17,624.76
27	10	28/04/13	\$ 1,931,108.48	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,459.59	\$ 1,931.11	\$ 1,925,648.89	\$ 19,559.87
28	11	28/05/13	\$ 1,925,648.89	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,465.05	\$ 1,925.65	\$ 1,920,183.84	\$ 21,481.52
29	12	28/06/13	\$ 1,920,183.84	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,470.51	\$ 1,920.18	\$ 1,914,713.33	\$ 23,401.70
30	13	28/07/13	\$ 1,914,713.33	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,475.98	\$ 1,914.71	\$ 1,909,237.35	\$ 25,316.41
31	14	28/08/13	\$ 1,909,237.35	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,481.46	\$ 1,909.24	\$ 1,903,735.89	\$ 27,225.65
32	15	28/09/13	\$ 1,903,735.89	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,486.94	\$ 1,903.76	\$ 1,898,268.95	\$ 29,129.41
33	16	28/10/13	\$ 1,898,268.95	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,492.43	\$ 1,898.27	\$ 1,892,776.52	\$ 31,027.68
34	17	28/11/13	\$ 1,892,776.52	\$ 7,390.70	\$ -	\$ 7,390.70	\$ 5,497.92	\$ 1,892.78	\$ 1,887,278.60	\$ 32,920.45

Instead of two different balances on a single graph, comparisons can be made on different loans by making modifications within a spreadsheet and watching the chart as it tabulates the changes. This can be done with many online calculators as well. However, one very important thing about comparing charts dynamically like this is that the scale of the X and Y axes need to remain the same while the loan amount, interest rate, etc. are changed.

5.4 RISK TOLERANCE IN FINANCIAL DECISIONS

Risk tolerance affects how psychologically receptive an individual is to decisions involving risk. Decision-making involves choosing between alternative courses of action. There is risk in any course of action where the outcome is not certain. Depending on the situation, the possible outcomes (for the alternative courses of action), may be all favourable (a ‘greater good’ choice), all unfavourable (a ‘lesser evil’ choice), or a mix of favourable and unfavourable.

Broadly speaking, risk tolerance can be seen as the sum of all the ‘fear/greed’ trade-offs available, including trade-offs between making the most of opportunities and securing financial wellbeing, between regret avoidance over ‘losses’ incurred from taking too much risk, and over ‘gains’ missed through not taking enough risk, and so on.

Therefore, risk tolerance is best defined as the extent to which a person chooses to risk experiencing a less favourable outcome in the pursuit of a more favourable outcome.

It is important to recognize that risk tolerance represents a trade-off in the continuum from minimizing unfavourable outcomes to maximizing favourable outcomes, not just an upper limit on unfavourable outcomes. Risk tolerance is simply a question of where everyone is psychologically comfortable in setting the balance point.

In financial planning, risk tolerance normally refers to the degree that a person is willing to risk losing some of his original investment in exchange for a chance to earn a higher rate of return. The risk-return trade-off requires a person to accept more risk in exchange for a potentially higher return. If he has a low risk tolerance, he is considered a conservative investor. If he has a high-risk tolerance, he is considered an aggressive investor.

In fact, most investors have a moderate risk tolerance, which means their willingness to accept risk lies between that of a conservative and aggressive investor. Typically, younger investors generally have a higher risk tolerance since they have more time to recover from occasional losses. As a person gets older, his risk tolerance diminishes. By the time he is into late retirement, his risk tolerance is almost always low.

Risk tolerance should not be conflated with risk taking ability. A person may be very risk averse yet able to take on risk. For example, low risk tolerance of a wealthy person might induce him/her to get full comprehensive insurance coverage on a vehicle. On the other hand, many gamblers are very risk loving even though they do not have risk taking ability. The Financial Planner has a role here to help align a client’s risk tolerance with his/her risk-taking ability.

5.4.1 The Nature of Risk Tolerance

Like many human attributes, an individual’s risk tolerance is thought to be a product of nature (in essence, what is genetically driven) and nurture (what has been experienced).

In psychology, it is classed as a psychological trait, for example, a relatively enduring way one individual differs from another.

Risk tolerance is stable, but it is not set in concrete. Life events, good and bad, may have an impact and there is a general tendency for it to decrease with age.

Relationships with demographic factors have been extensively studied and some patterns are emerging. In the most authoritative study to date, risk tolerance was found to be:

- positively correlated with education, income and wealth (as this increase, so does risk tolerance but only slightly) and
- negatively correlated with age (as age increases risk tolerance decreases, and at an accelerating rate) and number of dependants (but again only slightly.)

Furthermore, there was quite a large gender difference, with males on average more risk-tolerant than females by comparatively about the same as the difference between male and female heights. Finally, marriage decreased risk tolerance marginally.

However, the correlations were all weak or very weak. They didn't take exceptions into consideration. For example, while 60-year-olds are, on average, less risk-tolerant than 30-year-olds, there might be one or two 60-year olds who may be more risk-tolerant than a 30-year old.

5.4.2 Risk Tolerance and Human Behaviour

Risk tolerance will affect human behaviour, but it is only one of several factors that collectively determine what an individual would do in a particular situation. Other factors include the perceived level of risk, the person's goals, and the perceived alternatives and so on.

All other things being equal, most of us prefer to take paths where the risk is consistent with our risk tolerance. But, for example, should we be running late when it is imperative that we arrive at our destination on time, we may be prepared to go faster than usual.

However, unexpected dangers can lurk around the corner, which was what happened during the recent stock market downturn. Lulled into a false sense of security by the smooth travelling of the early 2000s, the bumps came as a very nasty surprise to many. If investors panic, as some did, it could be akin to jumping out of a moving car.

It is of utmost importance that you understand both your client's risk and risk tolerance before dispensing any investment advice.

Your client's risk tolerance may not be static (although authorities argue about this).

Personal and external factors may influence his risk tolerance at any given time or over a period. Thus, you might expect changes in your client's feelings about risk when there are increases or decreases in his family obligations, major shifts in the economy, or other circumstances. It is wise that you be prepared to modify his investment plan should such changes occur.

5.4.3 Measuring Risk Tolerance

There are tests that measure risk tolerance to assess how an investor reacts to different types of risks. These tests are not fool proof, of course, since we are talking about psychological behaviours that can vary under different conditions.

However, these tests are designed to give you a general sense of how much investment risk your clients can accept, and the results are generally considered reliable.

5.5 BEHAVIOURAL FINANCE

Behavioural finance is a field of research conceived by cognitive psychologists Daniel Kahneman and Amos Tversky in the late 1960s. Their focus of research was on theories dealing with cognitive behaviour and development of heuristics, that is, problem-solving approach that makes people act in an unanticipated irrational manner. Their major research led to the development of prospect theory and loss aversion.

Richard Thaler, an economist, decided to use economics and finance with psychology to augment the research of Kahneman and Tversky, and the field of behavioural finance was formed.

5.5.1 Conventional Finance versus Behavioural Finance

Conventional finance is based on rational and logical theories, namely, capital asset pricing model (CAPM) and the efficient market hypothesis (EMH). The major assumption in these theories is that investors are risk averse, rational, and will always behave in a predictable manner.

Though these theories can predict and explain economic events and stock market behaviour, there were a number of anomalies which could not be explained through these theories. These theories were able to explain idealised events but could not explain in the event where market participants did not behave in a rational and predictable manner.

Conventional finance theories assume that all investors are rational and interested in maximising wealth. In portfolio selection, it is assumed that emotions or other extraneous factors do not have any impact on the portfolio selected. However, behavioural finance assumes that investors often behave irrationally which causes anomalies in the stock price behaviour. The irrationality and illogical behaviours can be explained through cognitive psychology.

Anomalies under conventional finance

There are several anomalies recorded in the stock price behaviour that cannot be explained by conventional finance theories. Some of the anomalies are:

- i) **January Effect:** Typically, returns from stocks in the month of January are significantly higher as compared to other months. Researchers using conventional finance to explain this phenomenon using tax loss selling hypothesis. According to this hypothesis, investors would like to take losses by selling shares which can offset capital gains in the month of December and then start buying stocks back in the month of January, which would push up the prices. Though this hypothesis may be good in countries where capital gains are taxed differently, this phenomenon is seen in other countries where there is no capital gains tax. Thus, conventional finance is unable to explain this phenomenon.

- ii) **Small firm effect:** Studies have found that investing in a portfolio of small companies generally provides positive abnormal gains as compared to investing in large firms which would result in negative abnormal gains. There isn't any effective explanation offered to explain this phenomenon. One of the arguments offered is based on wrong estimation of the risk of small firms and large firms which do not explain this phenomenon completely.
- iii) **Winner's curse:** Winner's curse refers to a situation where the winning bid in an auction generally exceeds the intrinsic value of the asset. In conventional finance, it is assumed that the price of the asset should always be equal to its intrinsic value, because all market participants have access to all available information. Hence, they would arrive at the same intrinsic value. However, behavioural finance suggests that the winner will typically bid aggressively to discourage others from bidding, which can result in an increased in the chance of paying a price higher than the intrinsic value.
- iv) **Equity Premium Puzzle:** According to conventional finance, risk-return relationship is linear. In other words, an asset with higher risk should provide higher rates of return and the risk premium should be related to the increased risk associated. However, it has been found that the average return on stocks exceeded the government bond returns by about six to seven percent over a 70-year period. Researchers believe that an equity premium of six to seven percent is too large and the equity premium should be much lower. But conventional finance is not able to explain this phenomenon.

Behavioural finance researchers believe that they could explain such a high premium. According to behavioural finance researchers, investors are more averse to making loss or exhibit loss aversion rather than risk aversion. Loss aversion implies that investors, when offered a choice of making a gain of S\$100 or a loss of 4,100 with equal probability, will always choose such that they do not make loss even though there are chances of making gains. This loss aversion behaviour makes the investors to look more at short-term volatility rather than long-term performance. Investors are likely to react unfavourably to downside changes. Since investors are faced with loss aversion, stocks must yield a higher premium to induce investors to invest in stocks as compared to safer government bonds.

5.5.2 Theories in Behavioural Finance

Many theories are suggested by behavioural finance researchers as to why individuals may behave irrationally. We discuss some of the major theories below:

Anchoring

In general, ideas and opinions are based on relevant factors that are considered valid for decision making. However, often individuals have the tendency to attach or anchor their thoughts to a reference point, even though this may have no logical relevance towards the decision.

For example, investors may base their decisions on statistics and figures which may not be relevant for decision making. Investors may sometimes believe that they may invest in shares of companies that had fallen considerably in a very short period. In this case, they are anchoring on a high that stock has achieved and believe that the price will increase towards that high again which causes the investors to purchase the stock at a lower price.

In this case, investors believe that stock price fell due to short-term volatility. However, it is quite likely that the fundamentals of the company might have worsened which might have caused the value of shares to go down. Instead of concentrating on the fundamentals of the company, investors based their decisions on their anchor of recent high price.

Mental Accounting

Many investors separate their money into many different accounts based on their subjective criteria for keeping each account. Each asset group may have different functions which can have an irrational effect on their consumption-investment choice. Because of this, they will not touch some of the accounts or asset group even though reinvesting in other asset group may provide additional benefit.

This behaviour, known as mental accounting, is also seen in their investment behaviour. Investors may separate their investment into a safe or fixed income investment and speculative or stock investment. The purpose of this demarcation is that any downside in speculative investment will be offset by positive returns from safe investment. A point to be taken , this demarcation will not provide additional benefits especially when it is preferable to shift from safe to speculative investment or from speculative to safe investment, depending on the market expectations and movements.

Confirmation Bias

Very often, investors have some preconceived opinion and when they are given some new information, they tend to selectively filter their information so that they pay more attention to the information that supports their opinion. . This is known as confirmation bias. For example, an investor may get some information on a company that is not verified. He/she has been told by some sources that it is a good company. When the investor evaluates this information, he/she considers the information only from the opinion that this company is a good company. He/she is likely to look at only the positive things about the company and ignore the red flags such as low demand for the products or low profitability.

Hindsight Bias

Hindsight bias occurs in situations where the investor believes in the fact that a certain past event that had taken place was predictable and obvious even though the situation was not predictable in a recent manner beforehand. Examples of hindsight bias include the technology bubble of the early 2000s and the Asian Financial Crisis in 1997.

The two biases, namely, confirmation bias and hindsight bias, would lead investors to be overconfident and they would believe that they have superior stock picking ability and are likely to make mistakes in the future.

Gambler's fallacy

Gambler's fallacy refers to making incorrect assumptions and predictions about the events that are likely to happen. Investors would wrongly believe that the probability of an event occurring is less likely after some event occurred. For example, an individual would believe that the probability of head falling when a coin is tossed is very low if the past six tosses all resulted in heads. At the same time, some other individuals may believe that the probability of a head falling when a coin is tossed is very high if the past six tosses all resulted in tails. However, the probability of head coming up is 50% irrespective of what happened in the previous tosses.

In case of investors, some investor may believe that the price of a stock is likely to increase if the price had fallen consistently over several days prior to that day. At the same time, some other investors may believe that the price of a stock is likely to decrease further if the price had fallen considerably over several days prior to that day. However, studies showed that stock price follows a random walk with past events, having no effect on the current stock price change.

Herd Behaviour

The tendency for individuals to copy the actions of a larger group, whether it is rational, or irrational is known as the herd behaviour. Two explanations are provided to justify the herd behaviour. First, many individuals are likely to conform to social norms and if many members of a certain group follow a particular path, others will also follow the same path. Second, if many members of a certain group follow a path, then all of them cannot be wrong and hence it is better to follow the same path.

Several examples of herd behaviour can be seen in the market. During the dot com boom, investors flocked to these companies even when the fundamentals of many of these companies were not sound. Because of the herd behaviour the prices of all dot com companies soared, causing a dot com boom. Later when some of these companies went bust, investors started getting out of dot com companies, including those companies that had sound fundamentals. The herd behaviour of investors in selling shares of all the dot com companies resulted in a steep fall in the market. Typically, when the market is going down, the herd behaviour causes the market to crash.

Overconfidence

Overconfidence means that an individual overestimates or exaggerates his/her ability to be successful in any task. In investing, overconfident investors tend to believe that they have superior stock-picking ability and hence will be able to earn above normal returns. In fact, it results only in higher portfolio turnover and the returns to overconfident investors are generally lower.

Overreaction

According to efficient market hypothesis, any new information shall be reflected in the price of the shares. However, participants in the market tend to overreact to new information which creates larger than appropriate effect on the price of the share. The increase and decrease of this price is not permanent and is found to erode over time. A study found that portfolio consisting of stocks which had the best performing stocks consistently provided a return lower than the market index, while a portfolio consisting of stocks which had the worst performing stocks consistently beat the market index. This indicates that past winners could become losers and vice versa. This finding also suggests that the overreaction of investors pushes up the prices of best performing stocks and pushes down the prices of worst performing stocks. When the prices reverse later, winners turn out to be losers, and losers turn out to be winners.

5.5.3 Criticisms of Behavioural Finance

Even though several researchers are concentrating on developing more insight into behaviour of individuals and how their behaviour affects their investment habits, conventional finance researchers have criticised the use of behavioural finance. Their major points of criticism are summarised below:

- Conventional finance is based on the rationality of individuals, and the conventional finance researchers argue that experimentally observed behaviour will have limited or no application to market situations as traders will learn over time leading ultimately to rational behaviour.
- The techniques used by behavioural finance researchers are based on experiments or through survey-based techniques. These techniques face the risk of systemic biases, strategic behaviour, and lack of incentive compatibility.

Summary

Preparing and using the personal financial statements is very important to financial planning. These tools help you to keep track of your client's financial positions and to monitor progress towards achieving financial goals.

Good records make it easier to prepare accurate personal financial statements and provide the necessary documentation for tax deductions. Ration analysis allows you to assess how well a client is doing relative to his/her past performance. The four important financial ratios are the solvency, liquidity, saving, and debt service ratios.

Borrowing money to make major purchases such as a car or a house is a reasonable way to manage the finances. From a financial planning perspective, two questions need be considered before taking a loan. First, does making this purchase fit into the financial plan? Second, does the required debt service on the loan fit into the monthly budget? As a result, credit and debt management is an important part in financial planning. The key point it to make sure that the debt will be fully compatible with the financial plan and cash budget before taking any loans.

In addition, you need to note the anomalies in the financial markets where market participants did not behave in a rational and predictable manner. Some understanding of the behavioural finance theories will help you to explain to your client on the logic and reasoning of your recommendations in the process of financial planning.

Chapter 6: Business Statistics

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Introduction

Business statistics is the science of collecting, organizing, presenting, analysing, and interpreting data to assist in making effective decisions. In the course of their work, financial planners use business statistics to assist them in decision-making and identifying solutions that meet their client's needs.

For example, a financial planner can use statistics to estimate the expected return and risks arising from an investment before advising his client on the investment. Alternatively, he can look at the demographic and economic data when he wants to predict the market for new products and services.

It must be noted that these statistics cannot replace the personal knowledge and experience of a financial planner. However, they are valuable tools that the planner can employ to assist in the decision-making process to reduce inherent risk.

Among other useful questions, you may ask why we are interested in estimating the mean and its standard deviation. Here are some applicable reasons.

Statistics must provide justifiable answers to the following concerns for every client and planner:

- (i) What is your client's expected return of the product/service you are providing? That is, what is a good estimate for the mean?
- (ii) Given the information about your client's expectation, what is the quality of the product/service you are providing? That is, what is a good estimate for standard deviation?

You should understand that a small value for the measure of dispersion indicates that the data is concentrated around the mean; therefore, the mean is a good representative of the dataset. On the other hand, a large measure of dispersion indicates that the mean is not a good representative of the dataset.

In addition, measures of dispersion can be used when we want to compare the distributions of two or more sets of data. The quality of a data set is measured by its variability: larger variability indicates lower quality. That is why high variation makes the planners and clients very worried.

We will now briefly discuss the statistics used widely by financial planners.

Learning Outcomes

1. Understand how business statistics are used in financial planning;
2. Explain standard statistical measures of locations and variations;
3. Discuss the properties of normal distribution;
4. Use the Central Limit Theorem to approximate the probabilities for a sample mean

Chapter 6 – Business Statistics

6.1 MEASURE OF LOCATION

Measure of location is a single value that summarises a set of data. It locates the centre of the values. There are several measures of location: the arithmetic mean, weighted mean, the median, the mode, and the geometric mean.

It may come as no surprise to you that there are many ways one can interpret the concept of ‘average’. The most common use of the term average usually refers to the arithmetic mean, but it could easily be used to refer to the median or mode, too. Hence, when communicating statistical averages, a professional financial planner must be technically adroit in the many ways other people can mean and misinterpret an ‘average’.

6.1.1 Arithmetic Mean

The arithmetic mean is computed by summing all numbers in an array of numbers and then dividing by the number of observations in the array.

$$\text{Arithmetic Mean} = \frac{\text{Sum of all values in the population}}{\text{Number of values in the population}}$$

$$\text{Population Mean } \mu = \frac{\sum X}{N}$$

where

μ represents the population mean. It is the Greek letter “mu.” N is the number of items in the population.

X is any value.

\sum indicates the operation of adding all the values. It is the Greek letter “sigma.” $\sum X$ is the sum of the X values.

The **sample mean** is the mean calculated from a sample of the population. The mean of a sample and the mean of a population are computed in the same way, but the shorthand notation is different. In terms of symbols, the formula for the mean of a sample is:

$$\text{Sample Mean } \bar{X} = \frac{\sum X}{n}$$

where

\bar{X} is the sample mean; it is read as “X bar”.

n is the number of values in the sample.

X is a particular value.

\sum indicates the operation of adding all the values. $\sum X$ is the sum of the X values.

There are several important properties of the mean:

- Every set of interval level and ratio level data has a mean.
- All the data values are included in the calculation.
- The mean is unique. That is, there is only one mean for a set of data.
- The sum of the deviations of each value from the mean will always be zero, that is:

$$\sum (X - \bar{X}) = 0$$

Example: Arithmetic Mean

Suppose you are assisting a client in preparing the salaries of his nine employees.

- *The CEO makes \$100,000 per year,*
- *Two managers make \$50,000 per year,*
- *Four factory workers make \$15,000 each, and*
- *Two trainees make \$9,000 per year.*

To calculate the arithmetic mean:

- You first add all the values in the set of data (\$100,000 + \$50,000 + \$50,000 + \$15,000 + \$15,000 + \$15,000 + \$9,000 + \$9,000). This will give you \$278,000.
- Then divide that total by 9 (the number of values in the set of data).
- That gives you the arithmetic mean, which is \$30,889.

The mean uses all the observations, and each observation affects the mean. Even though the mean is sensitive to extreme values; i.e., extremely large, or small data can cause the mean to be pulled toward the extreme data, it is still the most widely used measure of location. This is because the mean has valuable mathematical properties that make it convenient for use with inferential statistical analysis. For example, the sum of the deviations of the numbers in a set of data from the mean is zero, and the sum of the squared deviations of the numbers in a set of data from the mean is the minimum value.

Weighted Mean

Weighted mean is a special case of the arithmetic mean. It is often useful when there are several observations of the same value. To calculate the weighted mean, we must first multiply the value of each observation by the number of times it occurs. The sum of these products is divided by the total number of observations to determine the weighted mean.

In general, the weighted mean of a set of values, designated $X_1, X_2, X_3, \dots, X_n$, with the corresponding weights $w_1, w_2, w_3, \dots, w_n$ is computed by:

$$\bar{X}_w = \frac{w_1X_1 + w_2X_2 + w_3X_3 + \dots + w_nX_n}{w_1 + w_2 + w_3 + \dots + w_n}$$

The weighted mean is particularly useful when various classes or groups contribute differently to the total. For example, the coronary care unit of a hospital consists of nurses-aides who are paid \$14 per hour, nurses-assistants who earn \$18 per hour, and registered nurses who earn \$28 per hour. To say the average hourly wage for the coronary unit is $\$20$ per hour $(\$14 + \$18 + \$28) \div 3$ would not be accurate unless there were the same numbers of people in each group.

Example: Weighted Mean

Suppose the coronary care unit has ten employees: two aides who earn \$14 per hour, three nurses-assistants who earn \$18 per hour, and five registered nurses who earn \$28 per hour. The weighted mean is:

Thus, the weighted mean is \$22.20.

$$\begin{aligned}\bar{X}_w &= \frac{w_1X_1 + w_2X_2 + w_3X_3 + \dots + w_nX_n}{w_1 + w_2 + w_3 + \dots + w_n} \\ &= \frac{(2 \times \$14) + (3 \times \$18) + (5 \times \$28)}{2 + 3 + 5} = \$22.20\end{aligned}$$

6.1.2 Median

The median is the middle value in an ordered array of observations. If there is an even number of observations in the array, the median is the average of the two middle numbers. If there is an odd number of data in the array, the median is the middle number.

Example: Median

Using the data in the earlier example, the worker's salaries are as follows:

100,000
50,000
50,000
15,000
15,000
15,000
15,000
9,000
9,000

Since there are nine employees, the median salary will be the one which is halfway down the list, i.e., the fifth value, which is \$15,000.

Median is a useful measure when we encounter data with an extreme value. The major properties of the median are:

- It is not affected by extremely large or small values.
- It can be computed for ordinal-level data or higher.
- There is only one median value for each set of data.

6.1.3 Mode

The mode is the most frequently occurring value in a set of observations. Mode can be used when you want to be “correct” as often as possible, regardless of how, or to what degree your wrong choices are wrong. The classic example is the shirt/shoe manufacturer who wants to decide what sizes to introduce.

Example: Mode

In the above example, the mode is \$15,000, the value that occurs the most time.

A set of data can have more than one mode. If it has two modes, it is said to be bimodal. A disadvantage is that a set of data may not have a mode because no value appears more than once. The properties of the mode are:

- The mode can be found for all levels of data (nominal, ordinal, interval, and ratio).
- The mode is not affected by extremely high or low values.

6.1.4 The Geometric Mean

The geometric mean (G) of non-negative numerical values is the n th root of the product of the n values.

$$G = \sqrt[n]{x_1 x_2 \cdots x_n},$$

The geometric mean applies only to positive numbers. It is often used for a set of numbers whose values are meant to be multiplied together or are exponential in nature, such as data on the growth of the human population or interest rates of a financial investment. If some values are very large in magnitude and others are small, then the geometric mean is a better representative of the data than the simple average.

In a “geometric series”, the most meaningful average is the geometric mean. The arithmetic mean is very biased toward the larger numbers in the series.

Example: Geometric Mean

Suppose an orange tree yields 100 oranges one year and then 180, 210 and 300 the following years, so the growth is 80%, 16.7% and 42.9% for each year respectively.

Using the arithmetic mean calculates a (linear) average growth of 46.5% ($80\% + 16.7\% + 42.9\%$ divided by 3). If we start with 100 oranges and let it grow 46.5079% each year, the result is 314 oranges, not 300, so the linear average over-states the year-on-year growth.

Instead, we can use the geometric mean. Growing with 80% corresponds to multiplying with 1.80, so we take the geometric mean of 1.80, 1.167 and 1.429, which gives 1.442; thus the “average” growth per year is 44.2%. If we start with 100 oranges and let the number grow with 44.2249% each year, the result is 300 oranges.

6.1.5 The Harmonic Mean

The harmonic mean (H) is another specialized average, which is useful in averaging variables expressed as rate per unit of time, such as mileage per hour, number of units produced per day.

The harmonic mean of the positive real numbers $x_1, x_2, \dots, x_n > 0$ is defined as:

$$H = \frac{n}{\frac{1}{x_1} + \frac{1}{x_2} + \dots + \frac{1}{x_n}} = \frac{n}{\sum_{i=1}^n \frac{1}{x_i}}$$

In certain situations, especially those situations involving rates and ratios, the harmonic mean provides the truest average.

Example: Harmonic Mean

Suppose 4 machines in a machinery shop are used to produce the same part. Each of the four machines takes 2.5, 2.0, 1.5, and 6.0 minutes to make one part, respectively. What is the average speed to produce one part?

The harmonic mean is: $H = 4 / [(1/2.5) + (1/2.0) + 1/(1.5) + (1/6.0)] = 2.31$ minutes.

If all machines work for one hour, how many parts will be produced?

Since four machines running for one hour represent 240 minutes of operating time, then: $240 / 2.31 = 104$ parts will be produced.

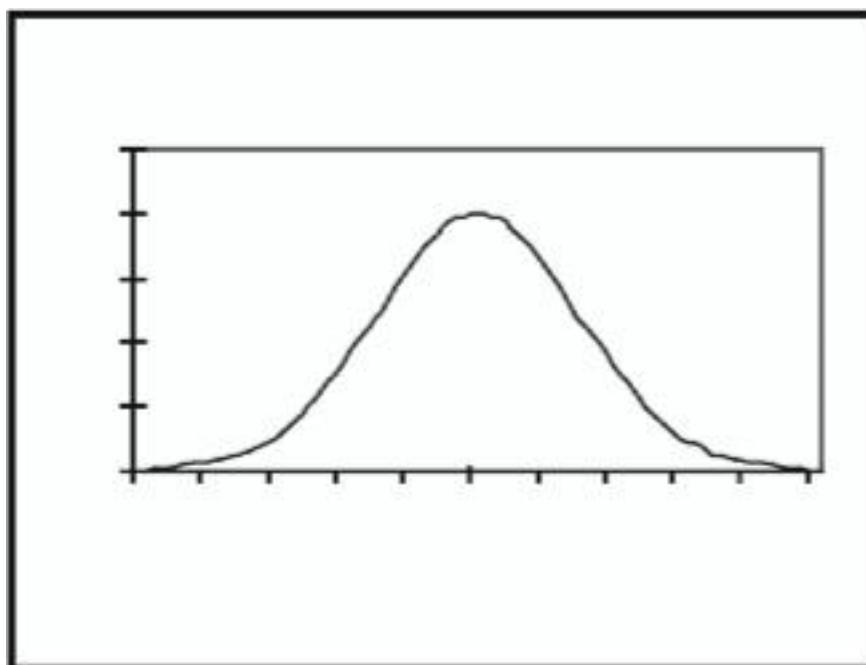
The harmonic mean is the preferable method for averaging multiples, such as the price/earnings ratio, in which price is in the numerator. If these ratios are averaged using arithmetic mean (a common error), high data points are given greater weights than low data points. The harmonic mean, on the other hand, gives equal weight to each data point.

6.1.6 Relative Positions of the Mean, Median, and Mode

Symmetrical distribution

Symmetrical distribution is one that has the same shape on either side of the centre. In a symmetrical distribution, the mean, median and mode are equal, and it has a bell-shape.

Example

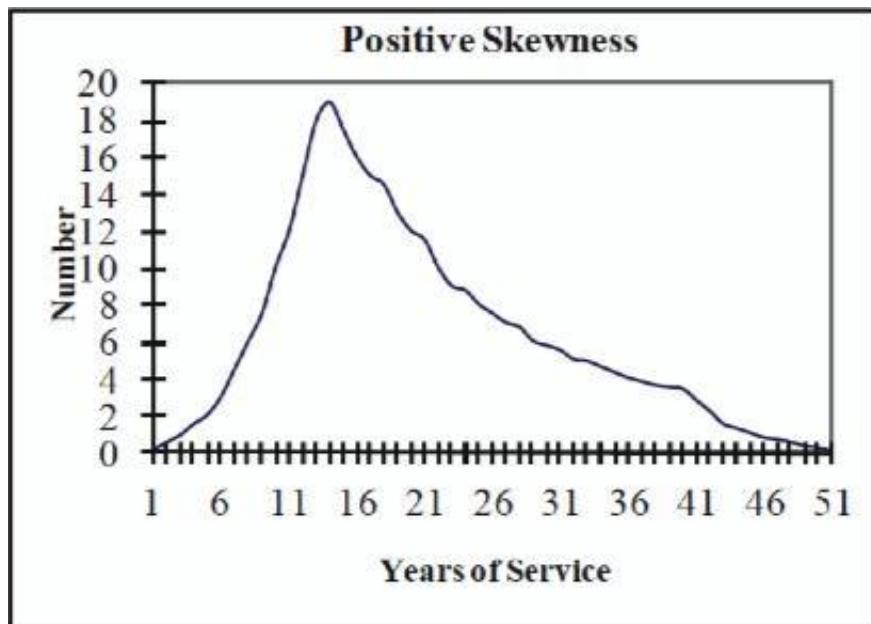


The above chart shows the useful life of a sample of batteries used in a CD player. Note the symmetrical bell-shape of the distribution and the mean, median and mode are equal.

Positively skewed distribution

When a distribution is not symmetrical, it is skewed and if the long tail is to the right; that is, in the positive direction, the distribution is said to be positively skewed. The mean is larger than the median or the mode.

Example

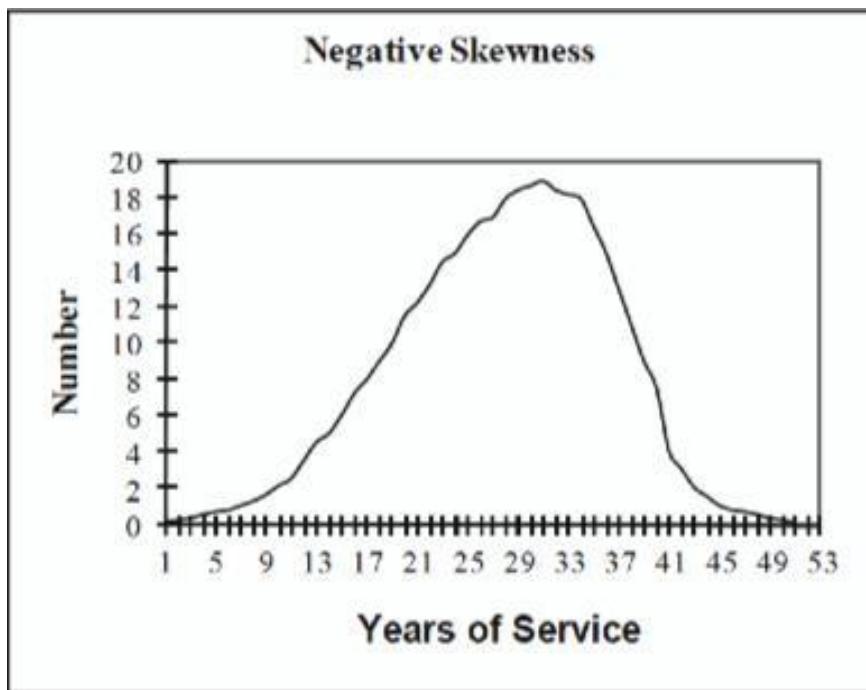


The above chart shows the years of service for a group of employees at an old manufacturing plant that was revitalised with a new product line and experienced a hiring surge about 13 years ago. It is a positively skewed distribution. The mean is larger than the median, which is larger than the mode.

Negatively skewed distribution

For a negatively skewed distribution, the long tail is to the left or in the negative direction. The mean is smaller than the median or mode. In skewed distributions, the mode always appears at the apex or top (highest point) on the curve and the mean is pulled in the direction of the tail. The median always appears between the mode and the mean, regardless of the direction of the tail.

Example



The chart on the right shows the years of service for a group of teachers in a school system that has an experienced staff and has not hired many staff members in recent years. The mean is smaller than the median, which is smaller than the mode.

Comparing the Arithmetic Mean, the Geometric Mean and the Harmonic Mean, we will have the following order among these three means: If all of the three means exist, then the Arithmetic Mean is never less than the other two. Moreover, the Harmonic Mean is never larger than the other two.

6.2 MEASURES OF DISPERSION

Dispersion is a measure of the spread of data. A small value for a measure of dispersion indicates that the data are clustered closely, say, around the arithmetic mean. Thus, the mean is considered representative of the data, that is, it is reliable. Conversely, a large measure of dispersion indicates that the mean is not reliable and is not representative of the data.

Example

Suppose a statistics instructor has two classes - one in the morning and one in the evening; and each with six students. In the morning class (A.M.), the students' ages are 18, 20, 21, 21, 23, and 23 years. In the evening class (P.M.), the ages are 17, 17, 18, 20, 25, and 29 years. Note that for both classes, the mean age is 21 years but there is more variation or dispersion in the ages of the evening students.

So, we can see that a direct comparison of two sets of data based only on measures of location such as the mean can be misleading since an average does not tell us anything about the spread of the data.

The four most common measures of dispersion are: the range, the mean deviation, the variance, and the standard deviation.

6.2.1 Range

The range of a set of observations is the absolute value of the difference between the largest and the smallest values in the dataset.

It measures the size of the smallest contiguous interval of real numbers that encompasses all the data values. It is not useful when extreme values are present. It is based solely on two values, not on the entire data set.

Example: Range

Using the same data in the earlier example, the range for the worker's salaries is \$91,000.

	Value
Highest	100,000
Lowest	9,000
Range = Difference	91,000

6.2.2 Mean Deviation

Mean deviation is the arithmetic mean of the absolute values of the deviations from the arithmetic mean. In contrast to the range, the mean deviation considers all the data. In terms of symbols, the formula for the mean deviation is:

$$MD = \frac{\sum |x - \bar{x}|}{n}, \text{ where } n \text{ is at least 2.}$$

where

x is the value of each observation.

\bar{x} is the arithmetic mean of the values.

n is the number of observations in the sample.

$|-|$ indicates the absolute value.

Example: Mean Deviation

	(X_i)	$(X_i) - (\bar{X})$	Absolute Deviation
	100,000	69,111	69,111
	50,000	19,111	19,111
	50,000	19,111	19,111
	15,000	(15,889)	15,889
	15,000	(15,889)	15,889
	15,000	(15,889)	15,889
	15,000	(15,889)	15,889
	9,000	(21,889)	21,889
	9,000	(21,889)	21,889
$n=9$			
Arithmetic Mean (\bar{X})	30,889		
$\sum X - \bar{X} $			214,667
Mean Deviation			23,852

We take the absolute value of the deviations from the mean because if not, the positive and negative deviations from the mean exactly offset each other, and the mean deviation would always be zero. Such a measure (zero) would be a useless statistic. The mean deviation is computed by first determining the difference between each observation and the mean. These differences are then averaged without regard to their signs. The disadvantage of the mean deviation is that the absolute values are difficult to manipulate mathematically.

6.2.3 Variance

An important measure of variability is variance. Variance is the average of the squared differences of each observation from the arithmetic mean (a) of all of the observations in the dataset. The variance is non-negative and is zero only if all observations are the same.

$$\text{Variance} = \sum(X - \bar{X})^2 / n, \text{ where } n \text{ is at least 2.}$$

Example: Variance

	(X_i)	$(X_i) - (\bar{X})$	$[(X_i) - (\bar{X})]^2$
	100,000	69,111	4,776,345,679
	50,000	19,111	365,234,568
	50,000	19,111	365,234,568
	15,000	(15,889)	252,456,790
	15,000	(15,889)	252,456,790
	15,000	(15,889)	252,456,790
	15,000	(15,889)	252,456,790
	9,000	(21,889)	479,123,457
	9,000	(21,889)	479,123,457
n = 9			
Arithmetic Mean (\bar{X})	30,889		
$\sum(X - \bar{X})^2$			7,474,888,889
Variance $\sum(X - \bar{X})^2 / n$			830,543,209.90

Variance is a measure of spread or dispersion among values in a dataset. The greater the variance, the lower the 'quality' of the mean to represent the dataset.

Variance is not expressed in the same units as the observations. In other words, the variance is hard to understand because the deviations from the mean are squared, making it too large for logical explanation. This problem can be solved by working with the square root of the variance, which is called the standard deviation.

6.2.4 Standard Deviation

Standard deviation is the positive square root of the variance. It tells you how tightly all the various data points are clustered around the mean in a dataset. When the data points are tightly bunched together and the bell-shaped curve is steep, the standard deviation is small. When the data points are spread apart and the bell curve is relatively flat, it means you have a relatively large standard deviation.

Both variance and standard deviation provide the same information; one can always be obtained from the other. In other words, the process of computing a standard deviation always involves computing a variance.

$$\text{Standard Deviation } SD = \sqrt{(\text{Variance})}$$

Since standard deviation is the square root of the variance, it is always expressed in the same units as the original units of measurement; therefore, it is easier to interpret; making it more widely used than the mean deviation or the variance.

Example: Standard Deviation

Using the variance obtained in the earlier example:

$$\begin{aligned} SD &= \sqrt{(\text{Variance})} \\ &= \sqrt{830,543,209.9} \\ &= 28,819 \end{aligned}$$

Applications of Standard Deviation

Chebyshev's Theorem

- For any set of observations (sample or population), the proportion of the values that lie within k standard deviations of the mean is at least $1 - 1/k^2$, where k is any constant greater than 1.
- It is used to determine the percent of the values that lie within a specified number of standard deviations of the mean.
- The theorem holds for any set of observations regardless of the shape of the distribution.

Empirical Rule

If the distribution is approximately symmetrical and bell shaped, then the Empirical Rule, or Normal Rule as it is often called, is applied.

Empirical Rule: For a symmetrical, bell-shaped frequency distribution, approximately 68 percent of the observations will lie within plus and minus one standard deviation of the mean; about 95 percent of the observations will lie within plus and minus two standard deviations of the mean; and practically all (99.7 percent) will lie within plus and minus three standard deviations of the mean.

The rule states that:

- The mean, plus and minus one standard deviation, will include about 68% of the observations.
- The mean, plus and minus two standard deviations, will include about 95% of the observations.
- The mean, plus and minus three standard deviations, will include about 99.7% of the observations.

6.2.5 Coefficient of Variation

Coefficient of Variation (CV) is the ratio of the standard deviation "SD" to the Mean 'X', provided 'X' is not zero, expressed in percentage:

$$CV = 100 |SD/X| \%$$

CV is independent of the unit of measurement. In the estimation of a parameter, when its CV is less than 10%, the estimate is assumed acceptable.

The coefficient of variation is used to represent the relationship of the standard deviation to the mean, telling how representative the mean is of the data points from which it came.

It expresses the standard deviation as a percentage of the mean; i.e., it reflects the variation in a distribution relative to the mean. It is a useful statistic for comparing the degree of variation from one dataset to another, even if the means are dramatically different from each other.

Example:

The CV of the example on the worker's salaries will be:

$$[28,819 / 30,889] \times 100\% = 93\%$$

6.3 PROBABILITY DISTRIBUTIONS

The emphasis in the earlier chapter is on the descriptive statistics which are used to collect, organise, and present data, as well as measures of central location and dispersion used to summarise data. A second facet of statistics deals with computing the chance that something will occur in the future. This facet of statistics is called inferential statistics.

An inference is a generalisation about a population based on information obtained from a sample. Probability plays a key role in inferential statistics. It is used to measure the reasonableness that a particular sample could have come from a particular population.

Probability is a value between zero and one, inclusive, describing the relative possibility (chance or likelihood) an event will occur. In general, it is a number that describes the chance that something will happen. It is expressed either as a percent or as a decimal. The likelihood that any event will happen may assume values between 0 and 1. A value close to 0 indicates the event is unlikely to occur, whereas a value close to 1 indicates that the event is quite likely to occur.

Random Variable

A random variable is a quantity resulting from an experiment that, by chance, can assume different values. The value it takes is determined by the outcome of an experiment. A random variable may have two forms: discrete or continuous.

Discrete Random Variable

A discrete random variable may assume only certain clearly separated values and is usually the result of counting. For example, the number of highway deaths in Arkansas on Memorial Day weekend may be 1, 2, 3,... Another example is the number of students earning a grade of B in a statistics class. In both instances, the number of occurrences results from counting. Note that there can be 12 deaths or 15 B's but there cannot be 12.63 deaths or 15.27 B grades.

A discrete random variable, in some cases, assumes fractional or decimal values but the values must have some distance between them. For example, the scores awarded by judges for technical competence and artistic form in figure skating are decimal values, such as 8.3 and 8.4. Such values are discrete because there is a distance between scores of 8.3 and 8.4. A score cannot be 8.34 or 8.347 for example.

Continuous Random Variable

A continuous random variable can assume one of an infinitely large number of values within certain limitations and is usually the result of a measurement. For example, if we measure something, such as the diameter of a tree, the length of a field, or the time it takes to run the Boston Marathon, the variable is called a continuous random variable.

Probability Distribution

A probability distribution is a listing of all the outcomes of an experiment and the probability associated with each outcome. If we organise a set of possible outcomes from a random variable and list its corresponding probability, the result is a probability distribution. Hence the difference between a random variable and a probability distribution is that a probability distribution lists all the possible outcomes as well as their corresponding probabilities while a random variable lists only the outcomes. We can use the mean and the variance to summarise a probability distribution.

Mean

The mean μ , or expected value $E(X)$, is used to represent the central location of a probability distribution. However, it does not tell us anything about the spread in the distribution. It is also the long-run average value of the random variable. It is computed by the following formula:

$$\text{Mean of a Probability Distribution } \mu = \sum [XP(X)]$$

This formula directs you to multiply each outcome (X) by its probability $P(X)$; and then add the products.

Variance and Standard Deviation

The variance tells us about the spread or variation in the data. The variance is computed using the following formula:

Variance of a Probability Distribution

The steps in computing the variance using the formula above are:

- Subtract the mean (μ) from each outcome (X) and square these differences.
- Multiply each squared difference by its probability $P(X)$
- Sum these products to arrive at the variance.

The standard deviation (σ) of a discrete probability distribution is found by calculating the positive square root of σ^2 .

6.3.1 Discrete Probability Distributions

A discrete probability distribution takes on only certain possible outcomes and the probabilities are the result of counting the various outcomes.

The following are important characteristics of a discrete probability distribution:

- The probability of a particular outcome is between 0 and 1 inclusive.
- The outcomes are mutually exclusive events.
- The list is exhaustive. So, the sum of the probabilities of the various events is equal to 1.

The discrete probability distribution can be presented as a table, graph or an equation. The most used discrete probability distributions are the Binomial and Poisson distribution while the uniform distribution is the simplest form of a discrete probability distribution.

6.3.2 Continuous Probability Distributions

A continuous probability distribution can assume an infinite number of values within a given range. For example, the weights for a sample of small engine blocks could be: 54.3, 52.7, 53.1 and 53.9 pounds. It describes the likelihood of a continuous random variable that has an infinite number of possible values within a specified range. The two common families of continuous probability distributions are the uniform probability distribution and the normal probability distribution.

An example of a uniform probability distribution is the flight time between Detroit and Chicago. Suppose the time to fly from Detroit to Chicago is uniformly distributed within a range of 55 minutes to 75 minutes. We can determine the probability that we fly from Detroit to Chicago in less than 60 minutes. Flight time is measured on a continuous scale.

An example of a normal probability distribution is the lifespan of an automobile battery. Suppose the life of an automobile battery follows the normal probability distribution with a mean of 36 months and a standard deviation of 3 months. We can determine the probability that a battery lasts between 36 and 40 months. Life of a battery is measured on a continuous scale. The normal probability distribution is often described by its mean and standard deviation.

6.3.3 Uniform Probability Distribution

The uniform probability distribution is the simplest distribution for a continuous random variable. The following are the characteristics of a uniform probability distribution:

- It is defined by a minimum ('a') and maximum ('b') values.
- Its values are spread evenly over a range of values that are rectangular in shape.
- The height of the distribution $P(X)$ is uniform for all values of the random variable 'X'. This implies that all the values in the range between 'a' and 'b' are equally likely.

The uniform probability distribution is constructed using the formula below:

$$\text{Uniform Distribution } P(X) = \frac{1}{b-a} \text{ if } a \leq X \leq b \text{ and } 0 \text{ elsewhere}$$

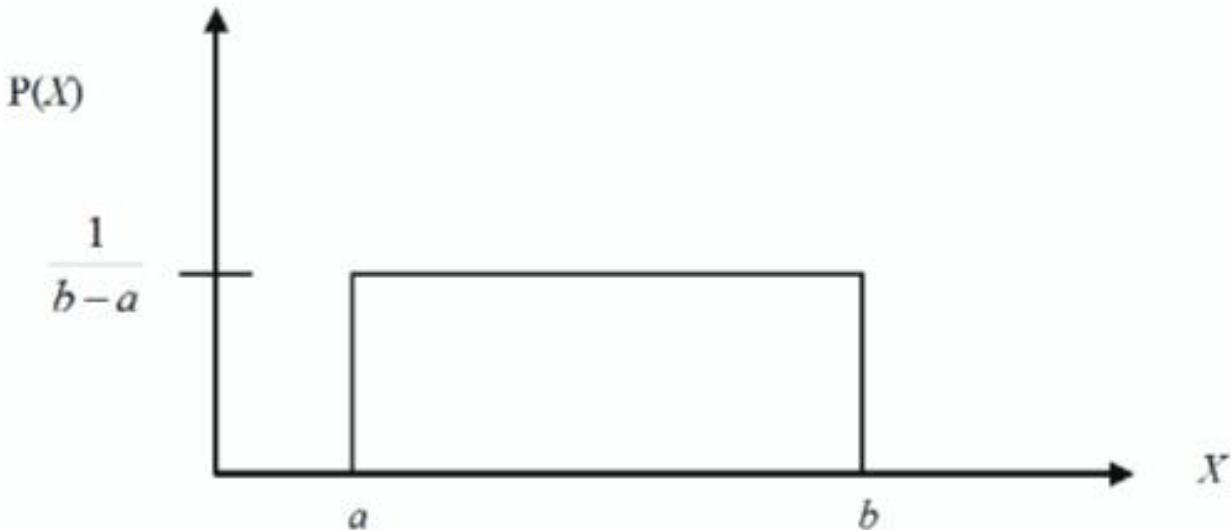
where $P(X)$ is the probability for a specified value of X .

X is the random variable of interest.

a is minimum value that random variable x can assume.

b is maximum value that random variable x can assume.

A graphical representation of the uniform probability distribution is shown below.



The mean of a uniform distribution is in the middle of the interval between the minimum value of 'a' and a maximum value of 'b'. It is calculated using the following formula:

$$\text{Mean of a Uniform Distribution} \quad \mu = \frac{a+b}{2}$$

The standard deviation of a uniform distribution is also related to the interval between the minimum value of 'a' and a maximum value of 'b' and is calculated using:

$$\text{Standard Deviation of a Uniform Distribution} \quad \sigma = \sqrt{\frac{(b-a)^2}{12}}$$

Example

Suppose that the time to fly from Detroit to Chicago is uniformly distributed within a range of 55 minutes minimum to 75 minutes maximum. The mean is found by using:

$$\mu = \frac{a + b}{2} = \frac{55 + 75}{2} = 65$$

Thus, the mean flight time is 65 minutes.

The standard deviation is calculated using the formula:

$$\sigma = \sqrt{\frac{(b - a)^2}{12}} = \sqrt{\frac{(75 - 55)^2}{12}} \approx 5.8$$

Thus, the standard deviation for the flight is 5.8 minutes.

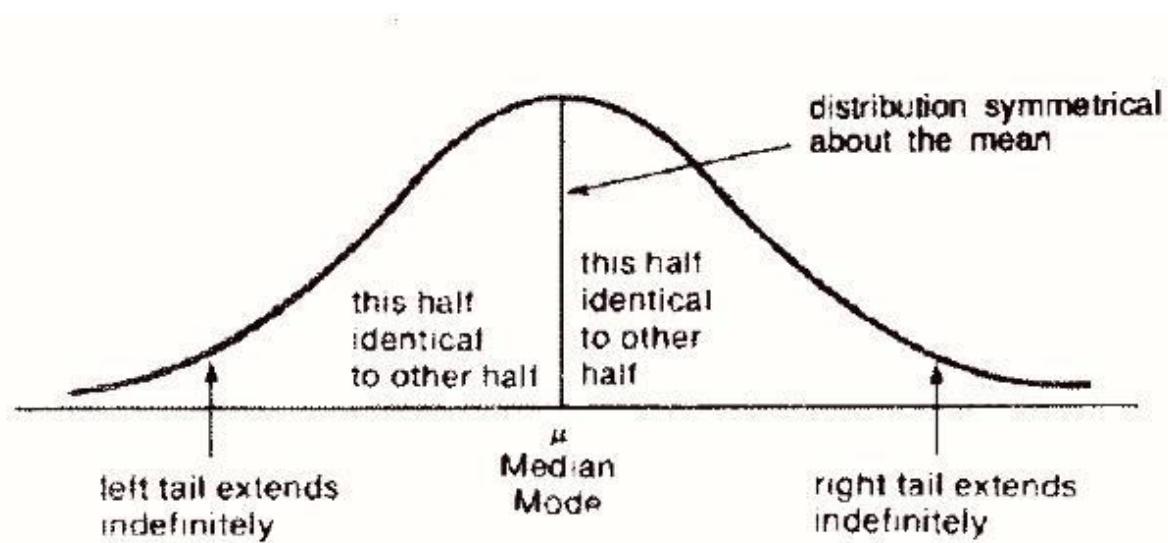
6.4 NORMAL PROBABILITY DISTRIBUTION

The normal probability distribution is the most important continuous probability distribution, and it is uniquely determined by 2 parameters: mean (μ) and standard deviation (σ).

The major characteristics of the normal probability distribution are:

- The normal probability distribution is “bell-shaped” and the mean, median, and mode are all equal and are in the centre of the distribution. Exactly one-half of the area under the normal curve is above the centre and one-half of the area is below the centre.
- The distribution is symmetrical about the mean. A vertical line drawn at the mean divides the distribution into two equal halves and these halves possess the same shape.
- It is asymptotic. That is, the tails of the curve approach the X-axis but never actually touch it.
- A normal probability distribution is completely described by its mean and standard deviation. This indicates that if the mean and standard deviation are known, a normal probability distribution can be constructed, and its curve drawn.
- There is a “family” of normal probability distributions. This means there is a different normal probability distribution for each combination of μ and σ .

These characteristics are summarised in the below graph.

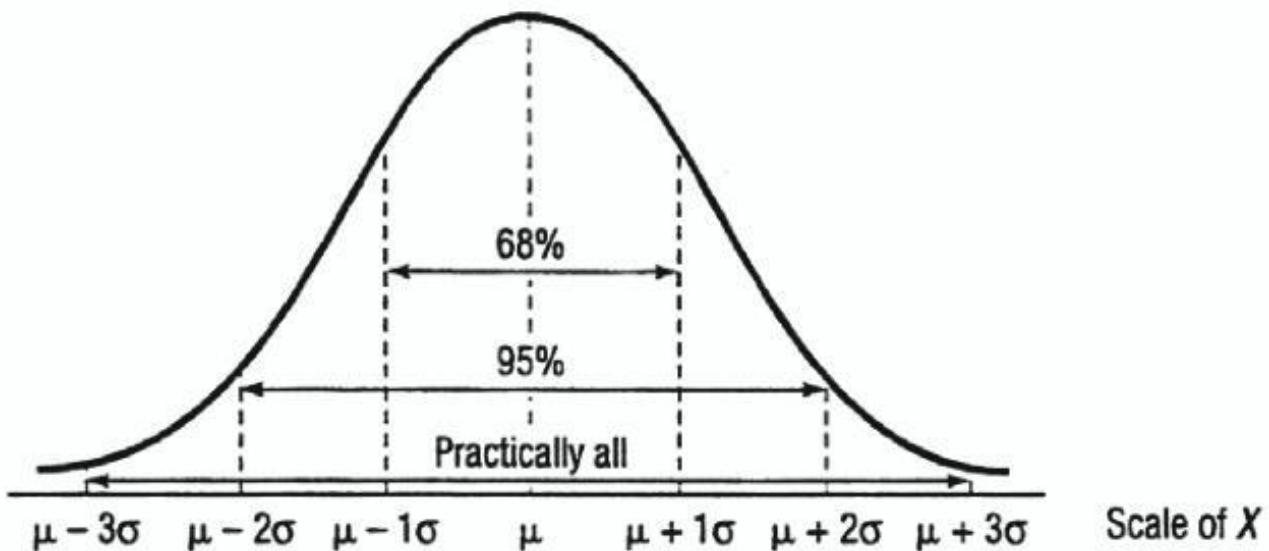


The normal probability distribution is a very important statistical data distribution pattern which is applicable to a wide range of real-world situations, such as people's height, blood pressure, lengths of objects produced by machines, etc. Certain data, when graphed as a histogram (data on the horizontal axis, amount of data on the vertical axis), creates a bell-shaped curve known as a normal curve, or normal distribution.

Normal distributions are symmetrical with a single central peak at the mean (average) of the data. The shape of the curve is described as bell-shaped with the graph falling off evenly on either side of the mean. Fifty percent of the distribution lies to the left of the mean and fifty percent lies to the right of the mean.

The spread of a normal distribution is controlled by the standard deviation. The smaller the standard deviation, the more concentrated the data. The mean and the median are the same in a normal distribution.

Below is the graphical representation of standard deviation in a normal distribution.



The Central Limit Theorem

The Central Limit Theorem states that for a normal distribution:

- About 68 percent of the area under the normal curve is within plus one and minus one standard deviation of the mean. This can be written as $\mu \pm 1\sigma$.
- About 95 percent of the area under the normal curve is within plus and minus two standard deviations of the mean, written as $\mu \pm 2\sigma$.
- Practically 99 percent of the area under the normal curve is within three standard deviations of the mean, written as $\mu \pm 3\sigma$.

If this curve were flatter and more spread out, the standard deviation would have to be larger to account for those 68 percent or so of the sample. So that's why the standard deviation can tell you how spread out the examples in a set are from the mean.

Example

Using the examples, we have shown earlier, we can conclude that the average salaries of the workers is \$30,889 and there is a 68 per cent probability that salaries can spread out by \$28,819, to either \$59,708 or \$2,070.

Summary

The aim of learning statistics is to understand and be able to interpret statistical calculations performed by others. Eventually, we are looking at statistics every day, such as train and busses schedules and routes, football results, debt analysis, houses pricing, survey of games played by gender and age, birth and death, time series of population of people, students results and many more. It is essential to acquire the analytical and interpretative skills to generate the necessary information for decision making.

In statistics, we extract meaningful information from piles of raw data and make inferences about the nature of a population based on observations of a sample taken from that population. Statistics helps us to do a prediction on the rates of occurrence of random events, which is known as the probability occurrence on the distribution.

Learning statistics can help a financial planner to understand data in the financial planning process and it helps them to make sound decisions on a certain hypothesis created.

Chapter 7: Time Value of Money

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Introduction

A large part of financial planning is about numbers. Cash flow, rates of return, asset value, financing, and a few dozen other ratios and measures are no better or worse than the bottom line. Understanding that bottom line correctly, however, must involve time value of money because any cash flow expected to be received in the future might not be worth its amount today.

Time value of money is the concept of measuring the value of money over time. The idea is straightforward. Because money seldom remains static but changes in value over time, it must be measured against time. Time value allows comparisons of cash flows occurring at different points in time.

For example, if you stash \$10,000 away under a mattress until next year, you might be disappointed to discover that, due to inflation alone, you wouldn't be able to enjoy the same purchasing power with that same amount of money next year, as you would today.

Time erodes the value of money. Therefore, understanding the concept of the time value of money is crucial for formulating solutions in personal finance, investment, banking, and insurance. As a financial planner, this knowledge is indispensable.

Learning Outcomes

1. Understand the impact of inflation on the value of money;
2. Analyse the factors that impact on interest rate.
3. Make critical calculations on the present and future value of money;
4. Apply the concept of annuity and perpetuity.
5. Apply the time value of money to value financial and real assets

Chapter 7 – Time Value of Money

7.1 INTEREST RATE

7.1.1 The concept of interest rate

The common idea of interest rate is that it is the price of money. If a person needs money, he can borrow this amount from another person or a financial institution, he needs to pay this price of money or the interest on the amount borrowed. Similarly, if a person is planning to invest his surplus money, he will receive the price of money or interest for the amount invested.

Though this idea of interest provides an understanding of how interest rate operates, it will not provide an understanding as to how this interest rate is determined in the market. Therefore, the first step is to understand how the concept of interest arises.

Consider an individual who is expected to last for only one period, from time 1 to time 2. At time 1, he will earn an income of I_1 and at Time 2; he will earn an income of I_2 . Also assume that no financial market for lending or borrowing exists. In this case, the consumption amount for the individual is easy to determine. Since he cannot lend or borrow money, he will consume the total income at time 1 as well as at time 2. Thus, the amount of consumption for this individual will be:

$$C_1 = I_1 \text{ and}$$

$$C_2 = I_2$$

Now let us introduce financial market that allows individuals to either borrow or lend money to others. In this case, the individuals can choose their consumption pattern according to their needs. Let us assume that the interest rate in the market is $r\%$.

Consider an individual, who decides to consume nothing in time 1 so that he lends his total income I_1 at $r\%$. This amount of investment will grow to $I_1(1 + r)$ by time 2 and at that time he will also receive income of I_2 . Thus, his consumption at time 2 will be $I_1(1 + r) + I_2$ or

$$C_1 = 0 \text{ and}$$

$$C_2 = I_1(1 + r) + I_2$$

On the other hand, another individual may decide to borrow money against his future income and consume everything at time 1 and will consume nothing at time 2. In this case, he will borrow $I_2 / (1 + r)$ at time 1 and his consumption at time 1 and time 2 will be:

$$C_1 = I_1 + I_2 / (1 + r) \text{ and}$$

$$C_2 = 0$$

The above two cases are extreme cases. Consider an individual who plans to consume C_1 , which is less than I_1 . The surplus amount of $(I_1 - C_1)$ will be lent in the market at $r\%$. This will result in an income from investment of $(I_1 - C_1) * (1 + r)$. The amount of income at time 2 will be I_2 . Thus, total consumption at time 2 will be $(I_1 - C_1) * (1 + r) + I_2$.

Note that the amount of consumption C_2 is dependent on the amount of consumption C_1 . If one chooses to consume less at time 1, there will be more consumption at time 2 and vice versa. Thus, one can choose how much to consume at time 1, by deciding how much consumption is required at time 2 based on the interest rate.

An individual must choose his consumption at time 1 and time 2 from very many opportunities available, which depend on the interest rate. In case interest rate is known, the task is simpler because he can choose either the amount of consumption at time 1 or at time 2 as the other will be decided on the amount chosen for the first. If he chooses a particular C_2 , the amount of C_1 will be fixed based on C_2 and r . Similarly, if he chooses a particular C_1 , the amount of C_2 will be fixed based on C_1 and r .

Interest rate is also explained in terms of liquidity. Ready cash in hand is highly liquid and can be used immediately by any individual if need for cash arises. On the other hand, if the individual has lent this money to someone else and if the individual required immediate cash, it will not be available readily as he needs to collect the money from the borrower. Thus, the individuals lose the liquidity of ready cash and would require compensation for parting with liquidity.

Whether interest rate is compensation for postponing current consumption or compensation for parting with liquidity, these do not provide a model that can be used to determine the interest rate. Instead, these arguments only substantiate the reasons for interest rate.

7.1.2 Real and Nominal Interest Rates

In this context, it is necessary to understand what interest rate represents. If interest rate is the compensation for postponing current consumption for increased future consumption, one should be clear as to what consumption means. Does it mean consumption of goods and services in monetized terms? For example, assume that a person can consume 20 loaves of bread today. Instead, he postpones his consumption by consuming only 15 loaves of bread and lends 5 loaves to neighbour who promises to return 6 loaves of bread in the future. In this case, postponing consumption has resulted in increased future consumption. On the other hand, assume that a loaf of bread costs \$2 and currently an individual consumes 20 loaves of bread or \$40 for bread. He decides to postpone the consumption by consuming only 15 loaves or \$30 and decides to invest \$10 at 10% interest rate. In this case, he would receive \$11 at a future time. Does this increase his future consumption for bread?

It depends on what happens to the price of bread. If the price of bread remains at \$2, he can buy 5.5 loaves of bread at a future time. If the price of bread increases to \$2.20, the individual can buy only 5 loaves of bread with \$11 and even though he received 10% interest rate, his consumption has remained the same. This happened because the price of bread increased by 10%, causing the effect of interest to be nullified by increased price of bread. If bread price increases to \$2.30, he can buy only 4.78 loaves and postponing current consumption decreased future consumption because the bread price rose by 15% while interest rate was only 10%.

This discussion brings to us the notion of real interest rate and nominal interest rate. The real interest rate is the desired increase in consumption in units by individuals postponing current consumption for the future. Since it is difficult for an individual to calculate for an individual to calculate increase in consumption units for each individual consumption item, a basket of consumption item is often used.

This basket is usually the same basket that is used for calculating the consumer price index. The real interest rate will be the increase in consumption units included in the consumer price index assuming the prices of all items in the consumption basket did not change, or inflation is zero. Real interest rate can also be the increase in consumption after adjusting for inflation where inflation rate reflects the increase in the consumer price index.

The nominal rate of interest is the actual amount of interest that an individual will receive when he lends money, or nominal interest rate is the increase in the money. If we need to calculate the actual increase in consumption, we need to take the effect of inflation from the nominal interest rate.

Let us look at the example of bread again. When the bread price remains at \$2, or where the inflation was 0, the increase in consumption is 0.5 loaves of bread for an investment of 5 loaves, or an increase in consumption of bread by 10%. Thus, real interest rate is 10% and nominal interest rate is also 10%.

When bread price increases by 10% to \$2.20, the increase in bread consumption is 0. This is equivalent to real rate of 0% and nominal rate of 10% and inflation of 10%. When bread price increases by 15% to \$2.30, the bread consumption falls by 0.22 loaves or by 4.4%. This gives us a nominal rate of 10%, inflation of 15% and real rate of – 4.4%. This example shows that real rate, nominal rate, and inflation rate are related by the following equation, developed by Irving Fisher:

$$(1 + \text{nominal rate}) = (1 + \text{real rate}) * (1 + \text{inflation rate})$$

Since interest rates are determined for future, the inflation rate should be the expected inflation rate in the future. In practice, an approximate version of the above equation is used as:

$$\text{Nominal rate} = \text{Real rate} + \text{Expected inflation}$$

Caution must be used in interpreting this relation. Real rate of interest is unknown, and one can only estimate it from the nominal rate and expected inflation. It is very difficult to estimate the expected inflation because the consumption basket for calculation of the consumer price index contains elements, which have price volatility. Examples would be crude oil price, which affects petrol and gas prices as well as rent on properties that can be highly volatile.

The nominal rate of interest is often determined by the governments as part of a tool to adjust monetary policies, which can lead to violation of this relation. This relation is a long-term relationship. However, it may not hold every short-term period. There may be periods in which interest rates are very low and inflation is higher than the nominal rates causing real rates to be negative.

7.1.3 Determination of Interest Rates

Since interest rates are changing over time, theories have been developed to explain how interest rate is determined and what causes interest rate to change over time. One of the common theories used for this purpose is known as Loanable Funds Theory. According to this model, the level of interest rates is the result of factors that affect supply and demand for loanable funds. The demand for loanable funds describes the total net demand for funds by fund users. The financial market participants in this theory include consumers, businesses, governments, and foreign participants. The participants at times could be net suppliers of funds and could be net demanders at other times.

Supply of Loanable Funds

The quantity of loanable funds increases if interest rate rises. This is because the savers who postpone current consumption will have an increased consumption, which would motivate them to save and postpone current consumption. Thus, with other factors held constant, any increase in interest rate will increase the savings and supply for funds.

Household consumers are the most important suppliers of funds. Households would supply funds when there is excess income or when they want to reallocate funds for portfolio purposes. During high economic growth in the country, the disposable income of households increases, which may result in them, supplying funds through the purchase of securities. Thus, as the wealth of the consumer increases, the supply of loanable funds would also increase. In addition to the interest rates and total wealth, consumers also may look at the risk of securities. The amount of funds supplied in general would decrease if the households perceived the risk of their investments to be high. In addition, the supply of funds will also be affected by near-term spending needs of households such as medical or educational needs.

Another sector that supplies loanable funds is the business sector. If the cash flow to business is high, the business may decide to supply the excess funds it has for a short-term investment. The amount of funds supplied would depend on the amount of funds available and the need for funds to provide for working capital needs and long-term investment.

Governments can also supply loanable funds. This can happen when the cash inflow is higher than the amount needed for meeting the budgeted expenses. The government may provide these excess funds for short-term until needed.

Foreign investors also supply funds to a local market if they find investment in a foreign country to be more attractive than investing in the domestic market. This decision will depend on the interest rate prevailing in the two countries, the risk of securities available, as well as the exchange rate volatility.

Economic conditions and monetary policies of the government can also impact the supply of loanable funds. If the economy is doing well with high growth and low unemployment, the disposable income in households as well as cash flow of businesses will increase resulting in increased supply of loanable funds. On the other hand, poor economic conditions with low growth and high unemployment will result in lower disposable income in households as well as lower cash flow to businesses. This would result in decreased supply of loanable funds.

The government uses monetary policies to manage inflation. When the economy is doing well, increased disposable income will result in the government restricting the money supply. This restricted money supply would make the financial institutions to restrict their loans to businesses. Thus, monetary contraction would lead to lower supply of loanable funds. In case of economic contraction, the government generally increases money supply, which they hope would stimulate the economy. The banks would be willing to extend funds to businesses and thus supply of loanable funds will increase when there is monetary expansion.

Demand for Loanable Funds

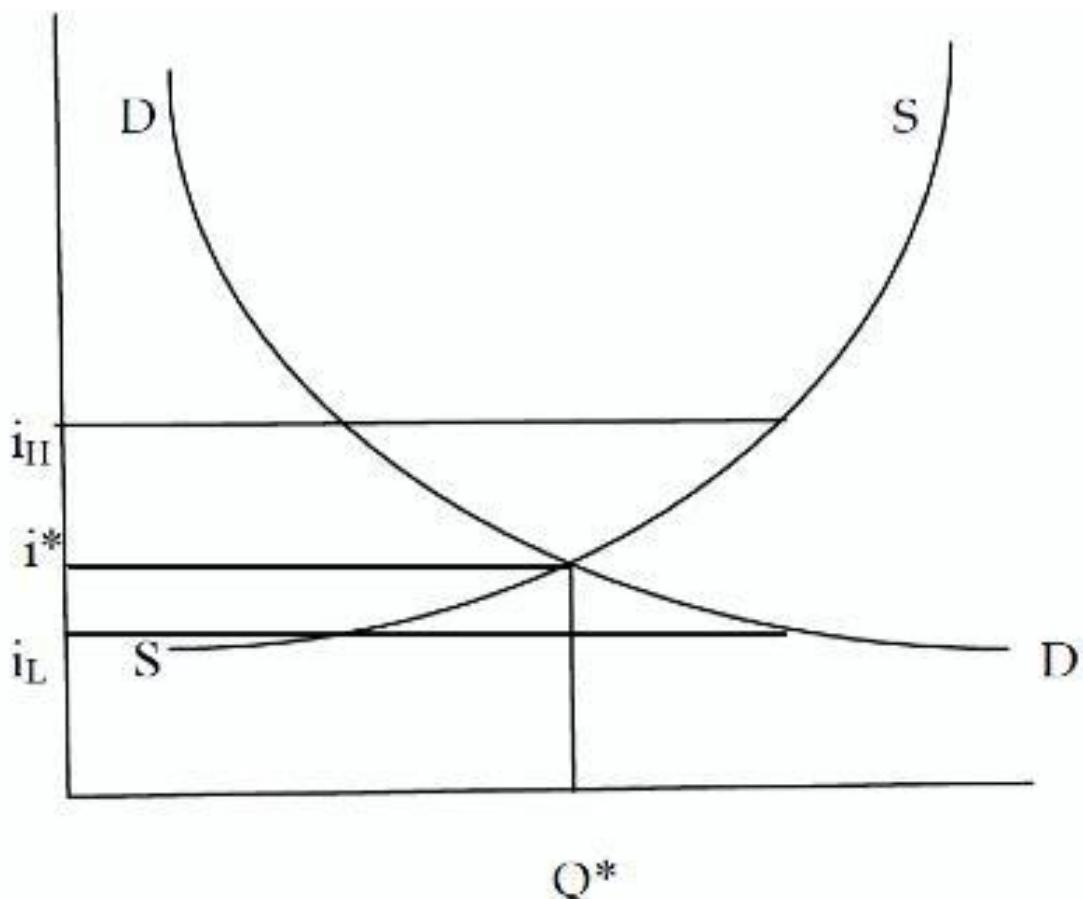
Generally, demand for loanable funds would decrease as interest rate increases and demand for loanable funds would increase as interest rate decreases. Since interest rate is the explicit cost of funds, cost of obtaining funds will be higher when interest rate increases and hence demand will reduce.

Household demand funds for purchase of homes, durable goods such as cars and appliances and non-durables such as education and medical facilities. Businesses require funds to finance both long-term investments and working capital needs. When interest rate is high, businesses would prefer to finance the needs through internally generated funds rather than raising the same in financial markets, reducing demand for loanable funds. If the economic conditions are good, businesses are likely to have more profitable projects, which would increase the demand for loanable funds.

Governments' demand for loanable funds arise as the government needs funds to manage day-to-day operations as well as to undertake projects such as infrastructure and other facilities.

Equilibrium Interest Rate

The total supply of loanable funds from households, businesses, governments, and foreign participants will be called aggregate loanable supply of funds. The total demand for loanable funds from households, businesses, governments will be called aggregate loanable demand for funds. The equilibrium interest rate is determined when aggregate demand for loanable funds equals the aggregate supply. This is shown in the figure below.



If the actual interest rate i_L is lower than the equilibrium interest rate i^* , it means that there is a shortage of loanable funds supplied compared to the demand. Those who need funds would be prepared to pay a higher interest rate to obtain the funds which, in turn would induce the suppliers of loanable funds to increase the supply. This process will continue until equilibrium interest rate i^* is reached. Similarly, if actual interest rate i_H is higher than i^* , there will be oversupply of funds compared to the demand. Since the suppliers have excess funds, which they would like to invest, they will be willing to accept a lower interest rate causing demand for loanable funds to increase. This process will continue until the interest rate decreases to reach the equilibrium interest rate.

The interest rate stays in equilibrium only for a very short term. If there is any change in the supply or demand of loanable funds, there will be shifts in the demand curve or supply curve moving the equilibrium interest rates continuously. Though this model of interest rate determination is theoretically sound, it is difficult to estimate the demand or supply of loanable funds at any point in time. Moreover, this model is applicable only for the determination of real interest rates and because of the difficulty in estimating the demand and supply, determination of real interest rate is also very difficult.

Though equilibrium interest rate can be determined through interaction of supply and demand of loanable funds, the interest rate can also be affected by the government intervention in the financial market as a part of the monetary policy.

7.1.4 Monetary Policy and Interest Rate

The monetary policy of a government is based on its desire to influence either the demand for, or supply of, money and hence the level of interest. The change from implementation of monetary policy will trigger events that affect economic factors such as short-term and long-term interest rates, exchange rates, amount of money and credit available in the country and the level of employment, output, and prices.

In case the economy is doing very well, the disposable income and level of employment would be high and demand for goods and services would increase. This would result in increase in price of goods and services, as businesses would find it difficult to increase supply of goods or services to meet the demand. The increase in price of goods and services will cause inflation to rise. Since one of the major considerations for governments is to control inflation at a reasonable level, the government would decide to decrease the money supply.

As discussed in Chapter 4, the money supply can be changed through any of the following methods:

- i) Open-market operations
- ii) Discount rate
- iii) Reserve deposits by financial institutions

7.1.5 Various Interest Rates

In any economy, there may be various interest rates specified. In this section, we will discuss the different rates and roles that the rates play.

Discount Rate

Discount rate is the interest rate that the Central Bank charges for loans provided to commercial banks. This is the basic minimum rate at which banks can obtain funds. All other interest rates in the economy are based on the discount rate.

Interbank Rate

Interbank rate is the interest rate at which one bank can borrow or lend money to another bank. This is known as Fed Funds Rate in USA.

According to the reserve ratio requirement imposed by the Central Bank, each commercial bank is required to maintain a certain portion of deposits as cash. Since the cash balance at the end of each day is dependent upon the transactions of deposits and lending on that day, the cash balance at the end of the day could be highly variable. On some days, cash balance could be more than the amount required as reserve requirement and, on some days, could be less than the amount required.

When a bank has shortfall of cash relative to the amount required for meeting the reserve requirement, it can borrow money from some other bank which has a cash balance more than the need to meet reserve requirement. This rate at which one bank will lend to another bank is known as Interbank offer rate and the rate at which the bank will borrow from another is known as the Interbank bid rate. Many banks offer other loans based on the interbank rate.

With globalization of financial markets, it may be necessary for banks to borrow or lend different currencies as part of the operations. This is also done in the interbank market. For example, HSBC in London may provide a US dollar loan to a British company and may not have sufficient US dollar funds to make the loan. HSBC may decide to borrow USD from Citibank to fulfil the loan obligations. There are several interbank rates used when interbank borrowings are based on a different currency than the local currency. Among these interbank rates, the most important rate is known as the London Interbank rates, which can be either London Interbank Offer Rate (LIBOR), or London Interbank Bid Rate (LIBID).

LIBOR is the rate at which one bank will lend to another, whereas LIBID is the rate at which one bank is willing to borrow from others. LIBOR rate will state the currency as well as the maturity of the loan contract. For example, 3-month USD LIBOR means the rate at which one bank will lend USD for three-month period. If it is 6-month JPY LIBOR, it means the rate at which one bank will lend JPY for 6-month period. British Bankers' Association daily fixes LIBOR whereas LIBID is negotiated between banks.

In Singapore, the term SIBOR is used whereas TIBOR is used in Tokyo and MIBOR in Mumbai. For any currency, say, USD, LIBOR will be closely related to the interbank USD rate in the USA and SIBOR, TIBOR and MIBOR will also be close to one another.

Treasury Bill Rate

Governments issue Treasury bills to fund their short-term needs. Treasury bills are traded in the secondary market. The return from T-bills is known as the T-bill rate.

Since interbank rates are based on the transactions between banks, these rates are not applicable for individuals as well as financial institutions other than banks. The minimum rate on investment for these investors would be T-bill rate.

Prime Rate

T-bill rate is offered to investors who invest in T-bills. However, only governments can borrow at T-bill rate. For non-governmental entities, the major source of funds is through bank loans. While providing loans, banks would consider the credit risk of the borrower. Different businesses will have different credit risks and credit rating agencies will analyse the credit risk of the borrower and provide a rating. The bank will provide the lowest rate, known as the prime rate to borrowers who have the highest credit rating. Thus, prime rate is the rate on loans provided by banks to businesses that have the highest credit rating.

Loan Rate

The rate, which individuals and other businesses can borrow, will be based either on interbank rate or prime rate, depending on the risk involved in providing the loan. Banks will assess the risk and a premium for the risk will be added to either interbank or prime rate to determine the loan rate. The loan rate will specify the basic rate and the risk premium; and the loan rate will be stated as LIBOR + premium or Prime rate + premium.

7.1.6 Fixed and Floating Interest Rates

When an entity borrows money, it can do so either as fixed rate loan or as floating rate loan. Consider a fixed-rate loan of \$100,000 for 5 years at 8% with interest to be paid every year. This means that the borrower needs to pay interest at 8% of the loan amount of \$100,000 at the end of each year.

However, if the loan contract requires that the borrower needs to pay interest every 6 months, then the interest amount of \$8,000 per year would be paid in two instalments of \$4,000 each with payments every 6 months.

In a fixed-rate loan, the amount of interest paid every period when interest is due is the same and is calculated based on the interest rate loan amount and number of times interest is to be paid every year.

If the loan is a floating-rate loan, the loan terms are usually based on a reference rate. The reference rate can be interbank rate, LIBOR or prime rate. In addition to the reference rate, the terms will also state the premium over the reference rate and how often the loan rate will be reset during the life of the loan. In floating rate loan, the interest rate on the loan will change depending on the change in the reference rate.

For example, consider the floating rate loan stated as: LIBOR + 2% for \$100,000, 3 years with reset every 6-months.

In such a loan, interest rate on the loan depends on the level of LIBOR every 6 months. If LIBOR increase, the interest rate on the loan would increase causing an increase in the amount of interest. On the other hand, amount of interest will decrease if the interest rate on the loan decreases. The interest rate for the first period of 6-months would be based on the LIBOR at the time loan contract is entered. Assume LIBOR and loan rates for the next 3 years are as follows:

Time	LIBOR	Loan rate
0	4%	6%
6 months	4.3%	6.3%
1 year	4.8%	6.8%
1 year 6 months	4.5%	6.5%
2 years	4.7%	6.7%
2 years 6 months	4.6%	6.6%

The loan rate for the first 6 months would be 6%. The annual interest at 6% on the loan of \$100,000 will be \$6000. However, interest is to be paid only for six months. Thus, interest at the end of 6 months will be $100,000 * 6\% / 2 = \$3000$. So, interest of \$3000 will be paid at the end of 6 months.

Interest rate and interest payments over 3-year period can be calculated as:

Payment at	Loan Rate	Semi-annual Interest
6 months	6%	\$3,000
12 months	6.3%	\$3,150
18 months	6.8%	\$3,400
24 months	6.5%	\$3,250
30 months	6.7%	\$3,350
36 months	6.6%	\$3,300

If the loan is a floating rate loan, the amount of interest to be paid every period would depend on the reference rate at the time of reset, which is unknown at the time loan contract, is entered. Thus, the borrower can face either increased or decreased interest payments at a future time. On the other hand, a fixed rate loan fixes the interest rate throughout the life of the loan and hence there is no uncertainty of interest payments at a future time.

7.2 TIME VALUE OF MONEY

When a person borrows money, the contract will require that the person pay interest periodically as well as the principal amount of the loan at the time of maturity. Consider a loan of \$100,000 for 5 years at 8% per annum with interest paid every 6 months. This means that payments would be as follows:

Period	Amount
6 months	4000
12 months	4000
18 months	4000
24 months	4000
30 months	4000
36 months	4000
42 months	4000
48 months	4000
54 months	4000
60 months	104000

However, note that \$4000 is paid at different times over the 5 years. Is \$4000 paid at the end of 6 months the same as \$4000 paid at the end of 60 months? Similarly, is the \$100,000 borrowed at time 0, the same as \$100,000 to be repaid at the end of 5 years? Does the period at which payment is made have any influence on the amount paid? This aspect of study is known as the time value of money. According to the principle of time value of money, the value of \$1 today is worth more than \$1 to be received after some period.

The value of money at a future time could be different from the value of money at the current time due to:

- a) Impact of inflation, and
- b) Impact of investment opportunities

Impact of Inflation

If inflation is positive, the amount of money needed to purchase goods and services at the future time will be more than the amount of money needed to purchase the same goods and services at the current time. For example, if inflation rate for the next year were estimated as 3%, goods and services costing \$100 today would require \$103 after one year. Thus, one can say that today's money is more valuable than money at the end of the year.

On the other hand, if inflation is negative, the amount needed for future purchase is lower than the amount needed today. In this case, the value of money in the future will be worth more than the money at the current time. Even though periods of negative inflation do not occur often, it is possible for inflation to be negative, which can cause the value of money to increase over time.

Impact of Investment opportunities

Consider an individual who has excess funds of \$1000. He can either keep that as cash itself or invest it in some form of financial security. If the amount is kept as cash, the \$1000 will still be available after one year. However, if he invests in a financial security that offers interest rate of 4%, he will have \$1040 after one year; an additional \$40. By holding cash, the individual will thus lose the opportunity of earning interest on the cash, and hence it is always advantageous for the individual to invest in a financial security that offers a positive interest rate. Under this scenario, the value of \$1000 that is in hand today will be worth more than \$1000 at a future time because it can be invested to receive positive interest in future. This is always true except when the interest rate is negative.

However, if the interest rate is negative, there will be no incentive for the individual to invest the money and hence he will hold cash without any investment. This indicates that the value of money at the current time will always be greater than the value of money at future time, except when the interest rate is negative, in which case the value of money at a future time would be the same as the value of money at current time.

Thus, the principle of time value of money states that the value of money at current time is always higher than value of money at future time based on the impact of investment opportunity, and the impact of inflation will not be considered in this directly. However, impact of inflation is considered indirectly because nominal rate of interest is inclusive of expected inflation.

In discussing time value of money, we should distinguish between future value and current value. In this chapter, we will discuss how to calculate present value and future value of different cash flows.

The Rule of 72

Suppose you have not learned the concepts of time value of money and do not have a financial calculator to help you, but you want to know how long it takes for your money to double. There is an easy way to approximate this using the rule of 72. Simply divide the number 72 by the percentage rate you are earning on your investment;

Number of years to double your money = $72/\text{annual compound interest rate}$

For example, assume that you recently opened a saving account with \$2,000 that earns an annual compound rate of interest of 5 percent. Your money will double in 14.4 years ($72/5 = 14.4$). On the other hand, if you find a \$2,000 investment that earns 6.25 percent, you will have \$4,000 in about 11.5 years ($72/6.25 = 11.5$).

The rule of 72 also applies to debts. Your debts can quickly double with high interest rates, such as those charged on most credit card accounts. So, keep the rule of 72 in mind whether you intend to invest or borrow.

7.2.1 Future value

Future value refers to the value of money invested today at a future time. Consider an individual who deposits \$100 in a bank savings account that offers interest at 5% with interest paid at the end of each year. What will be the balance in the account at the end of each year for the next 5 years?

The balance will depend on whether the interest scheme is simple interest scheme or compound interest scheme.

Simple Interest Scheme

If interest is paid as simple interest, the amount of interest paid would be calculated on the original deposit and the amount of interest will be calculated as:

$$\text{Interest amount} = \text{Original deposit} * \text{Interest rate}$$

In the example, interest amount = $100 * 5\% = \$5$. The balance at the end of each year for the next 5 years would be as follows: assuming the amount of interest is kept in the account.

<u>Year</u>	<u>Starting balance</u>	<u>Interest</u>	<u>Closing balance</u>
1	\$100	\$5	\$105
2	\$105	\$5	\$110
3	\$110	\$5	\$115
4	\$115	\$5	\$120
5	\$120	\$5	\$125

Compound Interest Scheme

If the interest scheme is compound interest scheme, interest will be paid on the balance remaining in the account at the start of the period for which interest is calculated. For example, interest for year 1 will be calculated based on the original deposit made. The balance at the end of one year will equal the original deposit plus the interest for year 1. For year 2, interest will be paid on the balance at the end of year 1 and not on the original deposit. The balance at the end of year 1 will include the interest received in year 1 and thus interest for year 2 will be the interest on original deposit plus interest on the interest received in year 1. Therefore, compound interest scheme includes interest on original deposit as well as interest on interest earned earlier.

In the example, the interest for each year and the balance at the end of each year for 5 years is shown:

<u>Year</u>	<u>Starting balance</u>	<u>Interest</u>	<u>Closing balance</u>
1	\$100	\$5	\$105
2	\$105	\$5.25	\$110.25
3	\$110.25	\$5.51	\$115.76
4	\$115.76	\$5.79	\$121.55
5	\$121.55	\$6.08	\$127.63

If we compare the balance at the end of year 5 for simple and compound interest schemes, we find that compound interest scheme shows a balance of \$127.63 while simple interest shows \$125. The additional \$2.63 comes from interest on interest received during the 5 years. In practice, compound interest scheme is always used and hence we will assume that compound interest is used in the concept of time value of money.

Calculation of Future Value

To understand how to calculate the future value, consider a bank deposit of \$A at an interest rate of r % for one year. The bank account will pay interest of \$A*r for the first year. Thus, the balance at the end of year 1 will be the initial deposit \$A and interest of \$A*r. Thus, the balance at the end of the first year will be $A + A * r = A(1 + r)$. Thus, the future value of \$A at an interest rate of r % at the end of year 1 will be written as: $FV(A, r, 1) = A(1 + r)$. Assume that the account lasts for two years. In this case, the bank will pay an interest of r % on the balance of \$A(1 + r) at the end of year 1 for year 2. This will provide the balance at the end of year 2 as the sum of the balance at the beginning of year 2 and interest during year 2 as:

$$\begin{aligned} \text{Balance at the end of year 2} &= A(1 + r) + A(1 + r) * \\ r &= A(1 + r)(1 + r) = A(1 + r)^2 \end{aligned}$$

$$\text{Thus: } FV(A, r, 2) = A(1 + r)^2$$

What will the balance be at the end of year 3?

$$\begin{aligned} \text{Balance at the beginning of year 3} &= A(1 + r)^2 \\ \text{Interest for year 3} &= A(1 + r)^2 * r \end{aligned}$$

$$\begin{aligned} \text{Balance at the end of year 3} &= A(1 + r)^2 + A(1 + r)^2 * r \\ &= A(1 + r)^2(1 + r) = A(1 + r)^3 \\ \text{Thus, } FV(A, r, 3) &= A(1 + r)^3 \end{aligned}$$

We have seen that:

$$FV(A, r, 1) = A(1 + r)$$

$$FV(A, r, 2) = A(1 + r)^2$$

$$FV(A, r, 3) = A(1 + r)^3$$

This can be generalized for any period t as:

$$FV(A, r, t) = A(1 + r)^t$$

The process of calculating the future value is known as compounding.

Example:

James invests \$1000 at an interest rate of 8% for 4 years. What is the amount he will receive at the end of 4 years?

Here we are calculating the future value at the end of year 4: $FV(1000, 8\%, 4) = 1000(1 + .08)^4 = \1360.49

In calculating future value, there are four variables, namely, amount of investment necessary A, interest rate r, number of years of investment t and future value at the end of year t, FV (A, r, t). Using this relationship, we can calculate the value of any one of the variables if we know the other 3 variables.

Example:

John wants to accumulate \$1400 in 3 years, and he has \$1000 to invest today. What should the interest rate be, for him to accomplish this purpose?

$$\text{Since } FV(A, r, t) = A * (1 + r)^t$$

$$(1 + r)_t = FV / A$$

$$(1 + r) = (FV / A)^{1/t}$$

$$r = [(FV / A)^{1/t} - 1]$$

Here, r = [

$$(1400/1000)^{1/4} - 1] = 8.7757\%$$

If the funds can be invested at 8.7757%, the investment of \$1000 will accumulate to \$1400 in 3 years.

Example:

Jack plans to buy a car after 2 years. He estimates that he would need \$110,000 to buy the car at that time. If he can invest his funds at 6%, how much should he invest today?

Given, FV = \$110,000, r = 6%, t = 2 years. What is the present value A?

$$A * (1.06)^2 = 110,000$$

$$\text{Or } A = 110,000 / (1.06)^2 = \$97,899.61$$

Therefore, Jack needs to invest \$97,899.61 today to accumulate \$110,000 in 2 years at 6%.

So far, we have assumed that interest will be paid once at the end of each year. However interest may be paid more than once a year. We will consider how to calculate the future value of situations when interest is paid more than once a year.

Case 1: Semi-annual compounding

Interest is paid twice a year or every 6 months. In this case, interest will be compounded twice in a year and the process is called semi-annual compounding. The process of calculating future value with semi-annual compounding is explained below:

Assume that \$A is invested for 1 year at interest rate of r % and interest will be paid every 6 months. What will be the value of this investment at the end of 1 year?

Since interest is paid every 6 months, the amount of interest will be calculated as:

The interest rate of r % is on annual basis and hence the interest amount for the whole year will be A * r. Since this amount is paid twice a year, the amount of interest every 6 months will be half of the yearly interest. Thus, interest for the first 6 months will be A * r/2.

This can be viewed as interest being paid at the rate of $r/2$ where $r/2$ is the interest rate for 6 months. This is also referred to as periodic rate for each compounding period. Since there are two compounding periods periodic rates will be calculated by dividing the annual interest rate by 2 or periodic rate is $r/2$.

The amount of investment at the end of 6 months will be $A + A * r/2 = A (1 + r/2)$. Interest will be paid on this amount over the next 6 months at $r/2$. Thus, interest for the second 6 months will be: $A (1 + r/2) * r/2$. The value of investment at the end of the year will be $A * (1 + r/2) * (1 + r/2) = A * (1 + r/2)^2$. This shows that future value at the end of year 1 of \$A at interest rate r compounded semi-annually is given by:

$$A * (1 + r/2)^2$$

If we want to calculate the future value at the end of 2 years, we need to calculate the value of investment at the end of 18 months and then at the end of 24 months. Interest for the period starting at the end of year 1 and ending at end of 18 months will be:

$$A * (1 + r/2)^2 * r/2 \text{ and value of investment at that time will be:}$$

$$A * (1 + r/2)^2 + A * (1 + r/2)^2 * r/2 = A * (1 + r/2)^3$$

Interest for the period starting at the end of 18 months and ending at the end of 24 months will be:

$$A * (1 + r/2)^3 * r/2 \text{ and value of interest at that time will be:}$$

$$A * (1 + r/2)^3 + A * (1 + r/2)^3 * r/2 = A * (1 + r/2)^4$$

This shows that we can generalize the calculation of FV for semi-annual compounding by comparing the calculation of FV for annual compounding. If investment is for 1 year at $r\%$, annual compounding and semi-annual compounding will show future value as:

Future value = $A * (1 + r)^1$ for annual compounding Future

value = $A * (1 + r/2)^2$ for semi-annual compounding

In annual compounding, r is the interest rate for a single compounding period and the superscript 1 is the number of times compounding takes place. In semi-annual compounding, $r/2$ is the interest rate for each compounding period or periodic interest rate and 2 in the superscript is the number of times compounding takes place in a year.

If we can generalize for 't' years, the future value will be calculated as:

$$\mathbf{FV (A, r/2, 2t) = A * (1 + r/2)^{2t}}$$

Where $r/2$ is the periodic rate and $2t$ is the number of compounding in t years.

Example:

Consider an investment of \$1000 at 8% for 4 years. What will be the future value if it is semi-annual compounding?

$$FV(A, r/2, 2t) = 1000 * (1 + 0.08/2)^{2*4} = \$1368.57$$

When interest is calculated using annual compounding, future value was calculated to be \$1360.49 whereas semi-annual compounding provides a value of \$1368.57. This higher amount is due to interest being compounded more times.

Since interest is compounded twice a year, we would like to know what the equivalent annual rate, if interest is compounded only once instead of two times in a year. That is, what interest rate, r , would result in the same future value with semi-annual compounding if the interest was compounded only once. Equivalent annual rate is calculated as follows:

Since future value at the end of 1 year with semi-annual compounding is given by $A * (1 + r/2)^2$ and future value with annual compounding is given by $A * (1 + r_{EQ})$, these two must be equal. Thus,

$$A * (1 + r_{EQ}) = A * (1 + r/2)^2; \text{ or}$$

$$r_{EQ} = (1 + r/2)^2 - 1$$

Note that equivalent annual rate will always be higher than the stated annual rate.

Example:

Consider an investment of \$1000 at 8% for 4 years, with semi-annual compounding. What is the equivalent annual rate?

With semi-annual compounding, the future value at the end of 1 year is given by:

$$FV(A, r/2, 2r) = 1000 * (1 + .08/2)^2 = \$1081.60$$

If the FV equals to \$1081.60 with annual compounding at r_{EQ} , r_{EQ} can be calculated as:

$$r_{EQ} = (1081.60 / 1000) - 1 = 8.16\%$$

This is the same as:

$$r_{EQ} = (1 + r/2)^2 - 1 = (1 + 0.08/2)^2 - 1 = 8.16\%$$

Case 2: Quarterly Compounding

Quarterly compounding means that interest will be paid every quarter or interest will be compounded four times a year. The process of calculating future value with quarterly compounding is explained below:

Assume \$A is invested for 1 year at interest rate of $r\%$ with quarterly compounding. Since annual rate is $r\%$ and there are 4 compounding periods a year, periodic rate is $r/4$ and interest every period will be paid at $r/4$ based on balance at the beginning of the period. The balance at the end of every period for a year is calculated as shown below:

Period	Beginning balance	Interest	Ending balance
End of 3 months	A	$A * r/4$	$A * (1 + r/4)$
End of 6 months	$A * (1 + r/4)$	$A * (1 + r/4) * r/4$	$A * (1 + r/4)^2$
End of 9 months	$A * (1 + r/4)^2$	$A * (1 + r/4)^2 * r/4$	$A * (1 + r/4)^3$
End of 12 months	$A * (1 + r/4)^3$	$A * (1 + r/4)^3 * r/4$	$A * (1 + r/4)^4$

Thus, future value $FV(A, r/4, 4) = A * (1 + r/4)^4$

Comparison of future value with annual and semi-annual compounding with quarterly compounding shows:

Annual compounding: $A * (1 + r)$

Semi-annual compounding: $A * (1 + r/2)^2$

Quarterly compounding: $A * (1 + r/4)^4$

This shows that future value calculated as:

Future value = $A (1 + \text{periodic rate})^{\text{number of periods}}$

We can also calculate equivalent annual rate when quarterly compounding is used as:

$$R_{EQ} = (1 + r/4)^4 - 1$$

Example:

Consider an investment of \$1000 at 8% for 4 years with quarterly compounding. What will the future value at the end of 4 years be and what is the equivalent annual rate?

$$FV(A, r/4, 4t) = 1000 * (1 + 0.08/4)^{4*4} = 1000 * (1.02)^{16} = \$1372.79$$

$$\text{Equivalent annual return} = (1 + r/4)^4 - 1 = 1.02^4 - 1 = 8.2432\%$$

Case 3: Monthly compounding

Monthly compounding means that interest will be paid every month or interest will be compounded twelve times a year. The process of calculating future value with monthly compounding is explained below.

Assume \$A is invested for 1 year at interest rate of r % with monthly compounding. Since annual interest rate is r % and there are 12 compounding periods in a year, periodic rate is r/12 and interest every period will be paid at r/12 based on the balance at the beginning of the period. Therefore, future value will be calculated as:

$$FV(A, r/12, 12) = A * (1 + r/12)^{12}$$

And equivalent annual rate will be calculated as:

$$\text{Equivalent annual rate} = (1 + r/12) 12 - 1$$

Example:

Consider an investment of \$1000 at 8% for 4 years with monthly compounding. What will the future value be at the end of 4 years and what is the equivalent annual rate?

$$FV(A, r/12, 12t) = 1000 * (1 + 0.08/12)^{4*12} = 1000 (1.0067)^{48} = \$1375.67$$

$$\text{Equivalent annual rate} = (1 + r/12)^{12} - 1 = 8.3\%$$

Case 4: Daily compounding

Daily compounding means that interest will be paid daily. However, the number of times compounding will take place depends on the convention used. In the US, the general convention is to assume 360 days in a year and the periodic rate will be calculated based on 360 days. However, the number of compounding period s will be either 365 or 366 days depending on whether it is an ordinary year or a leap year. On the other hand, many countries use the convention of using periodic rate calculated based on 365 days.

Future value under 360 days will be calculated as:

$$FV(A, r/360, 365) = A * (1 + r/360)^{365}$$

And equivalent annual rate will be calculated as:

$$\text{Equivalent annual rate} = (1 + r/360)^{365} - 1$$

Future value under 365 days will be calculated as:

$$FV(A, r/365, 365) = A * (1 + r/365)^{365}$$

And equivalent annual rate will be calculated as:

$$\text{Equivalent annual rate} = (1 + r/365)^{365} - 1$$

Example:

Consider an investment of \$1000 at 8% for 4 years with daily compounding. What will the future value be at the end of 4 years and what is the equivalent annual rate?

With 360 days in a year:

$$FV(A, r/360, 365*t) = 1000 * (1 + 0.08/360)^{365*4} = \$1383.21$$

$$\text{Equivalent annual rate} = (1 + .08/360)^{365} - 1 = 8.4482\%$$

With 365 days in a year:

$$FV(A, r/365, 365*t) = 1000 * (1 + 0.08/365)^{365*4} = \$1377.08$$

$$\text{Equivalent annual rate} = (1 + .08/365)^{365} - 1 = 8.3278\%$$

The following table summarizes the calculation of future value and equivalent annual rate for different compounding periods.

Compounding scheme	Future value	Equivalent annual rate
Annual	$(1 + r)^t$	r
Semi-annual	$(1 + r/2)^{2t}$	$(1 + r/2)^2 - 1$
Quarterly	$(1 + r/4)^{4t}$	$(1 + r/4)^4 - 1$
Monthly	$(1 + r/12)^{12t}$	$(1 + r/12)^{12} - 1$
Daily (360 days)	$(1 + r/360)^{360t}$	$(1 + r/360)^{360} - 1$
Daily (365 days)	$(1 + r/365)^{365t}$	$(1 + r/365)^{365} - 1$

7.2.2 Future value for a series of cash flows

So far, we discussed how to calculate the future values of a single cash flow invested. In many cases, there will be a series of cash flows involved. For example, many people save for their retirement by making investments every month so that they can accumulate enough to take care of their retirement needs.

The series of cash flow could be of two types:

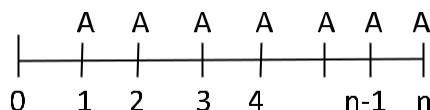
- a) The amount of cash flow will be equal every period and interval between periods will also be equal. For example, a mortgage loan will require payment of the same amount every month. When payment amount is the same and the interval between periods is also equal, the series of cash flow is called an annuity.
- b) The amount of cash flow will not be equal every period or the interval between periods will not be equal, or both. Some mortgages allow different amount of payments in different months.

First, we will consider the calculation of future value of annuities and then consider calculation of future value of different cash flows.

i) Future Value of Annuity

In an annuity, equal amount of cash will be invested at equal intervals and the investment will take place at the end of the period. The investment will receive interest at the same rate throughout the investment period. The future value of an annuity will be calculated as follows:

Assume that equal payment amount is \$A every period. Also assume that the constant interest rate is $r\%$ per year and investment will be made at the end of each year. The investment will be for a period of n years. This can be illustrated in a timeline.



The timeline indicated that amount A will be invested at the end of each year for the next n years. To calculate the future value of the total investment at the end of n years, we can calculate the future value of each of the payments at time n .

FV of payment at the end of year 1 = $A (1 + r)^{n-1}$ as amount of A will be invested for n-1 years
 FV of payment at the end of year 2 = $A (1 + r)^{n-2}$ as amount of A will be invested for n-2 years
 FV of payment at the end of year t = $A (1 + r)^{n-t}$ as amount of A will be invested for n-t years

FV of payment at end of year n will be invested for 0 year as payment would have just been made.
 The FV of the series of these payments would then equal the sum of the future values of each of the investments.

Thus, future value of annuity = $FVA = A (1 + r)^{n-1} + A (1 + r)^{n-2} + \dots + A (1 + r)^{n-n}$

This can be written as:

$$FVA (A, r, n) = \sum_{t=1}^n A * (1 + r)^{n-t} = A \sum_{t=1}^n (1 + r)^{n-t}$$

Since $FVA = A [(1 + r)^{n-1} + (1 + r)^{n-2} + \dots + (1 + r) + 1]$, multiply both sides by $(1 + r)$ to get

$$FVA (1 + r) = A [(1 + r)^n + (1 + r)^{n-1} + (1 + r)^{n-2} + \dots + (1 + r)]$$

and subtracting FVA from $FVA (1 + r)$, we get

$$FVA (1 + r) - FVA = A [(1 + r)^n - 1] ; \text{ or}$$

$$FVA (r) = A [(1 + r)^n - 1]$$

$$\text{Thus, } FVA = A \{[(1 + r)^n - 1] / r\}$$

Example:

Assume that you invest \$1000 at the end of each year for the next 10 years. What will be the future value of this series of investments at the end of 10 years given that interest rate is 8%?

$$\begin{aligned} FVA &= A \{[(1 + r)^n - 1] / r\} \\ &= A \{[(1 + 0.08)^{10} - 1] / 0.08\} = \$14,486.60 \end{aligned}$$

Thus, \$1000 invested at the end of every year for 10 years at an interest rate of 8% will accumulate to \$14,486.60

Example:

At the age of 30, you decide that you should start investing some money at the end of each year until you reach the age of 65. You also estimate that you would require accumulating a sum of \$1.25 million at that time. If interest rate is 6%, how much should you invest at the end of every year?

Here, $FVA = \$1.25$ million, $r = 6\%$ and $n = 35$ years.

$$A = FVA / \{[(1 + r)^n - 1] / r\} = \$11,217.32$$

This means that you need to invest \$11,217.32 at the end of every year for 35 years to get \$1.25 million at the end of 35 years.

In the above example, it was assumed that investment would be made at the end of each year. It is also possible that investment can be made a greater number of times in a year. In that case, future value of annuity will be calculated using periodic rate and appropriate number of periods.

Example:

You invest \$1000 at the end of every 6 months for the next 10 years. If the interest rate is 6%, what will be the value of investment at the end of 10 years?

Since investment is made every 6 months, it will be semi-annual compounding with periodic rate of $6/2 = 3\%$.

Number of periods will be $10 * 2 = 20$. Thus, $FVA(A, r/2, 2n) = FVA(1000, .03, 20) = 1000 \{[(1 + 0.03)^{20} - 1] / 0.03\} = \$26,870.37$

Example:

You invest \$500 at the end of every 3 months for the next 10 years. If the interest rate is 6%, what will be the value of investment at the end of 10 years?

Since investment is made every 3 months, it will be quarterly compounding with periodic rate of $6/4 = 1.5\%$ and the number of periods will be $10 * 4 = 40$.

$$FVA = (500, 1.5\%, 40) = 500 \{[(1 + 0.015)^{40} - 1] / 0.015\} = \$27,133.95$$

Example:

You invest \$150 at the end of every month for the next 10 years at an interest rate of 6%. What will be the value of the investment at the end of 10 years?

Since investment is made every month, it will be monthly compounding with periodic rate of $6/12 = 0.5\%$ and number of periods will be $12 * 10 = 120$.

$$FVA(150, 0.5\%, 120) = 150 \{[(1 + 0.005)^{120} - 1] / 0.005\} =$$

\$24,581.90

ii) Future Value of Annuity Due

When discussing annuity, it was stated that investment would be made at the end of each year. If investment is made at the beginning of each year instead of at the end, then it is called annuity due. Future value for annuity due can be calculated as follows:



Future value of annuity due is the sum of future value of each of the investments and is given by:

$$\begin{aligned} \text{FVAD} &= A (1 + r)^n + A (1 + r)^{n-1} + \dots + A (1 + r) \\ &= A [(1 + r) + (1 + r)^2 + \dots + (1 + r)^n] \\ &= A (1 + r) [1 + (1 + r) + (1 + r)^2 + \dots + (1 + r)^{n-1}] \\ &= (1 + r) \text{ FVA since } \text{FVA} = A [1 + (1 + r) + (1 + r)^2 + \dots + (1 + r)^{n-1}] \end{aligned}$$

Thus, future value of annuity due is calculated as $\text{FVAD} = (1 + r) \text{ FVA}$

Example:

You invest \$1000 at the beginning of each year for the next 10 years. What will be the value of this investment at the end of 10 years if the interest rate is 8%?

Here, it is annual compounding with $A = \$1000$, $r = 8\%$, $n = 10$ years and annuity due

$$\text{is } \text{FVAD} = (1 + r) \text{ FVA} = 1.08 * 1000 * [(1.08^{10} - 1) / 0.08] = \$15,645.50$$

iii) Future value with varying interest rates

In calculation of future value, we have assumed that interest rate will remain constant throughout the investment period. However, we know that the interest rate can change during the period. In this case, how can we calculate the future value? First, we will consider calculation of future value for a single sum and then for an annuity.

Example:

You plan to invest \$1000 for two years. You can either invest it for two years at the rate of 8% per year or you can invest it for the first year at 7% and at 9% for the second year. Which of these alternatives would have a higher future value?

- a) FV if investment is for 2 years: $1000 (1.08)^2 = \$1166.40$
- b) FV at the end of year 1 with 7% rate: $1000 * (1.07) = \$1070$.

This amount will be invested for one year at 9% to get a future value of: $1070 (1.09) = \$1166.30$.

Future value when interest rate changes is calculated as $\text{FV} = A (1 + r_1) (1 + r_2)$

Where r_1 is the interest rate for year 1 and r_2 is the interest rate for year 2.

Example:

You invest \$500 at the end of every month for two years at an interest rate of 7% for the first year and 8% for the second year. What will the future value be, at the end of 2 years?

Since FVA relation can be used only when the interest rate is constant, we need to treat the payments as two annuities. The first annuity is \$500 at the end of each month for 1 year at 7% and \$500 for each month in the second year at 8%.

FVA of first year annuity: $500 * [(1 + 0.07 / 12) / (0.07 / 12)] = \6196.29

This amount will earn interest at 8% in the second year: $6196.29 * (1 + 0.08 / 12)^{12} = \6710.58 .

Note that monthly compounding is used for calculating the future value to be consistent.

FVA of second annuity at the end of year 2 = $500 * [(1 + 0.08 / 12) / (0.08 / 12)] = \6224.96

Future value of the investment after 2 years: $6710.58 + 6224.96 = \$12,935.54$

iv) Future value for variable stream of cash flows

Annuity means that each payment amount is the same. In practice, it may be possible that the payment can be different at different periods. It is necessary to know how to calculate the future value.

Example:

You plan to invest \$500 at the end each month for 10 years and then \$700 at the end of each month for the following 10 years. The interest rate is 8%. What would be the value of investment at the end of 20 years?

This can be considered as two annuities:

Annuity 1 is \$500 at the end of each month for 20 years and annuity 2 is \$200 at the end of each month for years 11 to 20.

FVA of first annuity = $500 * [(1 + 0.08 / 12)^{240} - 1 / (0.08 / 12)] = \$294,510.20$

FVA of second annuity = $200 * [(1 + 0.08 / 12)^{120} - 1 / (0.08 / 12)] = \$36,589.21$

Value at the end of 20 years = $\$294,510.20 + \$36,589.21 = \$331,099.40$

This can also be calculated as the sum of two annuities as:

Annuity 1 is \$500 at the end of each month for 10 years, which is compounded for another 10 years.

Annuity 2 is \$700 at the end of each month for 10 years.

FVA of the 1st annuity: $500 * [(1 + 0.08 / 12)^{120} - 1 / (0.08 / 12)] = \$91,473.02$

FV of this amount after 20 years = $91473.02 * (1 + 0.08 / 12)^{120} = \$203,037.20$

FVA of the 2nd annuity: $700 * [(1 + 0.08 / 12)^{120} - 1 / (0.08 / 12)] = \$128,062.20$

Total value at the end of 20 years: $\$203,037.20 + \$128,062.20 = \$331,099.40$

Example:

You deposit \$1000 at the end of the first year at 8%, \$1500 at the end of the second year at 8.5%, and \$2000 at the end of the third year at 9%. What will the value of this stream of cash flows be at the end of 4 years?

In this example, the cash flows as well as the interest rates are varying over time. The future value at the end of 4 years will be the sum of the future value of each cash flow. To calculate the future value of each cash flow, we need to consider, the interest rates over time:

$$\text{FV of cash flow at time 1: } 1000 (1 + r_1) (1 + r_2) (1 + r_3) = 1000 * (1.08) (1.085) (1.09) = \$1277.26$$

$$\text{FV of cash flow at time 2: } 1500 (1 + r_2) (1 + r_3) = 1500 * (1.085) (1.09) = \$1773.98$$

$$\text{FV of cash flow at time 3: } 2000 (1 + r_3) = 2000 * (1.09) = \$2180$$

$$\text{FV of the stream of cash flows: } \$1277.26 + \$1773.98 + \$2180 = \$5231.24$$

7.2.3 Present value

Future value is an easy concept to understand: it is the value at a future time of either a single cash flow at a time or a series of cash flows made over time. However, present value is a bit more complex to understand.

Consider the following situations:

- i) You want to have \$200,000 as down payment for a house, and you want to know how much you should invest today to get this amount in 2 years.
- ii) You estimate that you would retire at the age of 65 and would probably live until you reach the age of 85. During this period of 20 years, you would require \$12000 per month for your expenses. How much money should you have accumulated at age 65 that would provide this amount during your retirement?
- iii) You are thinking of making an investment that would pay \$500 after 6 months. How much would you be willing to invest today?
- iv) Machinery costs \$500,000, which would be used for producing a product. The cash flow from producing and selling this product over the next 5 years will be \$130,000 every year. Should you buy this machinery?

In all these situations, we need to have an idea of what the present value is:

In scenario 1, you need to find the amount of investment that needs to be made at the current time, which would provide \$200,000 after 2 years. You are interested in finding out the current worth of \$200,000 to be received after 2 years.

In scenario 2, you need to accumulate a certain amount of money by age 65 that would provide a monthly payment of \$12000 for 20 years. In this situation, you are trying to find the worth of monthly cash flow of \$12000 for 20 years at age 65.

In scenario 3, you will receive \$500 after 6 months if you invest certain amount today or need to know the current worth of \$500 to be received after 6 months.

In situation 4, you would receive cash flows of \$130,000 a year for the next 5 years and it costs you \$500,000 to produce these cash flows. The investment would be worth undertaking only if the current worth of these future cash flows is more than \$500,000.

In all these situations, we would like to know the current worth of some cash flow that would be received at a future time. This is known as the present value. Present value explains the current worth of future cash flows, whether it is a single cash flow or a stream of cash flows.

Calculation of Present Value

Let us consider a single cash flow first and explain how to calculate the present value. Suppose a bank promises to pay \$1100 after 1 year. The interest rate in the market is 10%. How much should you invest today?

If you invest \$P today, you will receive $P(1+r) = 1.1*P$ when $r = 10\%$. Since the amount you would receive is \$1100, we can calculate P as $1.1*P = 1100$ or $P = \$1000$. Thus, if you invest \$1000 today at 10% interest, you will receive \$1100 after one year. Present value of \$1100 that will be received after 1 year when interest rate is 10% is \$1000.

If future cash flow is \$A at end of 1 year: $P = A / (1 + r)$, what would the present value of \$A received after 2 years be?

If you invest \$P today for 2 years at interest rate of $r\%$, it will accumulate to A. However, using future value, we know A must equal $P(1+r)^2$.

Thus, $P(1+r)^2 = A$ or $P = A / (1+r)^2$

In a similar manner, we can calculate the present value of the amount A to be received after 3 years as:

$$P = A / (1+r)^3$$

In general, present value of a single cash flow to be received after t years can be found by:

$$P = A / (1+r)^t$$

Example:

An investment promises to pay \$5200 after 3 years. If the interest rate were 8%, how much would you invest today?

Since \$5200 will be received after 3 years, we need to calculate the present value of this cash flow:

$P = A / (1+r)^t = 5200 / (1.08)^3 = \4127.93 . This means that you would invest \$4127.93 to receive \$5200 after 3 years.

In this example, it is assumed that interest will be compounded once a year (annual compounding). However, the compounding can take place more than once a year. What will be the present value for different compounding schemes?

If semi-annual compounding is used, \$P invested today will grow to \$A after 2 years, or,

$$A = P (1 + r/2)^4 \text{ , or}$$

$$P = A / (1 + r/2)^4$$

In general, present value of a sum of \$A to be received after t years of semi-annual compounding is given as:

$$P = A / (1 + r/2)^{2*t}$$

This is like the way we calculated future value when different compounding periods were used. When different compounding periods are used, we need to use the periodic rate and number of periods to be calculated by multiplying the number of compounding periods by the number of years after which cash flows will be received.

The calculation of present value for different compounding periods is given below. In these, it is assumed that cash flow will be received after t years and stated interest rate is r%.

Compounding scheme	Present value
Annual	$A / (1 + r)^t$
Semi-annual	$A / (1 + r/2)^{2t}$
Quarterly	$A / (1 + r/4)^{4t}$
Monthly	$A / (1 + r/12)^{12t}$
Daily (360 days)	$A / (1 + r/360)^{360}$
Daily (365 days)	$A / (1 + r/365)^{365}$

Calculation of present value is known as discounting.

Example:

An investment provides a cash flow of \$2200 after 2 years. If the interest rate is 8%, what would be the current worth of this investment under:

- i) Annual compounding
- ii) Semi-annual compounding
- iii) Quarterly compounding
- iv) Monthly compounding
- v) Daily compounding

Since future value A = \$2200, r = 8 % and t = 2 years. PV is calculated as:

- i) Annual compounding = $A / (1 + r)^2 = 2200 / (1.08)^2 = \1886.15
- ii) Semi-annual compounding = $A / (1 + r/2)^4 = 2200 / (1.04)^4 = \1880.57

- iii) Quarterly compounding = $A / (1 + r/4)^8 = 2200 / (1.02)^8 = \1877.68
- iv) Monthly compounding = $A / (1 + r/12)^{12} = 2200 / (1 + .08/12)^{12} = \1875.71
- v) Daily compounding = $A / (1 + r/360)^{2*365} = 2200 / (1 + .08/360)^{730} = \1870.59
- vi) Daily compounding = $A / (1 + r/365)^{2*365} = 2200 / (1 + .08/365)^{730} = \1874.75

Example:

Assume that you would receive \$1000 after 42 days. If the interest rate is 8%, what would be the current worth of this cash flow assuming 360 days in a year.

$$PV = A / (1 + r)^t = 1000 / (1 + 0.08/360)^{42} = \$990.71$$

Present Value for a series of cash flows

So far, we have discussed how to calculate present value of a single cash flow that will be received at a future time. In many cases, there will be series of cash flows involved. For example, many people would require a certain amount of money every month during their retirement, and they would like to know how much they should accumulate at the time of retirement.

The series of cash flows could be of two types:

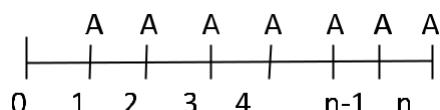
- i) The amount of cash flow will be equal every period and interval between periods will also be equal. When payment amount is the same, the series of cash flow is called an annuity.
- ii) The amount of cash flow will not be equal every period resulting in a stream of variable cash flows.

First, we will consider calculation of present value of annuities.

i) Present Value of Annuity

In an annuity, equal amount of cash will either be paid or received at the end of equal future intervals. The interest rate will remain constant throughout the period.

Assume that you have taken a loan, which requires you to pay \$A at the end of each year for the next n years and at the end of n years, the loan will be paid in full. The interest rate is r%. This can be illustrated in a timeline as follows:



The timeline indicates that the amount A will be paid at the end of each year for the next n years. To calculate the present value of this stream of cash flows, we need to calculate the present value of each of the payments at the current time.

PV of payment at the end of year 1 = $A / (1 + r)$

PV of payment at the end of year 1 = $A / (1 + r)^2$

PV of payment at the end of year n = $A / (1 + r)^n$

PV of stream of cash flows = $A / (1 + r) + A / (1 + r)^2 + A / (1 + r)^3 + \dots + A / (1 + r)^n$

PVA = $A [1 / (1 + r) + 1 / (1 + r)^2 + \dots + 1 / (1 + r)^n]$

$$PVA = A \sum_{t=1}^n 1 / (1 + r)^t$$

Multiplying PVA by $(1 + r)$ to get

PVA $(1 + r)$ = $A (1 + r) [1 / (1 + r) + 1 / (1 + r)^2 + \dots + 1 / (1 + r)^n]$

PVA $(1 + r)$ = $A [1 + 1 / (1 + r) + 1 / (1 + r)^2 + \dots + 1 / (1 + r)^{n-1}]$

Subtracting PVA from PVA $(1 + r)$, we get

PVA * r = $A [1 - 1 / (1 + r)^n]$ or

PVA = $A [1 - 1 / (1 + r)^n] / r$

Example:

Assume that you would receive \$1000 at the end of each year for the next 10 years. What will be the present value of this series of investment if the interest rate is 8%?

$$PV = A [(1 + r)^n - 1 / r] = 1000 \{[1 - 1 / (1.08)^{10}] / 0.08\} = \$6710.08$$

Thus, if \$6710.08 were invested at the current time, you would receive \$1000 at the end of each year for the next 10 years.

Example:

At age 64, you will retire at the end of the year and expect to live until 85 (or for 20 years). During this period, you estimate that you will need \$30,000 a year, which would be paid to you from the time you reach the age 65. How much money should you invest in order to accumulate this annuity given that the interest rate is 8%?

$$PVA = A [1 - 1 / (1 + r)^n] / r = 30000 [1 - 1 / (1.08)^{20}] / 0.08 = \$294,544.40$$

Example:

At age 64, you have accumulated \$300,000 and you have invested it in an annuity, which would make the payment at the end of each year for the next 20 years. If the interest rate is 8%, what will be the annuity payment every year?

$$300000 = A [1 - 1 / (1 + r)^n] / r = A [1 - 1 / (1.08)^{20}] / 0.08$$

$$A = \$30,555.66$$

In these examples, it was assumed that cash flow would occur at the end of each year. It is also possible that cash flows can occur multiple numbers of times a year. In that case, present value of the annuity will be calculated using the periodic rate and appropriate number of periods.

Example:

You would receive \$1000 at the end of every 6 months for the next 10 years. If the interest rate were 6%, how much would you invest today?

Since it is semi-annual compounding, periodic rate is $6 / 2 = 3\%$ and the number of periods is $2 * 10 = 20$.

$$PVA = 1000 [1 - 1 / (1.03)^{20}] / 0.03 = \$14877.47$$

You would invest \$14,877.47 today.

Example:

You would receive \$500 at the end of every 3 months for the next 10 years. If interest rate were 6%, how much would you invest today?

Since it is quarterly compounding, periodic rate is $6 / 4 = 1.5\%$ and number of periods is $4 * 10 = 40$. $PVA = 1000 [1 - 1 / (1.015)^{40}] / 0.015 = \14957.92

Example:

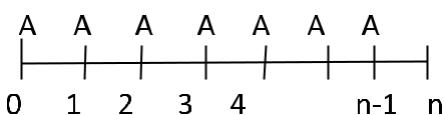
You would receive \$150 at the end of every month for the next 10 years at an interest rate of 6%. How much would you invest today?

Since it is monthly compounding, periodic rate is $6 / 12 = 0.5\%$ and number of periods is $10 * 12 = 120$.

$$PVA = 150 [1 - 1 / (1.005)^{120}] / 0.005 = \$13,511.02$$

ii) Present value of Annuity Due

In annuity due, the cash flow occurs at the beginning of the period.



Present value of this stream of cash flows is given by:

$$PVAD = A + A / (1 + r) + A / (1 + r)^2 + A / (1 + r)^3 + \dots + 1 / (1 + r)^{n-1}$$

$$\text{Or } PVAD = A \sum_{t=0}^{n-1} 1 / (1 + r)^t$$

If we divide PVAD by $(1 + r)$,

$$\begin{aligned} PVAD / (1 + r) &= A / (1 + r) + A / (1 + r)^2 + A / (1 + r)^3 + \dots + 1 / (1 + r)^n \\ &= PVA. \end{aligned}$$

Thus, $PVAD = PVA \cdot (1 + r)$

$$PVAD = A \left\{ \frac{1 - 1 / (1 + r)^n}{r} \right\} \cdot (1 + r)$$

Thus, one needs to multiply present value of annuity by $(1 + r)$ to get present value of annuity due.

Example:

At age 65, you will retire and expect to live for another 20 years. During this period, you estimate that you will need \$30000 a year, which would be paid to you starting from the current time and at the beginning of every year. How much money should have been invested to provide this cash flow if the interest rate is 8%. Assume annual compounding.

This example deals with annuity due as payment is made at the beginning of every year.

$$PVAD = A \left\{ \frac{1 - 1 / (1 + r)^n}{r} \right\} \cdot (1 + r) = 30000 \left\{ \frac{1 - 1 / (1.08)^{20}}{0.08} \right\} \cdot (1.08) =$$

\$318,108

iii) Perpetuity

A perpetuity is an annuity that pays a constant amount of \$A forever, or the cash flow of \$A will be received for a very long time. Perpetuity has applications in finance as preference shares and common shares have no maturity and dividend payments are received for a long time. Therefore, it is necessary for us to know how to calculate the present value of perpetuity. Since the present value of annuity for n years is given by:

$$PVA = \sum_{t=1}^n \frac{A}{(1 + r)^t}$$

As n becomes large, $\sum_{t=1}^n \frac{1}{(1 + r)^t}$ will be equal to $1/r$. Thus, present value of perpetuity is given by:

$$\text{PV of perpetuity} = A / r$$

Example:

A bond pays a coupon of 8% with face value of \$1000 and coupon is paid for a very long time. What will be the value of this bond if the discount rate is 10%

Since the coupon is paid for a long time, it can be considered as a perpetuity and the present value is calculated as

$$\text{Price} = \text{coupon amount} / r = \$80 / 0.10 = \$800$$

Example:

A stock is expected to pay a constant dividend of \$2 per share for a long time. If the appropriate discount rate is 12%, what will be its current value?

Since same amount of dividend of \$2 is paid over a long time, the value can be calculated by using the present value of perpetuity as:

$$P = \text{dividend} / r = \$2 / 0.12 = \$16.67$$

iv) Present Value with Varying Interest Rates

If the interest rate changes from period to period, the future cash flows need to be discounted at appropriate rate for each period to calculate the present value.

Example:

You plan to invest today in an investment that will provide you with cash flows of \$1000 at the end of 2 years with an interest rate of 8%. On the other hand, you can invest in another investment that pays interest of 7% in the first year and 9.2% in the second year and provides a cash flow of \$1000 at the end of two years. Which of these investments would you prefer?

The first investment pays \$1000 at the end of 2 years with constant interest rate of 8%. The PV of this investment is $1000 / (1.08)^2 = \$857.34$.

The second investment pays \$1000 at the end of 2 years but interest rates are different in these 2 years. This can be looked at in two steps.

If the investment pays \$1000 at the end of 2 years with interest rate of 9.2% in year 2, required investment would be $1000 / 1.092 = \$915.75$ at the end of year 1.

To have this amount of \$915.75 for investment at the end of year 1, you need to invest $915.75 / 1.07 = \$855.84$ at the current time as interest rate in year 1 is 7%.

Since investing with variable rate of interest costs \$855.84, it will be preferred over fixed rate of interest, which costs \$857.34.

This example shows that the present value with variable interest rate is calculated as:

$$PV = A / \{(1 + r_1)(1 + r_2)\}$$

In general, if cash flows occur over n periods, PV is calculated as:

$$PV = A / [(1 + r_1)(1 + r_2) \dots (1 + r_n)]$$

v) Present Value of Variable Stream of Cash Flows

If the stream of future cash flows is not constant every period but varies between periods, the present value is calculated by discounting each cash flow to the current period using the appropriate discount rate.

Example:

An investment pays \$500 at the end of each month for 10 years and then \$700 at the end of each month for the next 10 years. The interest rate is 8%. How much would you invest today?

This can be considered as two annuities:

Annuity 1 is \$700 at the end of each month for the next 20 years and Annuity 2 is -\$200 at the end of each month for the first 10 years.

$$\text{Value of investment} = \text{PV of annuity 1} + \text{PV of annuity 2}$$

$$\text{PV of annuity 1} = 700 [1 - 1 / (1 + 0.08 / 12)^{240}] / (0.08 / 12) = \$83,688.00$$

$$\text{PV of annuity 2} = -200 [1 - 1 / (1 + 0.08 / 12)^{120}] / (0.08 / 12) = -\$16,484.30$$

$$\text{Value of investment} = 83688.00 - 16484.30 = \$67,203.70$$

This can also be calculated as the sum of two annuities:

Annuity 1 is \$700 at the end of each month for years 11 to 20. The present value of this annuity using the PVA relationship will provide the value at the end of year 10 and this amount will then be discounted to the current time.

Annuity 2 is \$500 at the end of each month for years 1 to 10. This will provide present value at the current time.

$$\text{PV of annuity 1} = \{700 [1 - 1 / (1 + 0.08 / 12)^{120}] / (0.08 / 12)\} / (1 + 0.08 / 12)^{120} =$$

$$\$25,992.96 \text{ PV of annuity 2} = 500 [1 - 1 / (1 + 0.08 / 12)^{120}] / (0.08 / 12) = \$41,210.74 \text{ Value}$$

$$\text{of investment} = 25992.96 + 41210.74 = \$67,203.70$$

Example:

You are planning to purchase machinery that costs \$500,000, which would be used for producing a product. The cash flow from producing and selling this product over the next 5 years is estimated as:

Year	Cash flow
1	\$100,000
2	\$120,000
3	\$160,000
4	\$150,000
5	\$200,000

Should the machine be purchased if the interest rate is 8%?

When cash flows are variable, the present value is calculated as the sum of present values for each cash flow, or PV is calculated as:

$$PV = 100000 / 1.08 + 120000 / 1.08^2 + 160000 / 1.08^3 + 150000 / 1.08^4 + 200000 / 1.08^5 = \$568,857.50$$

This means the cash flows that will be received in the future is equivalent to investing \$568,857.50 today. However, investment needed currently is only \$500,000. Thus, we would receive the same cash flow, which is equivalent to \$568,857.50 for an investment of \$500,000. Therefore, you would buy the machinery.

Example:

You are planning to purchase machinery that costs \$500,000, which would be used for producing a product. The cash flows from producing and selling this product over the next 5 years is estimated as below, and it is estimated that the interest rates would also vary during this period:

Year	Cash flow	Interest rates
1	\$100,000	6.5%
2	\$120,000	7.5%
3	\$160,000	8%
4	\$150,000	8.2%
5	\$200,000	8.4%

Should the machine be purchased?

In this example, both cash flow and interest rate are variable. In calculating the present value, cash flow for any period should be discounted at appropriate interest rates prevailing during the periods before the cash flow occurs.

$$PV \text{ of cash flow in year 1} = 100,000 / 1.065 = \$93,896.71$$

$$PV \text{ of cash flow in year 2} = 120,000 / (1.065 * 1.075) = \$104,814.90$$

$$PV \text{ of cash flow in year 3} = 160,000 / (1.065 * 1.075 * 1.08) = \$129,401.20$$

$$PV \text{ of cash flow in year 4} = 150,000 / (1.065 * 1.075 * 1.08 * 1.082) = \$112,119.80$$

$$PV \text{ of cash flow in year 5} = 200,000 / (1.065 * 1.075 * 1.08 * 1.082 * 1.084) = \$137,908.70$$

$$\text{Total present value} = \$578,141.30$$

Since this present value of future cash flow is higher than investment needed, machinery should be purchased.

7.3 REQUIRED RATE OF RETURN

In calculating the present value and future value, one of the most important variables is the interest rate used for compounding and discounting. In all the examples, we assumed an interest rate. However, in practice, we need to estimate the appropriate rate at which the cash flows will be either compounded or discounted. In this section, we will discuss the nature of the appropriate rate that should be used in time value of money calculations.

Concept of return from investment

Whenever an individual makes an investment, he earns a rate of return on the investment. For example, if you buy gold at \$1800 per ounce today and sell it for \$2000 after 1 year, your return will be calculated as:

$$\text{Return from investment} = (\text{Selling price} - \text{Purchase price}) / \text{Purchase price}$$
$$= (2000 - 1800) / 1800 = 11.11\%$$

This means you have earned a return of 11.11% over the year. However, would you invest in gold that offers 11.11%?

Consider that there is another investment B that also costs \$1800 now but will provide a cash flow of \$2100 at the end of the year. The return-on-investment B can be calculated as:

$$\text{Return} = (2100 - 1800) / 1800 = 16.67\%$$

Which of these investments would you undertake?

It is obvious that an investment that provides a return of 16.67% is always preferable to 11.11%. However, this conclusion may not be true all the time. Let us consider the following situation:

At the end of the year, gold price can be either \$1900 or \$2100 with each occurring with a probability of 0.5. The expected value of gold is calculated as: $2100 * 0.5 + 1900 * 0.5 = \2000 .

Investment B can provide cash flow of either \$1700 or \$2500 with equal probability which provides the expected value of cash flow as: $1700 * 0.5 + 2500 * 0.5 = \2100 . Let us look at possible returns from investing in gold against the other investment.

Investing in gold will provide a return of either $(1900 - 1800) / 1800 = 5.55\%$ or $(2100 - 1800) / 1800 = 16.66\%$

Investment B will provide returns of either $(1700 - 1800) / 1800 = -5.55\%$ or $(2500 - 1800) / 1800 = 38.89\%$.

This shows that investing in gold can provide a return of either 5.55% or 16.66% whereas investment B provides a return of either -5.55% or 38.89%.

The return from investment B can either be negative or higher than what can be achieved through gold. Thus, the two investments are not comparable, and one cannot decide which investment to undertake based on the expected return, which is higher for investment B than investment in gold. Investing in gold is relatively less risky and therefore one needs to look at the risk of investment.

7.4 IMPACT OF RISK

How an investor reacts to risk of investment would depend on the investor's attitude towards risk. Based on the risk preference of investors, their attitude can be classified as:

- i) Risk aversion
- ii) Risk loving
- iii) Risk neutral

Before proceeding to discuss risk attitude, let us understand what is meant by risk in investment.

An investment is risk-free if the future cash flows that result from the investment is known for certain at the time of making the investment and if the future cash flows are not known with certainty at the time of making the investment, the investment is to be considered as risky.

For example, assume that you deposit \$1000 in a bank deposit for one year and the bank promises to give 6% interest on the deposit. In this case, the bank will pay \$1060 at the end of the year, which is known with certainty at the time of making the investment. Thus, the bank deposit can be considered as a risk-free investment. However, this investment can also be considered risky if we consider that banks may run into trouble and default on future payments.

Since one is not sure whether the bank will default or not, the investment would be considered risk even if the amount promised is known with certainty. In general, securities issued by the government are considered as risk-free because the government is not expected to default on the payments and the promised amount will be paid to the investor. The rate of return on the risk-free investment is known as the risk-free rate of return.

Risk Aversion

Consider the situation where a coin is tossed, and you are offered a win of \$1 if tail falls and a loss of \$1 if head falls. If the head falls, you would suffer a loss of \$1, which would reduce level of satisfaction or utility. On the other hand, if tail falls, you will win \$1, which would increase your satisfaction or utility. What is the relation between reduction in utility from losing \$1 and increase in utility from gaining \$1? This would depend on the individual's attitude towards risk. In case reduction in utility through loss is greater than the increase in utility through gain, the individual would not like to take the risk. If that is the case, the individuals are said to be risk averse.

A risk-averse individual, given a choice, would avoid taking risky investments and would even be willing to pay a certain amount of money to avoid situations where risk is present. The insurance contracts are designed to cater to such risk-averse persons.

Consider auto insurance: When you are driving on the road, you face the risk of getting into an accident, which can be your fault or the fault of others. In case you get into an accident, the damage could be extensive which may require a large outlay of cash. However, if you take auto insurance, the insurance company will bear the cost of damages and your contribution will be just the minimum amount specified in the contract. Thus, through insurance contracts, you transfer the risk to the insurance company by paying the insurance premium.

Suppose you want an individual to undertake risk when he is not willing to do so. In this case, you need to pay him something extra, which would motivate him to undertake the risk. In case a business issues a security with uncertain cash flows, it has to offer a return, which is higher than the risk-free rate. Otherwise, no risk-averse individual will be willing to invest in this risky security. The additional return above the risk-free rate is called the risk-premium for that security. If the risk faced is higher, the risk premium will also be higher. Thus, the return on a risky security will increase as the risk increases.

Risk aversion is not the same for all individuals and can vary with the wealth of the

individual. Risk Loving

Those individuals who like to take risk are called risk loving. For these people, an increase in utility from gain will be higher than the decrease in utility from loss. Gamblers are usually risk lovers; they do not mind losing a large amount of money but will be satisfied with winning sometime. For risk lovers, risk premium will be negative.

Risk Neutral

For risk neutral investors, the increase in utility from gain will exactly offset the decrease in utility from loss. Risk neutral people require no risk premium, and they will be satisfied with risk-free rate of return for all investments.

In general, investors are more of risk-averse and all risky financial investments would therefore require risk premium over the risk-free rate of return. This fact would be considered when they decide on whether to make an investment or not. While planning to undertake an investment, an individual would look at the risk of the investment and estimate the return that would be acceptable to him. This is known as the required rate of return. An individual would undertake an investment only if the return from the investment is at least equal to or higher than the required rate of return. The required rate of any investment can be written as:

$$\text{Required rate of return} = \text{Risk-free rate} + \text{Risk premium}$$

The required rate of return is also called the opportunity cost. Opportunity cost is the rate of return that is available on investments that have equivalent risk. Opportunity cost is the appropriate rate that should be used as the rate for compounding or discounting cash flows in time value of money calculations.

7.5 APPLICATIONS OF TIME VALUE OF MONEY

We discussed the concepts of present value and future value and how the required rate of return can be calculated to use for compounding or discounting rate. Next, we will describe the various applications of time value of money. There are many applications, and we will discuss the following areas:

- i) Valuation of real asset investments
- ii) Valuation of financial securities

7.5.1 Valuation of financial assets

Calculation of present value shows that the current worth of a stream of future cash flows. This means that if an investor is offered a future stream of cash flows, how much money he will be willing to invest today can be calculated by using the present value of that stream of cash flows. If the future cash flows are known with certainty at the current time of investment, the future cash flows are not risk-free and hence these future cash flows discounted at risk-free rate will provide the current value of the investment. In case the future cash flows are uncertain, we will calculate the expected value of these future cash flows and discount those cash flows at appropriate risk-adjusted rate to obtain the value. Since all financial securities provide a stream of cash flows, they can be valued as:

Asset Value = Present value of future cash flows

Example:

Consider a 91-day T-bill, which will pay \$100 after 91 days. If the yield on this T-bill is 4%, what will be the price of this T-bill?

Since the maturity is 91 days, it can be converted into years as $91/365 = 0.2495$ years. Thus, value of this T-bill will be PV of \$100 to be received after 0.2493 years at a discount rate of 4% will be

$$V = 100 / (1 + 0.04)^{0.2493} = \$99.027$$

Example:

Consider a 1-year T-bill that will pay \$100 after 1 year and is selling at a yield of 5%. What will be the current value?

Value can be calculated as PV of \$100 to be received after 1 year discounted at yield of 5% as

$$V = 100 / 1.05 = \$95.238$$

Example:

Consider a bank investment that will pay \$105 at the end of 1 year and 110 at the end of 2 years. If your required rate of return is 6%, how much would you invest today?

$$PV = 105/1.06 + 110/1.06^2 = \$196.956$$

Example:

Consider an investment that pays \$40 every 6 months for the next 3 years and pays \$1000 at the end of 3 years. What will be the value of this investment if discount rate is 8%?

Since payment is made every 6 months, we need to use semi-annual compounding using periodic rate of $8/2 = 4\%$.

$$V = 40/1.04 + 40/(1.04)^2 + 40/(1.04)^3 + 40/(1.04)^4 + 40/(1.04)^5 + 1040/(1.04)^6$$

$$V = \$1000$$

7.5.2 Valuation of Real Assets

Financial assets are traded in the financial market and these assets are valued such that the value reflects the present value of all future cash flow streams that the buyers of the financial security will receive. If the investor is planning to buy the financial security, he would buy the same only if the market price is at least equal to the present value of cash flows calculated. When the value equals the present value, the security is said to be priced. If the market price is more than the present value, the security is overvalued, and if it is less than the present value calculated, it is said to be undervalued. However, in an efficient market, the security is always expected to sell at its fair value, or the market price will always equal the present value of future cash flows. Irrespective of which investor is buying the security, all investors will pay the same price for the security.

Let us now consider a company that is planning to invest in machinery. This machinery will be used to produce a product that will be sold in the market. The product will provide cash flow at the end of every year for the next 5 years. How much would the company be willing to pay for this machinery? Assume the cash flows at the end of every year would be \$120,000 and the discount rate to be 10%.

The present value of these cash flows can be calculated as:

$$PV = 120000 / 1.1 + 120000 / 1.1^2 + 120000 / 1.1^3 + 120000 / 1.1^4 + 120000 / 1.1^5 = 120000 \{ [1 - 1 / (1.1)^5] / 0.1 \} = \$454,894.40$$

This example shows that it requires an investment of \$454,894.40 to realize cash flows of \$120,000 every year for the next 5 years if the opportunity cost is 10%.

Let us now consider another company that plans to buy the same machinery to use in a project that will provide a cash flow stream as follows:

Year	Cash flow
1	100,000
2	110,000
3	120,000
4	130,000
5	140,000

Assume that the opportunity cost for this company is 12%. Then the value of these cash flows can be calculated as

$$PV = 100000 / 1.12 + 110000 / 1.12^2 + 120000 / 1.12^3 + 130000 / 1.12^4 + 140000 / 1.12^5 = \$424,447.80$$

Thus, the company will be willing to pay \$424,447.80 to buy the machinery to realize the cash flows estimated.

This shows that the same machinery can generate different cash flows for different companies and different companies will therefore be willing to pay a different price for the same machinery. However, the seller of the machinery will not be aware of what the machinery will be used for, or what cash flows will be generated by use of machinery. His price will be based on the cost of producing the machinery and the profit margin required. Therefore, the buyers of the machinery will have to decide whether to buy the machinery at the given price.

If we consider buying a machinery as a project, then this problem of deciding whether to go ahead with the project or not is called project selection. Projects generally deal with long-term investment and because of that, it is also called the capital budgeting problem. In this course, our goal is to find a rule through which we can decide whether a project should be selected or not.

In our example, we saw that the present value of cash flows for the two companies is:

Company	PV of Cash Flows
A	\$454,894.40
B	\$424,447.80

Let us consider the case where the machinery is priced at \$400,000. Both companies will pay the price to buy this machinery and by using it, company A can generate cash flows that has a present value of \$454,894.40. In other words, company A requires an investment of \$454,894.40 to generate cash flows. However, the company needs to invest only \$400,000 in the machinery that will generate this cash flow. This means that the company saves \$54,894.40 by buying the machinery.

Similarly, company B needs to invest \$424,447.80 to generate the cash flow whereas it can buy the machinery at \$400,000 to generate the same cash flow. Company B saves \$45,447.80 by investing in the machinery.

Since both companies benefit by buying the machinery, both will buy the machinery.

Suppose machinery costs \$450,000. In this case, company A needs to invest only \$450,000 instead of \$454,894.40 to generate the same cash flows and save \$4894.40 by buying the machinery. However, company B will need to invest \$450,000 to generate the cash flows if they buy the machinery whereas the same cash flows can be generated with an investment of \$424,447.80. Thus, the company would lose (\$450,000 - \$424,47.80 = \$27,552.20) if the company buys this machine. This means that company A will buy the machine while company B will not buy the machine.

If the machinery costs \$460,000, both companies will lose if they buy the machinery as lower investment can provide the same cash flow. Thus, both companies will not buy the machine.

This analysis shows that a project will be chosen, only if the present value of cash flows is higher than the cost for the project, or, when PV of future cash flows – cost of project is positive. This different is called the net present value (NPV) of the project.

NPV = PV of future cash flows – Cost of project; and project will be undertaken if NPV is positive. In the example, the NPV for the two companies for different prices of machinery are shown as:

Company	Price		
	\$400,000	\$450,000	\$460,000
NPV for A	\$54,894.40	\$4,894.40	-\$5,105.60
NPV for B	\$24,447.80	-\$27,552.20	-\$37,552.20

Thus, company A will accept the project if the price of machinery is less than \$454,894.40 and company B will accept the project if the price of machinery is less than \$424,447.80.

7.6 INTERNAL RATE OF RETURN (IRR)

Whenever we make an investment that provides future cash flows, we would like to know the return we get from the investment. Since we require a certain rate of investment – which is k – we will undertake the investment only if the return from the investment is more than the required return, k . Thus, we need to calculate the return from the investment based on the cash flows. This return from the investment based on the cash flows is known as the internal rate of return (IRR) of the investment. The investment will be undertaken only if $IRR > k$.

How do we calculate IRR?

Consider the case where investment costs \$1000 and provides a cash flow of \$1100 after 1 year. The required rate of return is 9%. We can calculate the internal rate of return as the discount rate that makes the present value of future cash flows equal to the current investment, or,

$$1000 = 1100 / (1 + IRR) \text{ or } IRR = 10\%$$

Since $IRR > k$, the investment will be undertaken. Consider the case where investment costs \$1000 and provides cash flows of \$100 at end of year 1 and \$1100 at end of year 2. In this case, calculation of IRR is a bit complicated. To calculate IRR, we need to know what we do with the amount we receive at the end of year 1. Typically, it will be assumed that this cash flow will be reinvested for another year. Given that the amount will be reinvested, what rate should be used for investment? Typically, it is assumed that the interim cash flow will be reinvested at IRR. Under this assumption, we can find the value of the cash flow at the end of year 2 as:

$$FV \text{ of cash flow received at time 1 reinvested at IRR} = 100 (1 + IRR)$$

$$\text{Cash flow at the end of year 2} = 1100 + 100 (1 + IRR)$$

$$\text{Then } PV = 1100 / (1 + IRR)^2 + 100 / (1 + IRR)$$

Since future cash flows discounted at IRR results in current investment, $PV = \$1000$. We can calculate $IRR = 10\%$

Assume $IRR = 10\%$

Then cash flow at the end of year 2 = $100 * 1.1 + 1100 = \$1210$

Then PV of this cash flow can be calculated as: $1210 / (1.1) 2 = \$1000$

This shows that an assumption that the interim cash flows are reinvested at IRR will result in PV of future cash flows equal to the current investment, or NPV = 0.

Thus, IRR is the discount rate that makes NPV = 0, and the interim cash flows are invested at IRR. Let us calculate the IRR for the project of buying machinery by company A and company B when machinery price is \$450,000.

For machinery A:

$$450,000 = 120000 / (1 + \text{IRR}) + 120000 / (1 + \text{IRR})^2 + 120000 / (1 + \text{IRR})^3 + 120000 / (1 + \text{IRR})^4 + 120000 / (1 + \text{IRR})^5 \text{ or } \text{IRR} = 10.42\%$$

Since $k = 10\%$ and $\text{IRR} = 10.42\%$, the project will be undertaken.

For company B,

$$450,000 = 100000 / (1 + \text{IRR}) + 100000 / (1 + \text{IRR})^2 + 100000 / (1 + \text{IRR})^3 + 100000 / (1 + \text{IRR})^4 + 100000 / (1 + \text{IRR})^5 ; \text{IRR} = 9.81\%$$

Since $k = 12\%$ and $\text{IRR} = 9.81\%$, the project will not be undertaken.

How to calculate IRR?

IRR can be calculated using a trial-and-error method. In this method, a particular rate will be assumed and NPV will be calculated. If $\text{NPV} = 0$, then the IRR is the assumed rate. If, $\text{NPV} > 0$, for the assumed rate, this means that the assumed discount rate is lower, and we recalculate NPV by increasing the discount rate. If $\text{NPV} < 0$ for the assumed rate, this means that the assumed discount rate is higher, and we recalculate NPV by decreasing the discount rate. This process will continue until $\text{NPV} = 0$ and the discount rate at which $\text{NPV} = 0$ will be the IRR.

IRR can also be calculated using financial calculator or through a spreadsheet.

In this chapter, we saw how time value of money can be used for valuing mortgage loans, valuing financial securities and or project selection. In the next chapter, we will discuss the valuation of bonds.

Summary

Since the foundation of all financial planning rests on the Time Value of Money concept, you will need to establish a thorough understanding of this powerful concept if you are pursuing a career in this field.

Fundamentally, Time Value of Money is the concept that allows you to quantify goals in dollar amounts. There are several elements associated with this concept, including five “variables”:

- Present Value (PV),
- Future Value (FV),
- Number of Periods (N),
- Interest Rate (i), and
- Payment Amount (PMT).

In many cases, one of these variables will be equal to zero, so the problem will effectively have only four variables. You will always know the values of all but one of these four variables, and it is that missing value for which you will be solving.

By working with these variables using standard formulas available in a good financial calculator, or just plain old annuity tables, one can use known factors to determine unknown quantities.

Moreover, we learned the basic elements of the Time Value of Money include compounding, discounting, inflation, opportunity cost, amortization, and present and future values. You will also need to know how the concept of Time Value of Money is applied in various areas to conduct valuation of financial assets and projects.

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Introduction

Financial planning and investment are closely related, as proper financial planning helps one to choose the right investment options. The primary aim of investment planning is to derive the maximum amount of profit from various investments.

An investment is a commitment of funds to one or more assets that will be held over some future period, in the hope that it will generate more income. Assets could be tangible, like real estate property, or non-tangible, like securities. The financial planner should give his clients investment advice based on their financial goals and objectives. He should carefully assess his clients' financial resources before advising them on any options.

The investment planning process is extremely necessary in mapping out a financially sound future for your client. Proper investment planning helps people to realize their dreams and ambitions, for instance, securing necessary funds to start a new business venture.

A very crucial part of investment planning is determining the source of the client's money which would be used for the purpose of investment. The planner should also make sure that the money invested is done judiciously.

For clients to make effective investment decisions, they need to take certain steps which could ensure that decent profits will be gained from their investments.

In this part of the manual, we will first understand the basic concepts of investment, such as the objectives of investing, the inherent risks and how the risks can be minimized and avoided.

Then, we will examine the main types of investment assets, namely: debts, foreign exchange, property, and equities (shares). We will also examine the different strategies that may be utilized for investing, including diversification, direct and indirect investment, asset allocation, the concepts of value, risk and return, and the use of tax structures.

Learning Outcomes

1. Understand the reasons why clients want to invest;
2. Understand and explain 'risk' and 'return'; and the relationship between the two;
3. Discuss the differences between systematic and non-systematic risk; explain the theory behind diversification;
4. Understand the nature of bond, property, foreign exchange, and equity investments;
5. Understand the structure and instruments of the bond, foreign exchange, property, and equity markets;
6. Understand the roles of these investment types in an individual's portfolio;
7. Explain how diversification is achieved using indirect investing or managed funds; and
8. Describe the characteristics of managed investments.

Chapter 8 – Financial Markets and Investment

8.1 INVESTMENT OBJECTIVES

The options for investing are continually increasing, yet every single investment vehicle can be easily categorized according to fundamental characteristics - safety, income, and growth, which also correspond to types of investor objectives. While it is possible for an investor to have more than one of these objectives, the success of one must come at the expense of others. Other objectives of investing include tax minimization and liquidity.

Now, let's examine why people invest.

Safety

The most fundamental investment objective is: safety and security of the principal. The investor who has this objective is less concerned with return on investment than with return of investment. Safety is a strategy often associated with elderly people who want to make sure they don't outlive their money. The logic for this safety is clear. If they lose their money through foolish investments and they have no job from which to earn an income, it is unlikely that they will get a chance to replace their loss.

However, this objective is not just for elderly people. According to legendary investor Warren Buffet, there are two rules of investing. First, don't lose money. Second, don't forget Rule #1. The reasons are obvious. If you lose part of your capital, your remaining capital will need to work harder just to break even. Say if you lose 50%, you will need to make 100% just to break even.

Income / Yield

The safest investments are also the ones likely to have the lowest rates of income return, or yield. Investors must inevitably sacrifice a degree of safety if they want to increase their yields. There is an inverse relationship between safety and yield: as yield increases, safety generally goes down, and vice versa.

Most investors, even conservative-minded ones, want some level of income generation in their portfolio, just to keep up with the economy's rate of inflation. But maximizing income returns can be an overarching principle for a portfolio, especially for individuals who require a fixed sum from their investments every month. A retired person who requires a certain amount of money monthly is well served by holding reasonably safe assets that provide funds over and above other income-generating assets.

Growth of Capital

Our discussion has thus far been concerned only with safety and yield without considering the potential of other assets to provide a rate of return from an increase in value, often referred to as a capital gain.

Capital gains are entirely different from yields. A capital gain is only realized when the asset is sold for a price that is higher than the original purchase price. Selling at a lower price is referred to as a capital loss. Therefore, investors seeking capital gains are likely not those who need a fixed, on-going source of investment returns from their portfolio, but rather those who seek the possibility of longer-term growth.

It is also important to note that capital gains offer potential tax advantages by virtue of their lower tax rate in most jurisdictions. For example, in Singapore, there is no tax on capital gains. Funds that are garnered through share offerings, for example, are often geared towards the growth plans of small companies, a process that is extremely important for the growth of the overall economy. To encourage investments in these areas, governments choose to tax capital gains at a lower rate than income. Such a system serves to encourage entrepreneurship and the founding of new businesses that will help the economy grow.

Tax Minimization

An investor may pursue certain investments to adopt tax minimization as part of his or her investment strategy. A highly paid executive, for example, may want to seek investments with favourable tax treatment in order to lessen his or her overall income tax burden.

Liquidity

Many investments are rather illiquid, which means they cannot be sold immediately and converted into cash. Achieving a degree of liquidity, however, requires the sacrifice of a certain level of income or potential for capital gains.

8.2 INVESTMENT RISKS AND RETURNS

As we have seen, the advantage of one objective often comes at the expense of the other. The client who desires growth must often sacrifice some income and safety. Therefore, most portfolios are likely be guided by one pre-eminent objective, with all the other potential objectives occupying less significant weight in the overall scheme.

A fundamental investment concept is the trade-off between risk and return. The concept is based on the two realities of investment, and investment performance.

First, all investments carry some degree of risk – the reality that the client could lose some or all his money when he buys shares, bonds, unit trusts or other investments. Second, not only do different types of investments carry different levels of risk, but the more risk he assumes, the greater the investment return he is likely to achieve.

Risk comes in many forms, but when talking about the risk-return trade-off, the primary measure of risk is volatility, or the degree to which an investment fluctuates in price. Different asset categories are subject to different levels of price fluctuation. For instance, shares can fluctuate widely from one year to the next (or even from one day to the next), whereas the swing in bond prices tends to be less dramatic, and price fluctuations for money market or so-called capital preservation investments are even lower.

8.2.1 Measuring Investment Return

When someone invests, he hopes to get back more money than he put in. In other words, he wants a good return on his investment. People use the word “return” to mean different things:

- Some people think of their return as a sum of money. They say something like “I invested \$1,000 in the stock market and made \$50.” To them, \$50 is the return.
- Other people talk about their return as a rate. They say something like “I made 5% last year on a unit trust fund.” This is just another way of saying that this person made \$50 on \$1,000 (or 5%). The experts call it the rate of return (ROR) or investment return. It’s usually written as a percentage and indicates how fast the money grew over a year.

Example:

If an investor invests \$10,000 today in a particular unit trust fund and its worth rises to \$12,000 exactly 2 years later, what is his investment performance?

His investment performance can be described in several ways:

- His total gain is \$2,000
- His simple return on investment is 20%.
- His average annual compound rate of return is about 9.545%

Each of the above is an accurate description of performance, but the first two don’t take the period into consideration. In fact, if he reduces the interval to 6 months, the first two statements would remain true. However, the third statement would change to indicate an annualized rate of return of 44%.

This example involves a single transaction only. In many cases, securities are bought and sold more than once in an investment period. In such cases, multiple transactions must be considered when calculating performance.

Growth or loss of an investment can be described in any of the following ways, as in the previous example:

- Total Net Dollar Gain
- Simple Return on Investment (ROI %)
- Compound Rate of Return

Total Net Dollar Gain

Total Net Dollar Gain is simply the difference between the value of an investment today and the value of the investment at an earlier time less any net change due to transactions between the two dates.

For example, if the value of an investment was \$5,000 last year and is \$8,000 today and the investor purchased \$2,000 worth of the investment within the last year, the Total Net Dollar Gain for the 1-year period is \$1,000 = \$8000-\$5000 - \$2000.

Similarly, if the value of investment was \$5,000 last year and is \$6,000 today and the investor sold \$2,000 worth of the investment within the last year, the Total Net Dollar Gain for the 1-year period is \$3,000 = \$6000-\$5000 + \$2000.

Simple Return on Investment (ROI %)

Simple ROI % is calculated from the gain and the total amount invested. It disregards the dates when the investments were made.

$$\text{Simple ROI \%} = \frac{\text{Total Net Dollar Gain}}{\text{Total Buys}}$$

For example, if the investor bought \$10,000 worth of shares and sometime later the shares' worth increased to \$15,000, his ROI would be 50%. It would make no difference whether the elapsed time was 1 month or 5 years. The return on the investment would still be 50%. This method of measuring performance is not very useful when comparing investments with different investment length.

Compound Rate of Return

Compound Rate of Return expresses the net dollar gain or loss as an equivalent compound rate for a specified period. It is calculated from a cash flow analysis of the amounts invested and the associated transaction dates in the interval being considered. It represents the single average compound rate that when applied to the set of cash flows would make their combined forward value equal to the actual forward amount or current statement value.

Each cash flow is essentially a dollar amount that has a term in years to the end

date. Example: Cash flow example on \$1,000 investment

	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Total Value (year-beginning)</i>	\$1,000	\$1,100	\$1,155	\$1,215	
<i>Total Value (year-end)</i>	\$1,100	\$1,155	\$1,215	\$1,265	
<i>Dollar Return</i>	\$100	\$55	\$60	\$50	\$265
<i>Simple ROI</i>	10%	5.5%	6.0%	5.0%	26.5%
<i>Annual Return</i>	10%	5%	5.19%	4.12%	26.5%
<i>Compound Return</i>	6.05%	6.05%	6.05%	6.05%	26.5%

$$\text{Compound Rate of Return} = [(1 + r_1)(1 + r_2)(1 + r_3) \dots (1 + r_n)]^{1/n} - 1$$

where:

r = annual rate of return

n = no. of period

This method of measurement is the most useful when comparing investments with varied cash flows and durations. Compound Rate of Return is usually annualized. Compounding frequency can be annual (recommended), semi-annual or daily.

8.2.2 Measuring Investment Risks

For some investors, their biggest fear is that their investments will lose money. A safe investment is one that can avoid losses, even if this means the rewards are small. Other investors focus more on making their money grow. To them, an investment is safe if the risk of losing money is balanced with a fairly good chance for growth.

Of course, there is a big difference between taking risk in investment and speculating. Almost all investments have some risks. There are risks enveloped even if one does nothing. If a person put his money in a savings account, for example, it may not grow fast enough for him to reach his goals. He may even fall behind if the cost of living goes up faster than his money grows.

Investment risk means that an investor cannot be certain how much he will gain when he makes an investment. It is also possible that he may lose money. Each person has a different attitude towards how much risk they are willing to take. This is called risk tolerance. There are some tools that could help us measure how risky an investment is.

For example, to evaluate an investment risk, we can look at:

- How often the investment price moves up and down.
- How much the investment price changes compared to the rest of the market.
- How widely the investment swings in price.

Let's look at some common risk measures.

Volatility and Standard Deviation

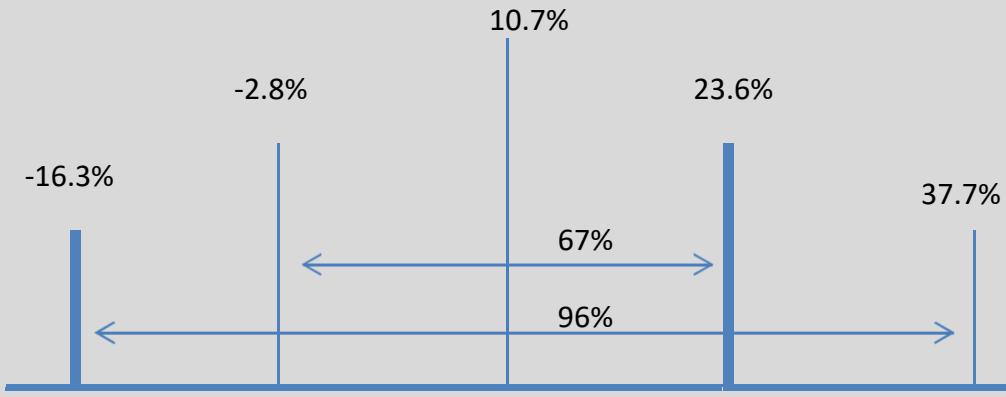
Volatility is often used to quantify risk. It is important for planners to consider how much risk their clients are being subjected to when giving advice on investments.

Volatility can be measured using standard deviation, a statistical measure of dispersion around a central tendency. (Please refer to Chapter 4 for more detailed explanation on the Standard Deviation.)

Example

During an arbitrary 15-year period, the average annualized return of the Straits Times Index (STI) was 10.7% and the standard deviation was 13.5%. What does the standard deviation tell you about the distribution of STI returns?

The 10.7% average annual return tells what happened for the whole period, but it doesn't say what happened along the way. Given the standard deviation of the STI for that same period was 13.5%, it implies that based on a normal distribution of returns, there is 67% chance that the annual return for one-year falls within one standard deviation of the mean and 95% chance that it falls within two standard deviations of the mean.



Thus, an investor in the STI could expect 67% of the time the annual return at any given point during this time to be within $10.7\% \pm 13.5\%$ and 95% of the time the annual return is within $10.7\% \pm 27.0\%$.

Beta

Another risk measure is beta. If we are investing in shares, we can use beta to measure the share's volatility, the degree to which its price fluctuates in relation to the overall market. In other words, it gives a sense of the share's market risk compared to the market. Beta is used also to compare a share's market risk to that of other shares.

Beta is calculated using regression analysis. A beta of 1 indicates that the share's price tends to move with the market. A beta greater than 1 indicates that the share's price tends to be more volatile than the market, and a beta less than 1 means it tends to be less volatile than the market, which is represented by a certain index.

Essentially, beta expresses the fundamental trade-off between minimizing risk and maximizing return.

Example

Benta Bhd is a company listed on Bursa Malaysia Securities and the shares of the company have a beta of 2. What does beta of 2 mean?

This means the stock of the company is two times as volatile as the overall market. Assume that we expect FTSE Bursa Malaysia KLCI to provide a return of 10%, we would then expect the shares of Benta Bhd to have a 20% return. On the other hand, if the market were to decline and provide a return of -6%, investors in the company's shares could expect a return of -12% (a loss of 12%).

Beta is a measure of systematic risk, which is the risk that the market faces. The market index (for example, FTSE Bursa Malaysia KLCI) to which the shares of Benta Bhd is compared is affected by the risks of all stocks in the market. As beta is calculated by comparing the volatility of Benta Bhd's shares to FTSE Bursa Malaysia KLCI, it only considers the effects of market-wide risks on the company's shares.

The other risks the company faces are firm-specific risks, which are not fully reflected in the beta measure. Therefore, while beta gives investors a good idea about how changes in the market affect the stock, it does not look at all the risks the company faces i.e., the unsystematic risk.

Example of unsystematic risk is company- or industry-specific risk that is inherent in each investment. The amount of unsystematic risk can be reduced through appropriate diversification.

8.2.3 Types of Investment Risk

Now that we have understood the fundamental types of risks, let's look at some specific terms of risks.

Credit or Default Risk

Credit risk is the risk that a company or individual will be unable to pay the contractual interest or principal on its debt obligations. This type of risk is of particular concern to investors who hold bonds in their portfolios.

Government bonds typically have the least amount of default risk and the lowest returns, while corporate bonds tend to have higher default risk but also higher returns. Bonds with a low chance of default are investment grade, while bonds with high chances are junk bonds.

Country Risk

Country risk refers to the risk that a country would not be able to honour its financial commitments. When a country defaults on its obligations, this can harm the performance of all other financial instruments in that country as well as other countries it has relations with.

Country risk applies to shares, bonds, unit trust funds, options and futures that are issued within a particular country. This type of risk is most often seen in emerging markets or countries with severe deficits.

Foreign-Exchange Risk

When investing in foreign countries you must consider the fact that currency exchange rates can change the price of the asset as well.

Foreign-exchange risk applies to all financial instruments that are in a currency other than your domestic currency. As an example, if you are a resident of Singapore and invest in some Australian shares in Australian dollars, even if the share value appreciates, you may lose money if the Australian dollar depreciates in relation to the Singapore dollar.

Interest Rate Risk

Interest rate risk is the risk that an investment's value will change because of a change in interest rates. This risk affects the value of bonds more directly than shares.

Political Risk

Political risk represents the financial risk that a country's government will suddenly change its policies. This is a major reason why developing countries lack foreign investment.

Market Risk

This is the most familiar of all risks. Also referred to as volatility, market risk is the day-to-day fluctuation in prices. Market risk applies mainly to shares and options. Shares tend to perform well during a bull market and poorly during a bear market - volatility is not so much a cause but an effect of market forces.

Volatility is a measure of risk because it refers to the behaviour, or "temperament", of your investment rather than the reason for this behaviour. Because market movement is the reason why people can make money from shares, volatility is essential for returns, and the more unstable the investment the more chance there is that it will experience a dramatic change in either direction.

8.3 DIVERSIFICATION AND PORTFOLIO INVESTMENT

Diversification is a risk management technique that mixes a wide variety of investments within a portfolio. The rationale behind this technique is that a portfolio of different kinds of investments will, on average, yield a better risk-return characteristic than any individual investment found within the portfolio.

Diversification strives to smooth out unsystematic risk events in a portfolio so that the positive performance of some investments will neutralize the negative performance of others. Therefore, the benefits of diversification will hold only if the securities in the portfolio are not perfectly correlated.

Diversification

Studies and mathematical models have shown that maintaining a well-diversified portfolio, for example, stocks of up to 20 and 30 companies, will yield the most cost-effective level of risk reduction. Investing in more securities will still yield further diversification benefits, albeit at a drastically smaller rate.

Further diversification benefits can be gained by investing in foreign securities because they tend to be less closely correlated with domestic investments.

For example, an economic downturn in the U.S. economy may not affect Singapore's economy in the same way; therefore, having investments in Singapore would allow an investor to have a small cushion of protection against losses due to an American economic downturn. However, the markets of the world are increasingly connected, and the cushion of protection is only getting smaller and smaller.

Most retail investors have a limited investment budget and may find it difficult to create an adequately diversified portfolio. This explains why unit trust funds have been increasing in popularity. Buying into unit trust funds can provide investors with an inexpensive source of diversification.

Asset Allocation

An important first step in building a well-diversified investment portfolio is to apply a process called asset allocation. Asset allocation is the process of determining how your client's investment portfolio should be invested among the different asset classes, based on your client's risk tolerance and his financial goals. It involves diversifying or spreading his investments across these asset classes to maximize potential returns while minimizing risk. The main asset classes are stocks, bonds, cash and equivalents. Each of these asset classes has different levels of risk and return, and they behave differently over time.

There is no simple formula to find the right asset allocation for every individual. However, the consensus among most financial professionals is that asset allocation is one of the most important decisions that investors make.

8.4 FINANCIAL MARKETS FOR DIRECT INVESTMENT

The Singapore financial markets offer a diverse array of investment products. The type of products chosen by an investor to invest his capital depends largely on his financial goals, time frame, and amount of capital available. Direct investment refers to the approach whereby an investor invests directly in financial assets equity securities and debt securities. We shall now look at the various markets which an individual can have direct access to.

8.4.1 Equity Securities

Equity is viewed by the market as an ownership "share" in the revenue stream of a company's income once all prior obligations and debts have been satisfied. The "share" price is the relative value given to the company's earning potential based on several factors. These include general economic conditions, both in the industry and in the overall economy, earnings projection, projected corporate growth, corporate stage of development, and financial ratio analysis. Shares that are traded through a centralized exchange are commonly known as public-listed shares. Shares that do not trade on a centralized exchange are traded over the counter (OTC).

Share prices are set by the trading between buyers and sellers. At any point, the price of a share reflects the price at which sellers are willing to sell, and buyers are willing to buy. Ultimately this reflects the expectation of interest rates and the prospects for the growth of the underlying company. There are many theories on stock price valuation, but we will not cover them in this book.

Generally, the structure of equity is that a "share" of the company represents the right to have a share in the current market value of the firm; secondary to this is the potential for dividend income. There are various classes of equity for the individual investor to consider. The three major types of shares are ordinary shares, preference shares, and warrants.

Ordinary Shares

Ordinary shareholders participate in the earnings stream of the company through dividends paid and capital gains made on a per share basis.

Owners of ordinary shares are responsible for the election of the Board of Directors, appointment of Senior Officers, the selection of an auditor for the corporate financial statements, dividend policy and other matters of corporate governance. This may also be done on a proxy basis, whereby a third party may be ceded the shareholder's right to vote by the shareholder.

The responsibilities associated with ordinary shares mean the investor participates to a greater extent in the fortunes of the firm. Capital gains, through the increase in market price of the firm's shares, accrue to a greater extent to the holder of ordinary shares than to the holder of preference shares.

Ordinary shareholders also have a couple of significant rights should the business invested in be wound down: limited liability to the creditors of the firm and a residual claim on any assets or income derived once all prior claims (bondholders, creditors, etc.) have been satisfied.

Preference Shares

Preference shares are legally shares, but they are very different from ordinary shares.

- Dividends on preference shares must be paid before dividends on ordinary shares.
- Dividends on ordinary shares may not be paid unless the fixed dividend on preference shares is paid first.
- Dividends are fixed like bond coupons, although there are usually provisions to not pay, or delay payments.
- Preference shareholders have a higher priority if a company is liquidated than ordinary shareholders, although a lower priority than debt holders.
- In the case of cumulative preference shares, if the dividend is not paid in full, the unpaid amount is added to the next dividend due.
- Preference dividends are fixed, so they do not participate in increases (or decreases) in profits as ordinary shareholders do.

The effect of these rules is to make the income stream from preference shares more like that from debt than that from ordinary shares. Most importantly, fixed dividends are like interest payments. However, they are legally shares and are subject to the same tax treatment.

However, with the added security offered by the guaranteed dividend stream, the holder of preference shares gives up the right to vote on issues related to corporate governance. Therefore, the preferred holder has little input into corporate policy.

Warrants

A warrant is a long-dated option which allows the owner to participate in the capital gains (losses) of a firm without buying the ordinary shares. In effect, the holder of a warrant has a leveraged play on the corporate ordinary shares.

As a form of option, a warrant has an exercise price and an expiry date. The exercise price is the price at which the holder may convert the warrant into ordinary shares of the issuer. The expiry date is the last date on which the warrant may be converted into ordinary shares.

Given that a warrant is generally issued to reduce the cost of a debt issuer, the expiry date is usually more than two years from issuance. This allows warrants to be traded separately from the bond with which they were issued, thereby providing the investor with a long-dated option on a firm's ordinary shares.

There is a drawback to warrants for those investors concerned with income. As an option, a warrant does not pay a dividend, and is subject to a certain amount of price compression as the underlying share approaches or surpasses the exercise price. This is only a factor if the investor is purchasing the warrants when the ordinary share is trading near the exercise price.

Warrant holders have no voting rights until the warrants are converted into ordinary shares. Upon conversion, an active role may be taken in corporate governance. If the warrants provide for conversion into preference shares, it is unlikely the holder will gain any influence into corporate governance upon conversion.

The Stock Exchange

The stock market is where the shares in companies are bought and sold, providing companies the options to access capital, and investors the opportunities to own a share of the company and enjoy potential gains from the company's future performance. It offers people the opportunity to generate a separate income stream in addition to that from their daily jobs, or income streams which are superior to those from traditional savings deposits.

A stock exchange is an institution, organization, or association which hosts a market where shares and some other financial instruments are traded. Buyers and sellers come together to trade during specific hours on business days and the exchange imposes rules and regulations on the firms and brokers that are involved in trading.

8.4.2 Private Equity

Private share or private equity is an asset class consisting of equity securities in operating companies that are not publicly traded on a stock exchange. Investments in private equity most often involve either an investment of capital into an operating company or the acquisition of an operating company. Capital for private equity is raised primarily from institutional investors. There is a wide array of types and styles of private equity, and the term 'private equity' has different connotations in different countries.

Among the most common investment strategies in private equity include leveraged buyouts, venture capital, growth capital, distressed investments, and mezzanine capital. In a typical leveraged buyout transaction, the private equity firm buys majority control of an existing or mature firm. This is distinct from venture capital or growth capital investments, where the private equity firms typically invest in young or emerging companies, and rarely obtain majority control.

Considerations for investing in private equity relative to other forms of investment include:

- Substantial entry requirements. Most private equity investments require significant initial commitment (usually upwards of millions of dollars).
- Limited liquidity. Private equity is a form of “illiquid” investments. Once invested, it is very difficult to achieve liquidity before the investments can be realized. Normally, an investor’s capital is locked-up in long-term investments.
- Investment Control. Nearly all investors in private equity are passive and rely on the manager to make investments and generate liquidity from those investments.
- Unfunded Commitments. An investor’s commitment to private equity investment is drawn over time. If a private equity firm cannot find suitable investment opportunities, it will not draw on an investor’s commitment and an investor may potentially invest less than expected or committed.
- Investment Risks. Given the risks associated with private equity investments, an investor can lose all of his investment. The risk of loss of capital is typically higher in venture capital, which invests in companies during the earliest phases of their development or in companies with high amounts of financial leverage. By their nature, investments in privately held companies tend to be riskier than investments in publicly traded companies.
- High returns. Consistent with the risks outlined above, private equity can provide high returns, with the best private equity managers significantly outperforming the public markets.
- For the above-mentioned reasons, private equity investment is for those who can afford to have capital locked in for long periods of time and who are able to risk losing significant amounts of money. These disadvantages are offset by the potential benefits of annual returns which can range up to 30% for successful investments.

8.4.3 Fixed Income Securities

Fixed income instruments are debt obligations that enable the issuing party to raise funds by promising to repay a lender in accordance with the terms of a contract. These instruments are a way for markets and participants to easily transfer the ownership of debt obligations from one party to another.

Debt obligation transferability increases liquidity and gives creditors a means of trading debt obligations on the market. Without debt instruments acting to facilitate trading, debt is an obligation from one party to another. When a debt instrument is used as a medium to facilitate debt trading, debt obligations can be moved from one party to another quickly and efficiently.

Types of debt instruments include notes, bonds, commercial papers, and negotiable certificate deposits. Both commercial papers and negotiable certificate of deposits can also be considered as money market instruments. In this manual we will elaborate on bonds, but most of the concepts are applicable to other debt instruments as well.

Bonds

A bond is a debt security, in which the authorized issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay interest (the coupon) and/or to repay the principal later, termed maturity. It is a formal contract to repay borrowed money with interest at fixed intervals.

Thus, a bond is like a loan: the issuer is the borrower, the bondholder is the lender, and the coupon is the interest. Bonds provide the borrower with external funds to finance long-term investments, or, in the case of government bonds, to finance current expenditure.

The bond market (also known as the debt, credit, or fixed income market) is a financial market where participants buy and sell debt securities, usually in the form of bonds.

Traditionally, the bond market was largely dominated by the United States, but today the US is about 44% of the market. As of 2009, the size of the worldwide bond market (total debt outstanding) is an estimated \$82.2 trillion, of which the size of the outstanding U.S. bond market debt was \$31.2 trillion according to Bank for International Settlements (BIS).

Nearly all the \$822 billion average daily trading volume in the U.S. bond market takes place between broker-dealers and large institutions in a decentralized, over the counter (OTC) market. However, a small number of bonds, primarily corporate, are listed on exchanges.

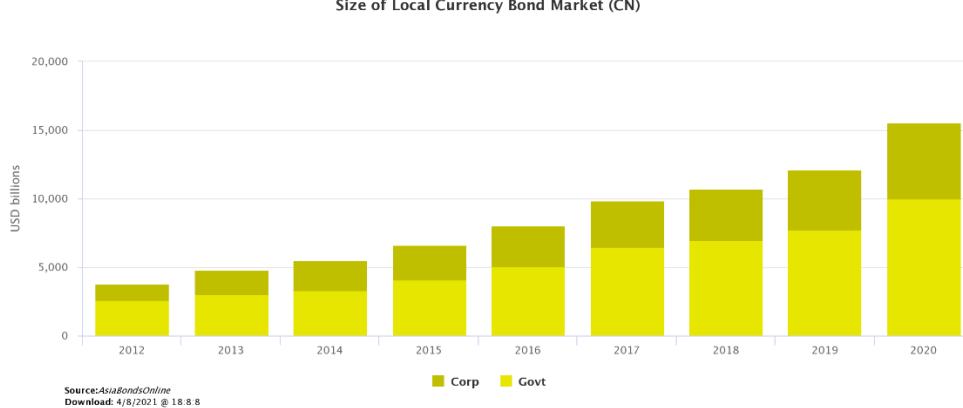
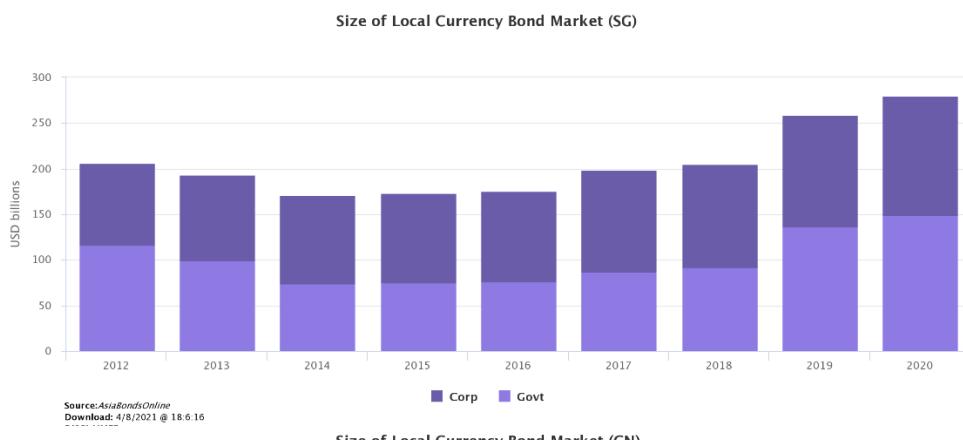
The Singapore bond market has developed into an important, open capital market in Asia. It has matured considerably in size, depth, and liquidity. Sovereign bonds and statutory board bonds are the pillars of the bond market which blossomed despite the government's strong fiscal position that does not require deficit financing. Singapore Government Securities (SGS)—comprising SGS bills and bonds—are issued to stimulate market activity and to provide a benchmark for corporate issues.

Statutory board papers, issued by autonomous government agencies, are considered among the most liquid debt instruments on the Singapore corporate bond market. Special Purpose Vehicles (SPVs) are the major issuers of corporate debt securities in the market, with structured debt comprising a large portion of SGD-denominated issues. Structured products include equity-linked notes, convertible bonds, credit-linked notes, and asset securitization transactions.

To attract foreign investors, the MAS began internationalizing the SGD in 1998, with foreign entities allowed to issue SGD-denominated bonds. Singapore's debt market has grown to become an important source of financing for local and foreign corporations, international organizations, and governments.

Islamic finance is growing in importance as well. In 2005, Singapore was accepted as a full member of the Islamic Financial Services Board (IFSB), an international body based in Malaysia that defines regulatory and supervisory standards governing Islamic financial services. In January 2009, Singapore launched its first Islamic bond program worth SGD200 million.

According to the Asian Development Bank, as of June 2012, the size of the Singapore bond market is US\$216.71, and that of Malaysia is US\$294.0



Source: AsianBondsOnline

References to the “bond market” usually refer to the government bond market, because of its size, liquidity, lack of credit risk and, therefore, sensitivity to interest rates. Because of the inverse relationship between bond valuation and interest rates, the bond market is often used to indicate changes in interest rates or the shape of the yield curve.

Bonds are issued by public authorities, credit institutions, companies, and supranational institutions in the primary markets.

The most common process of issuing bonds is through underwriting. In underwriting, one or more financial institutions such as investment banks or stockbroking companies, forming a syndicate, buy an entire issue of bonds from an issuer and re-sell them to investors. These institutions take the risk of being unable to sell the issue to end investors. However, government bonds are instead typically auctioned.

The most important features of a bond are:

- Nominal, Principal, or Face Amount — the amount on which the issuer pays interest, and which has to be repaid at the end.
- Issue price — the price at which investors buy the bonds when they are first issued, which will typically be approximately equal to the nominal amount. The net proceeds that the issuer receives are thus the issue price, less issuance fees.

- Maturity date — the date on which the issuer must repay the nominal amount. If all payments have been made, the issuer has no more obligations to the bondholders after the maturity date. The length of time until the maturity date is often referred to as the term or tenure or maturity of a bond. The maturity can be any length of time, although debt securities with a term of less than one year are generally designated money market instruments rather than bonds. Most bonds have a term of up to thirty years. Some bonds have been issued with maturities of up to one hundred years, and some even do not mature at all.
- Coupon rate — the interest rate that the issuer pays to the bondholders. Usually, this rate is fixed throughout the life of the bond. It can also vary with a money market index, such as Malaysia Interbank Offered Rate (LIBOR), or it can be even more exotic. The name coupon originates from the fact that in the past, physical bonds were issued which have coupons attached to them.
- Coupon dates — the dates on which the issuer pays the coupon to the bondholders. In most other countries, most bonds are semi-annual, which means that they pay a coupon every six months.
- Yield-to-Maturity — the expected return from a bond if held by the investor until maturity.
- Callability — some bonds give the issuer the right to repay the bond before the maturity date on the call dates. These bonds are referred to as callable bonds. Most callable bonds allow the issuer to repay the bond at par. With some bonds, the issuer must pay a premium, the so-called call premium. This is mainly the case for high-yield bonds.
- Putability — some bonds give the holder the right to force the issuer to repay the bond before the maturity date on the put dates.
- Sinking fund — sinking fund provision of the corporate bond indenture requires a certain portion of the issue to be retired periodically. The entire bond issue can be liquidated by the maturity date. If that is not the case, then the remainder is called balloon maturity. Issuers may either pay to trustees, which in turn call randomly selected bonds in the issue, or, alternatively, purchase bonds in open market, then return them to trustees.
- Convertibility — convertible bond allows a bondholder to convert a bond into a number of shares of the issuer's ordinary shares according to certain terms and conditions.

Types of Bonds

Bonds can come on various types and forms and some of these types and forms are listed below:

- Fixed rate bonds have a coupon rate that remains constant throughout the life of the bond.
- Floating rate notes (FRNs) have a coupon rate that is linked to an index. Common indices include: money market indices, such as SOR or Euro Interbank Offered Rate (Euribor), and CPI (the Consumer Price Index). Coupon examples: three-month SOR + 0.20%, or twelve month CPI + 1.50%.

- Zero coupon bonds do not pay any interest. They are issued at a substantial discount to par value. The bondholder receives the full principal amount on the redemption date. Zero coupon bonds may be created from fixed rate bonds separating or “stripping off” the coupons from the principal. In other words, the separated coupons and the final principal payment of the bond are allowed to trade independently.
- Inflation-linked bonds are those bonds whose principal amount, and the interest payments are indexed to inflation.
- The interest rate is normally lower than for fixed rate bonds with a comparable maturity. However, as the principal amount grows, the payments increase with inflation.
- Asset-backed securities are bonds whose interest and principal payments are backed by underlying cash flows from other assets. Examples of asset-backed securities are mortgage-backed securities (MBS), collateralized mortgage obligations (CMO) and collateralized debt obligations (CDO).
- Subordinated bonds are those that have a lower priority than other bonds of the issuer in case of liquidation. In case of bankruptcy, there is a hierarchy of creditors. First the liquidator is paid, then government taxes, etc. The first bondholders in line to be paid are those holding what is called senior bonds. After they have been paid, the subordinated bondholders are paid. As a result, the risk is higher. Therefore, subordinated bonds usually have a lower credit rating than senior bonds. The main examples of subordinated bonds can be found in bonds issued by banks, and asset-backed securities. The latter are often issued in tranches. The senior tranches get paid back first, the subordinated tranches later.

Bonds Issued in Foreign Currencies

Some companies, banks, governments, and other sovereign entities may decide to issue bonds in foreign currencies as it may appear to be more stable and predictable than their domestic currency. Issuing bonds denominated in foreign currencies also gives issuers the ability to access investment capital available in foreign markets. The proceeds from the issuance of these bonds can be used by companies to break into foreign markets or can be converted into the issuing company's local currency to be used on existing operations. Foreign issuer bonds can also be used to hedge foreign exchange rate risk.

Some of these bonds are called by their nicknames, such as:

- **Eurodollar bond**, a U.S. Dollar-denominated bond issued by a non-U.S. entity outside the U.S.
- **Kangaroo bond**, an Australian Dollar-denominated bond issued by a non-Australian entity in the Australian market
- **Maple bond**, a Canadian Dollar-denominated bond issued by a non-Canadian entity in the Canadian market
- **Samurai bond**, a Japanese Yen-denominated bond issued by a non-Japanese entity in the Japanese market

- **Yankee bond**, a U.S. Dollar-denominated bond issued by a non-US entity in the US market
- **Bulldog bond**, a Pound Sterling-denominated bond issued in London by a foreign institution or government
- **Kimchi bond**, a non-Korean Won-denominated bond issued by a non-Korean entity in the Korean market.
- **Panda bond**, a Chinese Rimini-denominated bond issued by a non-China entity in the People's Republic of China market.

Valuing bonds

The interest rate that the issuer of a bond must pay is influenced by a variety of factors, such as:

- current market interest rates,
- the length of the term, and
- the creditworthiness of the issuer.

These factors are likely to change over time, so the market price of a bond will vary after it is issued. This price is expressed as a percentage of nominal value. Bonds are not necessarily issued at par (100% of face value, corresponding to a price of 100), but bond prices converge to par when they approach maturity (if the market expects the maturity payment to be made in full and on time) as this is the price the issuer will pay to redeem the bond. At other times, prices can be above par (bond is priced at greater than 100), which is called trading at a premium, or below par (bond is priced at less than 100), which is called trading at a discount.

The market price of a bond is the present value of all expected future interest and principal payments of the bond discounted at the bond's yield-to-maturity, or rate of return. That relationship defines the yield-to-maturity on the bond, which represents the current market interest rate for bonds with similar characteristics.

The yield and price of a bond are inversely related so that when market interest rates rise, bond prices fall and vice versa.

Example:

For example, what is the price of a 5-year bond with a coupon of 6%, if the interest rate (or yield-to-maturity) is 8%?



If Interest rate / YTM = 8%,

Price = \$880.22

By discounting the cash flows from the bond using the discount rate of 8%, the present value (or the price of the bond) is \$880.22.

If the interest rate increases, the price of the bond will fall. For example, if the interest rate is 10%, the price of the bond will be \$810.46.



If Interest rate / YTM = 10%,

Price = \$810.46

The interest rate adjusted for (divided by) the current price of the bond is called the current yield (this is the nominal yield multiplied by the par value and divided by the price). Using the same example as the above, the current yield will be as follows:

$$\begin{aligned} \text{Current Yield} &= \frac{\text{Nominal Yield} \times \text{Par Value}}{\text{Price of the Bond}} \\ &= \frac{5\% \times \$1,000}{\$810.46} \\ &= 6.17\% \end{aligned}$$

The relationship between yield and maturity for otherwise identical bonds is called a yield curve.

The yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates. The most frequently reported yield curve in Singapore compares the various issues of Singapore Government Securities. This yield curve is used as a benchmark for other debts in the market, such as corporate bond rates or bank lending rates. The curve is also used to predict changes in economic output and growth.

End of Period	SOI Prices and Yields - Benchmark Issues				
	Average Buying Rates of Govt Securities Dealers 3-Year Bond Yield	Average Buying Rates of Govt Securities Dealers 5-Year Bond Yield	Average Buying Rates of Govt Securities Dealers 10-Year Bond Yield	Average Buying Rates of Govt Securities Dealers 15-Year Bond Yield	Average Buying Rates of Govt Securities Dealers 20-Year Bond Yield
2012	0.28	0.31	1.30	1.91	2.09
2013	0.37	1.08	2.56	2.98	3.05
2014	0.64	1.60	2.28	2.62	2.78
2015	1.87	1.90	2.60	2.96	2.94
2016	1.31	1.85	2.47	2.74	2.73
2017	1.65	1.68	2.00	2.36	2.38
2018	1.88	1.90	2.04	2.27	2.32
2019	1.53	1.56	1.74	1.86	1.91
2020	0.29	0.46	0.84	1.11	1.21
2021	0.36	0.75	1.31	1.60	1.66

<https://reserves.msci.com/aggregatedata/AllandBenchmarkPricesAndYields.aspx>

Bond Markets

Bond markets, unlike equity markets, often do not have a centralized exchange or trading system. Rather, in most developed bond markets such as the U.S., Japan and Western Europe, bonds trade in decentralized, dealer-based over-the-counter markets. In such a market, market liquidity is provided by dealers and other market participants committing risk capital to trading activity.

In the bond market, when an investor buys or sells a bond, the counterparty to the trade is almost always a bank or securities firm acting as a dealer. In some cases, when a dealer buys a bond from an investor, the dealer carries the bond “in inventory.” The dealer’s position is then subject to risks of price fluctuation. In other cases, the dealer immediately resells the bond to another investor.

Bond markets can also differ from stock markets in that, in some markets, investors sometimes do not pay brokerage commissions to dealers with whom they buy or sell bonds. Rather, the dealers earn revenue by means of the spread, or difference, between the price at which the dealer buys a bond from one investor -- the “bid” price -- and the price at which he or she sells the same bond to another investor--the “ask” or “offer” price. The bid/offer spread represents the total transaction cost associated with transferring a bond from one investor to another.

In general, bond markets and stock markets are inversely related. Moreover, the volatility of bonds (especially short- and medium-dated bonds) is lower than that of shares. Thus, bonds are generally viewed as safer investments than shares, but this perception is only partially correct. Bonds do suffer from less day-to-day volatility than shares, and bonds’ interest payments are often higher than the general level of dividend payments.

Bonds are liquid – it is easy to sell one’s bond investments, though not nearly as easy as it is to sell shares – and the comparative certainty of a fixed-interest payment twice per year is attractive. Bondholders also enjoy a measure of legal protection: under the law of most countries, if a company goes bankrupt, its bondholders will often receive some money back (the recovery amount), whereas the company shares often ends up valueless.

Risks of Investing in Bonds

Fixed-rate bonds are subject to interest rate risk, meaning that their market prices will decrease in value when the generally prevailing interest rates rise. Since the payments are fixed, a decrease in the market price of the bond means an increase in its yield.

When the market interest rate rises, the market price of bonds will fall, reflecting investors' ability to get a higher interest rate on their money elsewhere — perhaps by purchasing a newly issued bond that already features the newly higher interest rate.

Bond prices can become volatile depending on the credit rating of the issuer - for instance if the credit rating agencies upgrade or downgrade the credit rating of the issuer. A downgrade will cause the market price of the bond to fall.

The bond credit rating assesses the creditworthiness of a debt issue. It is analogous to credit ratings for individuals and countries. The credit rating is a financial indicator to potential investors of debt securities such as bonds.

Below are examples of credit rating assigned by the rating agencies.

Sample Ratings

Long Term	Short Term	Description
AAA	A1+	Prime
AA+		
AA		High grade
AA-		
A+	A1	
A		Upper medium grade
A-		
BBB+	A2	
BBB		Lower medium grade
BBB-		
BB+	B	
BB		Non-investment grade, speculative
BB-		
B+		
B		Highly speculative
B-		
CCC	C	Substantive risks, extremely speculative. In default with little prospect for recovery
DDD	/	In default

A company's bondholders may lose much or all their money if the company goes bankrupt. Bondholders are in line to receive the proceeds of the sale of the assets of a liquidated company ahead of some other creditors.

Bank lenders, deposit holders (in the case of a deposit taking institution such as a bank) and trade creditors may take precedence. There is no guarantee of how much money will remain to repay bondholders.

Some bonds are callable, meaning that even though the company has agreed to make payments plus interest towards the debt for a certain period, the company can choose to pay off the bond early. This creates reinvestment risk, meaning the investor is forced to find a new place for his money, and the investor might not be able to find as good a deal, especially because this usually happens when interest rates are falling.

8.4.4 Foreign Exchange Market

The foreign exchange market is by far the largest and most liquid market in the world. The estimated worldwide turnover of foreign exchange transactions is more than three trillion US dollars a day. The breadth, depth, and liquidity of the market are truly impressive. Individual trades of two hundred million US dollars to five hundred million US dollars are not uncommon. Quoted prices change as often as twenty times a minute.

It has been estimated that the world's most active exchange rates can change up to eighteen thousand times during a single day, yet econometric studies indicate that prices tend to move in relatively small increments, a sign of a smoothly functioning and liquid market.

Among the various financial centres around the world, the largest amount of foreign exchange trading takes place in the United Kingdom, even though that nation's currency—the pound sterling—is less widely traded in the market than several others.

Most of the foreign exchange trading is handled "over-the-counter," (OTC) by banks in different locations making deals through telephone and telex. Buying and selling foreign currencies is considered the exercise of an express banking power.

The US dollar is the most widely traded currency. In part, the widespread use of the dollar reflects its substantial international role as "investment" currency in many capital markets, "reserve" currency held by many central banks, "transaction" currency in many international commodity markets, "invoice" currency in many contracts, and "intervention" currency employed by monetary authorities in market operations to influence their own exchange rates. In addition, the widespread trading of the dollar reflects its use as a "vehicle" currency in foreign exchange transactions, a use that reinforces, and is reinforced by, its international role in trade and finance.

Foreign Exchange Trading may be for "spot" or "forward" delivery. A spot contract is a binding obligation to buy or sell a certain amount of foreign currency at the current market rate. A forward contract is a binding obligation to buy or sell a certain amount of foreign currency at a pre-agreed rate of exchange, on or before a certain date.

Spot Dealing

Spot dealing has the advantage of being the simplest way to meet all foreign currency requirements, but it also carries with it the greatest risk of exchange rate fluctuations, as there is no certainty of the rate until the transaction is carried out.

The spot rate will be set by current market conditions, the supply and demand for the currencies being traded and the amount being dealt with. The larger the amount being dealt, the better the spot rate.

In general, a spot deal will settle two working days after the deal is struck.

All trades that take place in the foreign exchange market involve the buying of one currency and the selling of another currency simultaneously. This is because the value of one currency is determined by its comparison to another currency. The first currency of a currency pair is called the "base currency," while the second currency is called the "counter currency." The currency pair shows how much of the counter currency is needed to purchase one unit of the base currency. Currency pairs can be thought of as a single unit that can be bought or sold. When purchasing a currency pair, the base currency is being bought, while the counter currency is being sold. The opposite is true when the sale of a currency pair takes place.

The Forward Market

The Forward Market requires a more complicated calculation - a forward rate is based on the prevailing spot rate plus (or minus) a premium (or discount) which are determined by the interest rate differential between the two currencies involved.

Forward rate	=	Spot rate	+	Premium
			OR	
			-	Discount

For example, UK interest rates are higher than those in the U.S. and so an adjustment is made to the spot rate to reflect the monetary effect of this differential over the period of the forward contract.

The important thing to remember is that a forward rate is not a guess as to what the spot rate is going to be in the future; it is purely a mathematically driven calculation.

A forward rate will protect against unfavourable movements but will not allow gains to be made should the exchange rate move in a favourable direction in the period between entering the contract and final settlement of the currency.

Forward contracts are available for any period up to two years. Longer periods are available in certain currencies.

Exchange Rate Quotation

A participant in the Foreign Exchange Market will normally ask for a price in, for example, 'USD-SGD', the number of Singapore Dollars which can be bought for one US Dollar. They will be quoted two prices - these are called a bid price and an offer price.

Since exchange rate provides the value of one currency relative to another currency, the value of currency can be quoted in two different ways. For example, consider the currencies S\$ and US\$. Firstly, three letters describe each currency. For example, Singapore dollar is stated as SGD, US dollars as USD, EURO as EUR, Japanese yen as JPY and Australian dollar as AUD.

If we consider USD and SGD, we can calculate the value of one unit of USD in terms of SGD or the value of 1 unit of SGD in terms of USD. For example, we can state the exchange rate as either

1 USD = SGD 1.3012 or
1 SGD = USD 0.7685

Usually in the foreign exchange market, both types of quotations are used. If one unit of foreign currency is stated in terms of the local currency units, the quotation is said to be **direct quotation**. If one unit of local currency is stated in terms of the foreign currency units, the quotation is said to be **indirect quotation**. In general, each country decides whether to use direct quotations or indirect quotations. Almost all countries use direct quotation except some of the Commonwealth countries such as United Kingdom, Ireland, Australia, and New Zealand which use indirect quotation. For example, USD exchange rate will be quoted as 1.3012 in Singapore whereas it will be quoted as 0.7685 in US, since both are using the direct quotations.

AUD-SGD exchange rate will be quoted as 1.3438 in Singapore whereas it will be quoted as 1.3438 in Australia as direct quotation is used in Singapore and indirect quotation is used in Australia. In UK, GBP – AUD rate will be quoted as 1.4689 and in Australia it will be quoted as 0.6808 since both follow indirect quotation.

The general practice is providing quotation up to four digits following the decimal points. Also based on value, the number of units of the currency in the quote need not have to be one unit. For example, JPY is quoted usually in terms of 100 JPY. The size of the currency unit is chosen such that we can use four-digit quote.

Converting Direct Quote into Indirect Quote

Since direct quote provides number of local currency units per unit of foreign currency and indirect quote provides the number of foreign currency units per unit of local currency, a direct quote is the inverse of the indirect quote.

Direct quote = 1 / indirect quote, and
Indirect quote = 1 / direct quote

For example, an importer has received a cheque for 1 million USD. He wants to know how many SGD he will receive by converting 1 million USD. Here he needs to know how many SGD he will receive per USD. In Singapore, the quote is 1.3012. This is a direct quote that provides the number of SGD per one unit of USD. Since he will receive 1 million USD, he can use the direct quote to find that he will receive SGD 1.3012 million.

Bid and Ask Quotations

The foreign currency trading is done in the foreign exchange market in which dealers provide the market by buying and selling the currency. Typically, the price at which the dealers buy a currency will be different from the price at which they sell the same currency. The price at which the dealer will buy the currency is known as the bid rate and the rate at which the dealer will sell the currency is known as the ask rate. Since the dealer is taking the risk of changing currency values when he buys the currency, typically the rate at which he buys the currency will be smaller than the price at which he sells the currency. The difference between the ask rate and bid rate is known as the bid-ask spread. When the dealer quotes the exchange rate, he will quote the bid rate and ask rate.

Per 1 USD	
Bid	Ask
1.2627	1.2640

Cross-rate

Cross-rate is when two currencies are equal which follows from their foreign exchange currency exchange rate according to a foreign exchange rate of the third currency. Pairs of non-US dollar currencies are called “crosses.”

Example: Calculation GDP/RM cross rate

A customer wants to buy pound sterling (GDP) from a bank and pays for it in Ringgit (MYR).

Determine the amount of Ringgit he must pay if the market rates are as follows:

1 USD = 3.5520/30 MYR

1 GDP = 1.6355/65 USD

The amount of Ringgit the customer has to pay for 1 GDP is equal to 5.8145 MYR (1.5365 x 3.55320).

Factors Influencing Exchange Rates

Currency prices are affected by a variety of economic and political conditions, most importantly interest rates, inflation, and political stability. Moreover, governments sometimes participate in the foreign exchange market to influence the value of their currencies, either by flooding the market with their domestic currency to lower the price, or conversely, buying in order to raise the price.

Any of these factors, as well as large market orders, can cause volatility in currency prices. However, the size and volume of the foreign exchange market makes it impossible for any one entity to “drive” the market for any length of time.

The factors that influence the rate of exchange are as follows:

- Economic growth higher than other major countries tends to cause a deterioration in the trade balance (imports rising faster than exports); on the other hand, this may attract foreign capital, for example securities investments and direct investments.
- Rising interest rates - with other factors remaining constant - should strengthen a currency by attracting more capital. But under floating rates the market weighs the advantage of high interest rates against the downward risk of the exchange rate and, overall, high interest rates seem to reflect certain fundamental economic weaknesses, such as scarcity of capital and high inflation.
- Political and/or psychological factors can have a bearing on exchange rate behaviour, mainly by inducing capital flows. In turbulent times it is often perceptions, rather than any concrete reason, that make people move in and out of certain currencies.
- High inflation makes a country less competitive internationally, and therefore tends to cause deterioration in the current account. For the various reasons already mentioned, exchange rates, however, quite often either "overshoot" or "undershoot" the level indicated by inflation differentials - which does not necessarily mean, though, that prevailing rates are not "economically justified". While economic factors are of decisive importance in determining exchange rates in the long term, non-economic factors may at times have a short-term influence.
- Technical factors can sometimes have an influence, especially for short periods. Regulations by central banks, or internal bank regulations, about the size of open positions may, for instance, make it necessary to reduce or cover short positions at a given moment; this creates a technical, but not genuine, demand for that currency.
- Or minimum reserve requirements to be met on certain reporting days can create a temporary shortage in the money market, resulting in an equally temporary strengthening of a currency.

8.4.5 Islamic Investment Products

Islamic investment products are recognized as a specialized class of investment products that seems to be a viable alternative in a climate of tightening financial regulation and consumer backlash against volatile and complex financial products.

As of 2011, the Islamic finance industry is estimated to be US\$1.3 trillion in total assets, clocking an annual growth rate of 20 per cent over the last five years. Notwithstanding the growth, this is less than 1 per cent of the global financial system. By estimates, in the Muslim world, roughly one in eight of bank-able Muslims bank Islamic, while the remaining seven Muslims bank conventional.

Islamic finance, with its focus on transparency, price certainty, and risk-sharing, can offer a viable alternative to both Muslims and non-Muslims. One such example is Singapore-listed Sabana Shari'ah Compliant REIT, which counts three-quarters of its investors as conventional investors and raised S\$533m in Nov 2010. Another notable example is the S\$1.5b issue of Islamic bonds (sukuk) by the Khazanah National of Malaysia in Aug 2010.

8.4.6 Property Market

Property is the most tangible of all investments. It has been a popular route to wealth for most Singaporeans. Buying their own home is often the first investment many people make; purchasing another property may well be the second even before shares and other assets.

The property market also has a number of distinctive features compared with other types of assets such as shares and bonds.

The unique features of the property market are as follows:

- The supply of property is intensively local;
- Delivery of the new stock can take quite a long time owing to the length of the planning and construction phases;
- Rents can be very sticky because of the use of long-term rental contracts;
- Market prices lack transparency, and most transactions occur through bilateral negotiations;
- The liquidity of the market is constrained because of the existence of high transaction costs;
- Borrowers rely heavily on external financing;
- Real estate is widely used as collateral; and
- Short sales are usually not possible.

These features cause property prices to behave differently. In the short run, property prices are more likely to deviate from their long-term fundamentals. And fluctuations in property prices can arise not only owing to cyclical movements in economic fundamentals, interest rates and the risk premium, but also because of the intrinsic characteristics of the property market itself.

Advantages of Investing in Properties

Investing in properties has grown in popularity over the years and the following reasons are considered the main attractions:

- Compared to other assets, properties offer stability, simplicity, and excellent returns. For example, while shares offer high returns, many investors have found them to be a volatile and dangerous investment.
- This is especially true for the non-professional investor as there are many hidden external factors that can effect a financial investment. Added to this, the major stock markets have been under-performing generally, and many investors are now turning to property as a far better option than other forms of investment.
- In general, many banks are willing to lend money to purchasers of properties to pay for the acquisition. Not many other forms of investment allow the investor to fund the purchase with borrowed money.
- Buying specifically for investment purposes allows the investor to remove the emotion from the purchase and look at the property purely as an investment vehicle.

- The owner of the property can release equity against the ownership. Although there is no law that states that property will increase in value each year, it is generally accepted that a well-maintained property in a reasonable area will appreciate.
- It is a well-documented fact that properties provide a natural hedge against inflation.
- Generally, the gains derived from the sale of a property in Singapore are not taxable as it is a capital gain. However, when a person is deemed to be trading in properties, the gains from the sale of property in Singapore is considered taxable income. Whether a person is deemed to be carrying on a trade will depend on individual circumstances.

Disadvantages of Investing in Properties

Investing in properties has long been seen as the ideal investment for earning long-term wealth. However, there are downsides to property investment.

The main drawback is the lack of liquidity. Even if the investor is committed to invest for a long term, circumstances may mean that the investor may need to withdraw part or all his investment.

If the investor wants to sell an investment property, he may have to wait months before a buyer can meet his asking price. If he only needs to cash-in a small part of his investment, he cannot simply sell off the balcony or the kitchen. He can increase the size of his loan; however, this means an increase in his debt level.

Property investments also need a reasonable level of management: an investor must ensure that tenants pay the rent regularly and needs to manage the costs involved in the upkeep of the property and keep thorough records for tax purposes.

Returns from Property Investments

In property investments, there are generally two components of returns - rental yield per annum and capital gain.

Rental yield per annum is the percentage return based on rental income from the property less expenses incurred to maintain the property versus the total purchase price of the property. Here is a simple method to calculate the rental yield on property investment.

Example: Rental Yield from a Property

Assuming Peter purchased a property for \$650,000 inclusive of legal and other related costs. He receives rental income of \$3,800 per month, and in turn, incurs total expenses of \$5,400 per year to maintain the property. What is the rental yield?

The Rental Yield would be calculated as follows:

$$\begin{aligned} & [\text{Net income per year} / \text{Capital Cost}] \times 100 \\ & [\$45,600 - \$5,400 / \$650,000] \times 100 = 6.18\% \text{ p.a.} \end{aligned}$$

Example: Rental Yield and Capital Gain from a Property

Use the same data in the previous example and assume that Peter took an interest-only loan of \$500,000 to finance the property purchase, and the bank charges an interest cost of 6% per annum fixed for the entire financing period. The loan will be repaid on maturity of the financing facility or when the property is sold if it is earlier. The annual interest cost is \$30,000. What is the rental yield and the capital gain?

Using the same formula, Rental Yield = [Net income per year / Capital Cost] x

$$100 [\$45,600 - \$5,400 - \$30,000 / \$150,000] \times 100 = 6.80\% \text{ per annum}$$

Capital gain, on the other hand, is a one-time gain (or loss) when the property is sold. It is calculated by subtracting the original purchase price from the selling price. Assume the property is sold 5 years later for \$850,000; the capital gain would be:

$$\$850,000 - \$650,000 = \$200,000 \text{ or } 30.77\% \text{ over the original purchase price}$$

Taking in to account the leverage (borrowing) effect, the Leveraged Capital Gain would be $(\$850,000 - \$650,000) / \$150,000 \times 100 = 133.33\%$ over the initial capital. The total return yield from an investment property is the rental yield plus the capital gain over the investment period.

8.4.7 A Summary of Investment Considerations

Having discussed the various forms of primary investment, the next thing to establish is how to use them in asset allocation. Choosing a single strategic objective and assigning weightings to all other possible objectives is a process that depends on many factors.

These factors include:

- the investor's temperament,
- his or her stage of life,
- marital status, and
- family situation.

Out of the multitude of possibilities out there, each investor is sure to find an appropriate mix of investment opportunities.

Growth of capital is most closely associated with the purchase of ordinary shares, particularly growth securities, which offer low yields but considerable opportunity for increase in value.

For this reason, ordinary shares generally rank among the most speculative of investments as their return depends on what will happen in an unpredictable future.

Blue-chip shares, by contrast, can potentially offer the best of all worlds by possessing reasonable safety, modest income and potential for growth in capital generated by long-term increases in corporate revenues and earnings as the company matures. Yet rarely are the shares of any company able to provide the near-absolute safety and income-generation of government bonds.

Ordinary shares are often considered the most liquid of investments since it can usually be sold within a day or two of the decision to sell. Bonds can also be marketable, but some bonds are highly illiquid, or non-tradable, possessing a fixed term. Similarly, money market instruments may only be redeemable at the precise date at which the fixed term ends. If an investor seeks liquidity, money market assets and non-tradable bonds aren't likely to be held in his or her portfolio.

To increase their rate of investment return and take on risk above that of money market instruments or government bonds, investors may choose to purchase corporate bonds or preference shares with lower investment ratings.

Investment grade bonds rated at A or AA are slightly riskier than AAA bonds, but presumably also offer a higher income return than AAA bonds. Similarly, BBB rated bonds can be thought to carry medium risk but offer less potential income than junk bonds, which offer the highest potential bond yields available, but at the highest possible risk. Junk bonds are the most likely to default.

More importantly, the investor must understand what he is investing in and be comfortable with the level of risk he is exposed to as compared to the level of his expected return.

8.5 MANAGED INVESTMENTS

To most people, trying to understand the various types of primary investment is an uphill task, let alone selecting which to invest in. It will take a substantial amount of time and effort in finding, studying, and deciding on the opportunities that match the investment objectives, and for that reason, many investors turn to managed investment.

Managed investment schemes are also known as 'managed funds', 'pooled investments' or 'collective investments'.

Generally, in a managed investment scheme, people are brought together to contribute money to get an interest in the scheme. Money is pooled together from other investors (often many hundreds or thousands of investors) or used in a common enterprise. A 'responsible entity' operates the scheme. Investors do not have day-to-day control over its operation.

Managed investment schemes cover a wide variety of investments. Some of the popular managed investment schemes include unit trusts, real estate investment trusts, exchange-traded funds, and hedge funds.

8.5.1 Unit Trust Funds

Unit trust funds are open-ended funds operated by an investment company which raises money from unit holders and invests in a group of assets, in accordance with a stated set of objectives.

The managers of the unit trust fund take the money they receive from the sale of their units (along with any money made from previous investments) and use it to purchase various investment vehicles, such as shares, bonds, and money market instruments.

In return for the money, they give to the fund when purchasing shares, shareholders receive an equity position in the fund and, in effect, in each of its underlying securities.

For most unit trust funds, the unit holders are free to sell their units at any time, although the price of a share in a fund will fluctuate daily, depending upon the performance of the securities held by the fund.

Benefits and Disadvantages of Unit Trusts

Among the benefits of unit trust funds include professional management, diversification of risk and liquidity.

- **Professional Management**

Unit trusts are managed by professional investment managers who possess extensive training and experience in securities investment. They are backed up by a sizeable professional research team tasked to perform comprehensive and systematic analyses on the financial markets daily. Investing with professionally managed unit trust funds makes this in-depth knowledge available to amateur investors and gives them a good grasp of market trends.

- **Diversification of Risk**

A golden rule of investment is: "Don't put all your eggs in one basket". Unit trust funds pool the capital from individual investors and invest it in a diversified portfolio, for example, stocks, bonds, real property, or investments in different industries and different regions like Europe and Southeast Asia. Most individual investors do not have the means or the inclination to make these kinds of investment. Through unit trust funds, they can participate in widely diversified investments and effectively diversify their risk.

- **High Liquidity**

When investors need cash, they may apply for redemption. Typically, it takes three to ten business days to complete the redemption procedure and receive the cash. Therefore, liquidity is high.

On the other hand, the management fees charged on the buying or selling of units may be high. Furthermore, it often requires a minimum amount of investment.

Mechanics of a Unit Trust Fund

A unit trust scheme is created out of a deed which constitutes a contractual agreement governing the tripartite relationship between the:

- **Manager** - Often referred to as the management company, which is the promoter of the fund and is responsible for the day-to-day operations and its overall investment performance.
- **Unit Holders** - Investors of the funds. The ownership of a unit trust is expressed in the form of units. Depending on the amount invested, a proportionate share of the fund will be allocated to the investor. The returns, commonly known as income distribution are distributed annually or bi-annually depending on the performance of the funds.

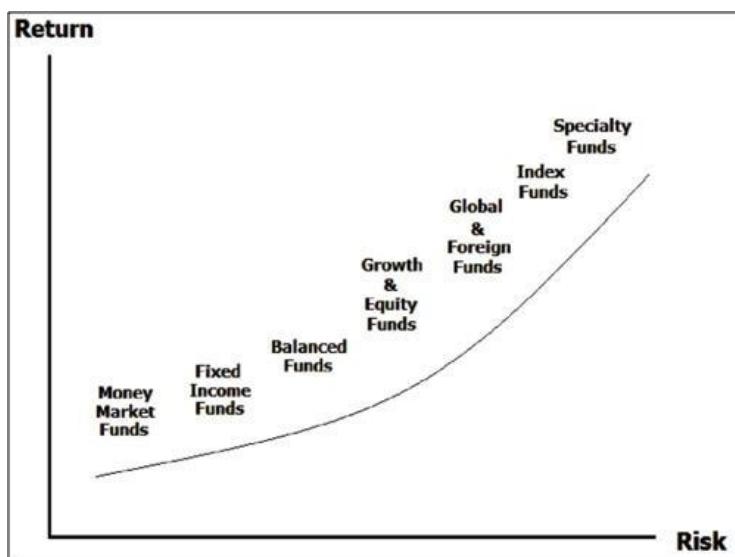
- **Trustee** - Appointed to act as the custodian for all assets of the Fund, and to ensure that the Manager adheres strictly to the provisions of the Trust Deed. The Trust Deed is the document that shows the rights and obligations of the Unit Trust Management Company, the rights and duties of the Trustee, and the rights of the Unit Holders. It states the maximum fee payable, the type of investment which that scheme can make, how the value of a unit in the scheme is determined, and how the price of a unit sold to unit holders and thereafter redeemed from them, is calculated.

The deed also outlines the steps to be taken should there be a need to make changes to the deed itself. Usually, this includes getting the consent of the unit holders, who will vote on the proposed changes. Also set out in the deed are the responsibilities of the auditor, appointed by the trustee of the unit trust scheme.

Categories of Unit Trusts

Unit trusts are generally categorized according to their investment objectives and their investment policies. Some unit trusts focus on shares, others on bonds, money market instruments, or other securities. On the international scene some funds invest primarily in their countries, others invest internationally, and some specialize in specific countries.

Risk-return trade-off of various types of unit trust funds



Below are some of the categories of unit trusts:

- **Money Market Funds**

These funds invest in short-term (less than one year to maturity) corporate and government debt securities such as Treasury bills and corporate notes. Some money market funds specialize in or invest only in government securities. These are generally very low-risk funds offering moderate returns.

- **Fixed Income Funds**

These funds invest in debt securities like bonds, debentures, and mortgages that pay regular interest, or in corporate preferred shares that pay regular dividends. The goal, typically, is to provide investors a regular income stream with low risk.

- **Growth or Equity Funds**

These are funds which invest primarily in common shares (equities) of local or foreign companies (if allowed) but may hold other assets as well. The goal is typically long-term growth through capital appreciation of the assets held. Some growth funds focus on large ‘blue-chip’ companies, while others invest in smaller or riskier companies. Performance will be affected by the success or failure of specific investments and by the performance of the stock markets.

- **Balanced Funds**

These are funds which invest in a ‘balanced’ portfolio of equities, long-term debt securities and money market instruments with the objective of providing reasonable returns with low to moderate risk.

- **Global and Foreign Funds**

These are funds which may be fixed income, growth, or balanced funds that invest in foreign securities. These funds can offer investors international diversification and exposure to foreign companies but are subject to risks associated with investing in foreign countries and foreign currencies.

- **Specialty Funds**

These are funds which invest primarily in a specific geographical area (e.g., North Asia) or in a specific industry (e.g., high-technology companies). As a result, specialty funds are subject to a certain risk level related to the market in which it specializes. The types of risks specialty funds face include foreign exchange, political, geographical, or sectoral (industry) risk.

- **Index Funds**

These are funds which invest in a portfolio of securities selected to represent a specified target index or benchmark. The associated risk is directly related to the risk of the market that the index is measuring, such as the stock market.

- **Syariah-based Funds**

Syariah-based funds are collective investment funds that offer investors exposure to a diversified portfolio of Syariah-compliant securities, managed in accordance with the Syariah principles. The schemes are available in many forms such as Islamic equity funds, sukuk funds and many others.

Selecting the Appropriate Unit Trust Fund

As a financial planner, it is normal for your clients to seek your guidance in selecting the appropriate unit trust funds to invest in. But choosing the right fund has never been easy and there are certain steps a planner should take in determining which fund is most appropriate for the client.

- **Investment Objectives**

The planner must be clear of the client's investment objectives. This will help to determine the right fund for him. For example, if the client is looking for a source of steady income, the planner may not want to recommend that he invests in a unit trust set up to achieve capital gains.

- **Client's Risk Profile**

The planner should always assess the client's risk profile and get a good understanding of how much risk the client is willing to take, i.e., how much money he is prepared to lose.

Different funds have different degrees of risks. Always remember that higher returns are associated with higher risks. The ability to truly understand the client's risk profile is crucial. It will help the planner focus on the client's investment objectives and prevent the planner from being distracted by the numerous colourful brochures and promises which could mislead him into recommending the wrong fund to the client.

- **Evaluating the Fund**

Once the planner has ascertained the investment objectives and risk profile of the client, it is time to get all the relevant information about the fund. The sources of information could be from the following:

Prospectus --- This important document contains most of the basic information of the fund, such as the fund's objectives, the manager's qualifications and experience, fees and charges, and other relevant information. The prospectus is normally available at the management company that distributes the fund.

Newspapers and business magazines --- Newspapers and business magazines are the most accessible sources of information for the planner and unit trust investors. Usually, newspapers will carry news and data on unit trust funds in their daily coverage.

- **Fund Manager's Background and Experience**

It is vital to know the fund manager's background and experience. In addition, ensure that the fund manager is licensed by the appropriate authorities.

- **Fund's Past Performance**

Past performances of the fund can be used as a basis to gauge the consistency of the fund manager's track record, however, it should never be used to determine the future performance of the fund.

A suitable fund for the client is the one that does not only provide the client with good returns but also meets his investment objectives and risk profile. By helping the client to clarify his objectives and evaluating his risk profile as well as gathering all the relevant information, the planner will be in a better position to determine the right fund for his client.

The above are just some basic and general guidelines to choosing the right unit trust funds and not an exhaustive one. A planner must make all the necessary efforts and initiatives to ensure that the client's investment decision is an informed one.

Dollar-Cost Averaging

The Principle of Dollar-Cost Averaging (DCA) involves a disciplined regular investment technique which may be applied to maximum effect in unit trust investing. This investing technique is intended to reduce exposure to risk associated with making a lump sum purchase.

Under the DCA principle, an investor will invest a regular fixed sum of money with a selected unit trust fund over a period (monthly, quarterly, etc). By this way, the investor does not have to worry about market timing, and where shares prices or interest rates are heading. Regular investment means purchasing fewer units when market goes up and more units when the market comes down. It safeguards against the possibility of losing value shortly after making the investment and limits the downside of an immediate drop in asset value after a lump sum is invested.

Example:

Jenny invests \$1,000 per month for 4 months in a unit trust fund.

Month	Amount Invested	Unit Price	Units Purchased	Investment Value
1	\$1,000	\$1.00	1,000	\$1,000
2	\$1,000	\$1.20	830	\$2,200
3	\$1,000	\$0.65	1,540	\$2,190
4	\$1,000	\$1.00	1,000	\$4,370
<i>Total</i>	<i>\$4,000</i>		<i>4,370</i>	<i>\$4,370</i>

As you can see in the above illustration, when the unit price rose to \$1.20, Jenny bought 830 units. When the unit price drops to \$0.65, Jenny automatically bought more units, that is, 1,540 units.

Over time, as Jenny continued to buy more units, her average cost per unit was effectively reduced. After the 4th month, her average cost per unit was $\$4,000 / 4,370 \text{ units} = \0.9153 . This is less than the simple average of the prices over the four months of \$0.9625.

8.5.2 Real Estate Investment Trusts (REITs)

REITs allow investors to buy an interest in a professionally managed portfolio of real estate. Investors in REITs gain exposure to both the value of the real estate the trust owns, and regular rental income generated from the properties.

The key to investing in REITs successfully is to know the sustainability and potential of their rental income, the management's integrity and their intention and competency to improve and grow their rental properties.

REITs usually invest in the following types of real estate:

- Office buildings and parks
- Industrial estates
- Retail and shopping centres
- Hotel properties
- Car parks
- Warehouses

The main incomes of REITs are rental incomes. Usually, REITs pay out as much as 90% of its taxable profit as dividends as this is either required by regulations or due to tax incentives. In some countries, REITs are known as property funds, and they may also be listed on an exchange.

The Sabana Shari'ah Compliant REIT is a Singapore-based REIT that invests in income-producing real estate used for industrial purposes, as well as real estate-related assets, in line with Shari'ah investment principles. AXIS REIT and Starhill REIT are some of the property funds that are listed on Bursa Malaysia.

REITs can be classified according to their investment focus, such as:

- **Equity REITs:** Equity REITs directly own and operate income properties such as apartment buildings, office buildings, industrial parks, or hotels. Income is generated from property rents. Capital gain income is also possible if properties are sold at a profit.
- **Mortgage REITs:** Mortgage REITs invest their money in various types of mortgages, usually for existing properties. In some cases, REIT funds will back mortgages on new construction. Income is generated from the interest received on the mortgages.
- **Hybrid REITs:** As the name suggests, hybrid REITs invest in both direct ownership of real estate as well as mortgage loans.
- **Finite life real estate investment trusts (FREITs):** FREITs are a type of equity REITs which have a stated goal of liquidating the real estate portfolio by a specific date. The primary investment goal of a FREIT is to maximize potential capital gain.

8.5.3 Exchange Traded Funds

An exchange-traded fund (or ETF) is an investment vehicle traded on stock exchanges, much like shares. An ETF holds assets such as shares or bonds and is traded at approximately the same price as the net asset value of its underlying assets over the course of the trading day.

Most ETFs track an index, such as the FTSE ST All Share Index, FTSE Bursa Malaysia KLCI, S&P 500 or MSCI EAFE. ETFs may be attractive as investments because of their low costs, tax efficiency, and stock-like features. ETFs have been known to be the most innovative investment vehicle of the last two decades and it has been reported that ETFs have fundamentally changed the way investment portfolios are constructed.

An ETF combines the valuation feature of a unit trust fund, which can be purchased or redeemed at the end of each trading day for its net asset value, with the tradability feature of a closed-end fund, which trades throughout the trading day at prices that may be more or less than its net asset value. Closed-end funds are not considered to be exchange-traded funds, even though they are funds and are traded on an exchange.

A few examples of Singaporean ETFs include the CIMB FTSE ASEAN40 ETF, iShares MSCI India ETF, Daiwa FTSE Shariah Japan ETF, Lyxor ETF MSCI World, and the StreetTRACKS Straits Times Index Fund.

ETFs generally provide easy diversification, low expense ratios, and tax efficiency of index funds, while still maintaining all the features of ordinary shares. ETFs can be economically acquired, held, and disposed of; some investors invest in ETF shares as a long-term investment for asset allocation purposes, while other investors trade ETF shares frequently to implement market timing investment strategies.

Advantages of ETFs

Among the advantages of ETFs are the following:

- **Lower costs** - ETFs generally have lower costs than other investment products because most ETFs are not actively managed and because ETFs are insulated from the costs of having to buy and sell securities to accommodate shareholder purchases and redemptions. ETFs typically have lower marketing, distribution, and accounting expenses.
- **Buying and selling flexibility** - ETFs can be bought and sold at current market prices at any time during the trading day. As publicly traded securities, their shares can be purchased on margin and sold short.
- **Market exposure and diversification** - ETFs provide an economical way to rebalance portfolio allocations and to “equitize” cash by investing it quickly. An index ETF inherently provides diversification across an entire index.
- **Transparency** - ETFs, whether index funds or actively managed, have transparent portfolios and are priced at frequent intervals throughout the trading day.

8.5.4 Hedge Funds

A hedge fund is an aggressively managed portfolio of investments that uses advanced investment strategies such as leveraged, long, short, and derivative positions in both domestic and international markets with the goal of generating high returns (either in an absolute sense or over a specified market benchmark).

Legally, hedge funds are most often set up as private investment partnerships that are open to a limited number of investors and require a very large initial minimum investment. Investments in hedge funds are illiquid as they often require investors to keep their money in the fund for at least one year.

Hedge funds, like unit trust funds, are pools of investment capital from the money people want to invest with. However, there are many differences between the two, including:

- Most unit trust funds are regulated by market regulators, like MAS in Singapore and Securities Exchange Commission in the US, while hedge funds may not be regulated.
- Unit trust funds are priced and are liquid daily whereas many hedge funds have no standard method of ascertaining pricing on a regular basis.
- For unit trust funds, the prospectus must be made available to anyone who requests for it and must disclose their asset allocation periodically, whereas hedge funds do not have to abide by these terms.
- Hedge funds, in most cases, do not have daily liquidity, but rather “locked up” periods of time where the total returns are generated (net of fees) for their investors and then returned when the term ends.

Hedge funds are by reputation a risky and esoteric investment category. In Singapore, normal retail investors are forbidden from investing in them. In major financial centres like Singapore and Hong Kong, hedge funds are typically open only to a limited range of professional or wealthy investors. This provides them with an exemption from regulations governing short selling, derivative contracts, leverage, fee structures and the liquidity of interests in the fund. It also opens the funds to undertake a wider range of investment and trading activities. Each fund has its own strategy to determine the type of investments and the methods of investment it undertakes.

As the name implies, hedge funds often seek to offset potential losses in the principal markets they invest in by hedging their investments using a variety of methods, most notably short selling. However, the term “hedge fund” has come to be applied to many funds that do not actually hedge their investments, and in particular to funds using short selling and other “hedging” methods to increase rather than reduce risk, with the expectation of increasing returns.

The net asset value of a hedge fund can run into many billions of dollars, and this will usually be multiplied by leverage. Hedge funds dominate certain specialty markets such as trading within derivatives with high-yield ratings and distressed debt.

8.6 INVESTING IN UNLISTED SPECIFIED INVESTMENT PRODUCTS

Investment products have been around for a while. Some products are already established in the market and generally understood by many retail investors. Others may be less established and have features and risks that may be more difficult to understand.

For the second group of products (also known as “Specified Investment Products”), MAS announced new requirements relating to the sale of such products to retail investors.

Specifically, from 1 January 2012 onwards, financial institutions that act as intermediaries for these products will be required to assess whether a retail customer has the relevant knowledge or experience to understand the risks and features of a Specified Investment Product before offering the product to them. Intermediaries include financial institutions such as broking firms, banks, insurers, and financial advisers.

This is in addition to MAS' current requirements for financial institutions to properly disclose the features and risks of investment products, ensure that their representatives offering investment products to customers meet certain requirements, and have a reasonable basis when recommending investment products to customers.

Specified Investment Products

Specified Investment Products are likely to contain derivatives, and may have features, and risks that can be more difficult for retail consumers to understand. Examples include structured notes, exchange traded funds, exchange traded notes, investment linked insurance policies, warrants and options, futures, and certificates.

In fact, any investment product other than those listed below and any investment product that is only listed on an overseas exchange is classified as a Specified Investment Product.

- a) Shares
- b) Fully paid depository receipts representing shares
- c) Subscription rights pursuant to rights issues
- d) Company warrants
- e) Units in business trusts
- f) Units in real estate investment trusts
- g) Debentures (other than asset-backed securities & structured notes)
- h) Life insurance policies (other than investment-linked life insurance policies)
- i) Contracts or arrangements for the purpose of foreign exchange trading (other than derivatives of foreign exchange contracts and leveraged foreign exchange trading)

New measures to purchase a Specified Investment Product

The following two new measures will apply if client wishes to purchase a Specified Product or open an account for trading Specified Investment Products:

(i) Assessing if client has relevant knowledge and experience

From 1 January 2012 onwards, intermediaries must assess if client has the relevant knowledge and experience before offering a Specified Investment Product to client or opening an account for client to trade Specified Investment Products listed on an exchange.

To do this, the intermediary will request information on client's educational qualifications, investment experience and work experience.

Based on the information client has provided, the intermediary will assess whether client may proceed to purchase an unlisted Specified Investment Product or open an account to trade listed Specified Investment Products.

This new process is known as:

- the "Customer Account Review" if client wishes to open an account to trade Specified investment Products listed on an exchange; and

- the “Customer Knowledge Assessment” if client wishes to purchase a Specified Investment Product that is not listed on an exchange.

If the intermediary assesses that the client does not have the relevant knowledge or experience to purchase the unlisted Specified Investment Product or to open an account to trade listed Specified Investment Products, they may suggest that the client undergo learning modules to learn more about Specified Investment Products.

(ii) Offering client financial advice

Intermediaries must offer to provide client with financial advice on whether the Specified investment Product is suitable for client, considering of client’s knowledge and experience in the product.

If client decides not to take up the offer of advice, or to invest in a Specified Investment Product that the intermediary did not recommend to client, client will have to be responsible for his/her own investment decision.

The Investment Planning Process

Explain the investment process and recommend suitable basic investment products or asset allocation strategy based on their investment profile.

When clients have enough to have money left over after paying the costs of living, they may be able to make that extra money go to work for them by investing it to earn a financial return. Investment planning involves deciding how best to put one’s money or capital to work to achieve financial goals.

Secure A Strong Financial Foundation

Before one begins investing, he needs to secure a strong financial foundation. Assist the client to ensure these basic steps are in place:

1. Create a “rainy day” reserve: Set aside enough cash to get you through an unexpected period of illness or unemployment – three to six months’ worth of living expenses is generally recommended. Put the cash in a relatively stable and liquid investment that can earn money but still lets you access the funds easily.
2. Pay off your debts: It makes more sense to pay off high-interest-rate debt (e.g., credit card debt) than to put money into investments that involve an uncertain return.
3. Get insured: Having adequate insurance is the best protection against financial loss, so review client’s home, auto, health, disability, life, and other policies, and increase their coverage, if needed.

The above 3 steps are important and necessary steps the clients need to put in place before he embarks on investment planning. Help the client see such initial actions act as superstructure or foundations to his entire wealth creation and building enterprise. These foundations are to ensure that common unforeseen circumstances do not derail the investment plans he has established.

4. Ensure client is contributing to CPF and even tax deferred retirement savings such as Supplementary Retirement Scheme: Putting money in these accounts defers or minimizes income taxes, leaving you more money to put toward your financial goals. Take full advantage of them if they are available.

A Six-Step Process

It may be helpful to think of investment planning as a six-step process:

1. Setting investment goals
2. Understanding client's investment personality
3. Designing an investment portfolio
4. Selecting specific investments
5. Managing and monitoring the portfolio
6. Rebalancing or redesigning the portfolio, if needed

The following discussion presents a brief introduction to some issues typically involved in this process.

1. Setting Investment Goals

The first step is simply taking stock of client's particular circumstances. His current financial condition and future expectations are the basis for all further investment decisions. Under whom he is as an investor (i.e., his investor profile) will determine which investment strategy or strategies you should implement. For example, he may be saving part of your weekly wages for his 2-year-old child's college education or his own retirement in 30 years. Or perhaps he wants to invest a lump sum for a short period, and then use the money to buy a new house.

To help evaluate his situation, here are a few questions he might consider when setting investment goals:

- How much money does the client have available to invest?
- What are his sources of investment money? Do you have a lump sum, or will you be investing regularly and systematically?
- How much profit does he need the investments to generate?
- What is his age?
- For what purpose will he use the profits?
- What is his current income?
- What does he expect his income to be soon? In the distant future?
- What are his current expenses?
- Does he need current income?
- When will he need the money?
- Is he more focused on earning a high return or minimizing the possibility of loss?

2. Understanding Client's Investment Personality

This is an important part of the process where the adviser gets to know the client's investment personality. Determining the client's risk profile or tolerance is a necessary part of this process but it is more than this. The adviser helps the client know himself and how he would likely behave in various investment situations.

In the process, the adviser and client can be both at the same page on the latter's investment personality. This then will help the adviser structure the client's portfolio and how the investment relationship can be subsequently fostered. The client's investment plan is unlikely to be successful if it doesn't fit his temperament and his individual financial situation. A client with low risk tolerance is more likely to want to liquidate his investment portfolio at periods of volatility even though there is no need to than a client with a high-risk profile. An advisor is therefore instrumental in ascertaining the client's willingness and ability to take risk and plan more conservatively for a client who is more risk adverse and review the client's portfolio regularly.

3. Designing An Investment Portfolio

This is the stage where as an adviser you need to help the client actually make some concrete decisions, matching his investment goals and personality to a combination of various investment categories, whether they be simple investments, such as Certificate of Deposits, or more complex investments, such as stocks or real estate. The process of determining how much of your assets to put into each of various categories of investments is known as asset allocation.

No one asset allocation strategy is appropriate for everyone. For long-term investors who want high growth and don't need current income, an aggressive plan, one that focuses primarily on potential growth might be established. For example, an aggressive investment plan might include 40 percent large company stocks, 25 percent small company stocks, 30 percent international stocks, and 5 percent cash alternatives. By comparison, for investors who put a higher priority on current income and stability than growth, a more conservative plan might be established; for example, it might consist of 15 percent large company stocks, 5 percent international stocks, 55 percent bond funds, and 25 percent cash alternatives. Any combination is possible; these are only hypothetical examples. The plan that suits you best depends on the client's own investor profile.

The major categories of investments available for inclusion in an asset allocation strategy are shown in the following table:

Investment Category	Examples of Investment
Cash alternatives (liquid assets)	Bank CDs, savings bonds, Treasury bills
Debt instruments	Bonds, mortgage-related securities
Treasury securities	Issued by agencies of the government
Equity investments	Stocks
Insurance-based investment products	Annuities, cash value life insurance
Real estate	Direct investments and through trusts
Collectibles	Art, antiques, gems, and collectibles
Alternative assets	Metals, commodities, warrants, options

4. Selecting specific investments

The investment plan is in place. Now the actual investing begins. You may help the client to set up his investment account, select specific investments, and otherwise begin building the client's portfolio in a way that's consistent with his goals and selected strategies.

5. Managing and monitoring the portfolio

Once client's investment plan is set in motion, his portfolio needs ongoing management. You should review his plan regularly to make sure it's on track. As his circumstances or the investment landscape change, his portfolio may need some adjusting. That review can occur, monthly, quarterly, semi-annually, or annually, depending on the types of investments he owns and/or the client's own need and desire to monitor his investments.

6. Rebalancing or Redesigning The Portfolio, If Needed

During the periodic reviews of the client's portfolio, you may find you need to make changes if it is not performing as expected. For example, you may need to rebalance or redesign his portfolio. Rebalancing means adjusting the amount invested in various categories to return to the original asset allocation; redesigning the client's portfolio would involve adjusting it to consider significant changes in the market or his personal situation. The rebalancing can also refer to a qualitative review that considers the political and economic conditions of the global economy, i.e., increasing more exposure to bond funds when the global economy is slowing or increasing exposure to equities after an equities rout. The rebalancing can also be executed over a period of several months to achieve a "drip" effect on the portfolio of a more conservative investor.

Different of Investment Portfolios

An investment portfolio describes all investments owned. It is a significant aspect in diversification. Maintaining a diverse portfolio helps to mitigate loss because the investor has not placed all their eggs in one basket. There are many different types of investment portfolios. Three broad categories of portfolio allocations matching three broad investor types can be suggested as follows:

Aggressive Investor Age 18-35 Long Investment Horizon: 30+ Years	Moderate Investor Age 35-55 Mid-Term Investment Horizon: 20+ Years	Conservative Investor Age 55+ 10+ Years Investment Horizon			
Investor who are very risk tolerant	For investors who can tolerate some risk	For investors who are not risk tolerant			
Broad Asset Allocations 90% - Equities 10% - Bonds	Broad Asset Allocations 70% - Equities 30% - Bonds	Broad Asset Allocations 50% - Equities 50% - Bonds			
Suggested Asset Mix	Suggested Asset Mix	Suggested Asset Mix			
20% Large-Cap Equities	20% Large-Cap Equities	25% Large-Cap Equities			
20% Mid-Cap Equities	20% Mid-Cap Equities	10% Mid-Cap Equities			
20% Small-Cap Equities	10% Small-Cap Equities	10% Small-Cap Equities			
20% International Equities	15% International Equities	5% International Equities			
10% Emerging Markets Equities	5% Emerging Markets Equities	0% Emerging Markets Equities			
10% Intermediate Bonds	30% Intermediate Bonds	40% Intermediate Bonds			
0% Short-Term Bonds	0% Short-Term Bonds	10% Short-Term Bonds			
Growth:	Substantial	Growth:	Moderate	Growth:	Low
Income:	Very low	Income:	Low	Income:	Moderate
Risk:	Substantial Year-to-Year Volatility of Portfolio Value	Risk:	Moderate Year-to-Year Volatility of Portfolio Value	Risk:	Low Year-to-Year Volatility of Portfolio Value
10%	Average Annual Growth in Value	8%	Average Annual Growth in Value	6%	Average Annual Growth in Value
-30%	Bad year	-20%	Bad year	-15%	Bad year

Investment Recommendation Example:

Matt and Jean both age 26 are newlyweds. They are thinking of starting a retirement fund with their available combined savings of \$30,000 and monthly contributions of \$800. They would like to have access to the retirement fund by age 60. Jean is more financially knowledgeable as she works in a bank, while Matt needs a bit more education as an IT consultant. As their financial and investment consultant how would you bring them through the investment planning process and structure an investment portfolio for them?

1. The first step is to help Matt and Jean establish investment goals. It will be prudent to verify if their intended investment amounts of \$30,000 and monthly combined contributions of \$800 are financially viable and sustainable. These can be compared with their current income and expenditure levels. Other areas to take note may include if there would be circumstances, they would need access to funds in this portfolio.
2. Continuing from the first step, the second step proceeds to understand the couple investment profile and behaviour. Understand their expected investment return and risk attitudes and how they would respond under different market scenarios. Given their long investment horizon, the couple may be able to assume a more aggressive investment stance. Educate them, if necessary, on staying on being disciplined and staying invested, not reacting on fear or greed, etc.

3. Given the information gathered in steps 1 and 3, design and recommend portfolio allocations for their consideration. Assuming the couple do not mind taking a more growth approach given their relatively long investment horizon, they can consider two possible portfolio allocations:
Either an aggressive growth portfolio comprising 90% Equities and 10% Bonds or a moderate portfolio allocation of 70% Equities and 30% Bonds.
4. The exact securities mix can be based on the suggested allocations in the table above.
5. For a start, set a 6 monthly review of the portfolio with the couple. Review and change the asset mix or allocations when the client's situation changes. Rebalancing the portfolio at least once a year.

8.7 INVESTMENT APPRAISAL TECHNIQUES

To decide whether an investment should be selected or not, it is important to develop some criteria and decision rules. Three criteria are often used for project selection and appropriate decision rules are devised for each criterion. The three criteria are:

- i) Payback Period (PBP)
- ii) Net Present Value (NPV)
- iii) Internal Rate of Return (IRR)

Before proceeding to discuss these criteria, let us consider the requirements of the criteria used for project selection. Any criteria used should satisfy the following requirements:

- It should take time value of money into account as cash flows at different times have different current values.
- It should consider the risk involved in the project. Since the shareholders require a particular return based on the riskiness, the risk of the project should be considered in the criterion.
- It should consider all the cash flows from the start to the end of the project life. This is important because cash flows are the source of value.
- The criterion should show whether the shareholder value is increased or not. This is important because the objective is to maximise shareholder value.

8.7.1 Payback Period (PBP)

In any project, investment is made at the current time and the project generates cash flows in the future. One may ask a question: "How long does the project take to recover the amount invested?" This is known as the payback period. Payback period is the time taken by the project to recover the amount of investment made in the project.

Example

ABC Corporation is considering the introduction of a new product. The new product requires installation of new machinery costing \$250,000. It is estimated that the project life is 5 years, and the project will generate a cash flow of \$63,000 every year.

To calculate the payback period, we will construct a table showing the cash flows from the project as shown below:

Year	Cash flow	Cumulative cash flow
0	-250,000	-250,000
1	63,000	-187,000
2	63,000	-124,000
3	63,000	-61,000
4	63,000	+2,000
5	63,000	+65,000

We include the current investment of \$250,000 as a cash outflow with negative sign. Cumulative cash flow at any time is calculated by summing up the cash flows from the start of the project up to the time at which cumulative cash flow is calculated. Since cash flow at time 0, which is the start of the project, is -250,000, cumulative cash flow at time 0 is -250,000. At time 1, a cash flow of \$63,000 is received, thus cumulative cash flow at time 1 is $(-250,000 + 63,000) = -\$187,000$. At time 2, a cash flow of \$63,000 is received and cumulative cash flow at time 2 is $(-187,000 + 63,000) = -124,000$.

Payback period is the time at which cumulative cash flow equals zero. In this example, the cumulative cash flow at time 3 is -61,000 and at time 4 is +2000. If we assume that cash flows are received in equal amounts every day, we can calculate the payback period as: $(4 - 2000/63000) = 3.9683$ years. It can also be calculated as $(3 + 61000/63000) = 3.9683$ years.

Example

XYZ Corporation has forecast the following cash flows for a project it is contemplating. The project life is estimated as 4 years.

Year	Cash flow
0	(500,000)
1	200,000
2	200,000
3	200,000
4	200,000

We can calculate the payback period as follows:

Year	Cash flow	Cumulative cash flow
0	(500,000)	(500,000)
1	200,000	(300,000)
2	200,000	(100,000)
3	200,000	100,000
4	200,000	300,000

$$\text{Payback period} = 2 + 100,000/200,000 = 2 \frac{1}{2} \text{ years.}$$

Decision-rule using Payback Period

In the two examples above, we say that the project for ABC Corporation has a payback period of 3.9683 years and for XYZ Corporation, it is 2.5 years. How does ABC or XYZ decide whether the project should be undertaken or not?

In general, companies using payback period as the selection criterion specify a hurdle rate payback period. The hurdle rate payback period is the longest period within which the investment should be recouped. If the project recovers the investment before the hurdle rate payback period, it will be selected; otherwise, it will not be selected. This can be stated as the decision rule:

"Select project if payback period <= Hurdle rate payback period"

In the examples, assume that both ABC and XYZ specify a hurdle rate payback period of 3 years. In that case, ABC will not select the project, as payback period is larger than the hurdle rate payback period while XYZ will select the project, as the payback period of 2.5 years is less than the hurdle rate payback period.

Since the decision rule for project selection is known, let us consider the decision rule for independent projects and mutually exclusive projects.

Example

Assume that a company is considering 3 projects A, B and C and has calculated the payback periods as 2 years, 2.6 years, and 3.4 years respectively. The hurdle rate is 3 years.

- Based on the payback period criterion, which of these projects will be accepted if they are independent projects?
- Based on the payback period criterion, which of these projects will be selected if they are mutually exclusive projects?

First, let us apply the decision rule for each project separately:

Project	Payback	Hurdle rate	Decision
A	2 years	3 years	Accept
B	2.6 years	3 years	Accept
C	3.4 years	3 years	Reject

Based on the payback period decision rule, projects A and B will be accepted.

- a) If they are independent projects, both can be accepted as both satisfy the decision-rule.
- b) If they are mutually exclusive, only one project can be accepted. Since we are using payback period as our criterion, we would accept the project that has a lower payback period. In this example, A has a payback of 2 years and B has a payback of 2.6 years. Since A has a lower payback, it will be selected.

The decision rules for independent projects and mutually exclusive projects can be stated as:

Independent projects: Choose all projects that have payback period \leq hurdle rate payback period

Mutually exclusive projects: Choose project that has lowest payback period and \leq hurdle rate payback period

Now that we have seen how to apply payback period criterion for project selection, let us test how well this criterion meets the four requirements:

- i) Time value of money – In payback period, the actual future cash flows are used which means that time value of money is not considered.
- ii) Risk involved – Since only cash flows are considered, risk involved is not considered.
- iii) Cash flows – Only cash flows up to payback period are considered and all cash flows after payback period are ignored.
- iv) Increase in value – Payback period criterion does not measure whether value is increased or not.

Thus, payback period does not satisfy the requirements of the criterion for project selection. In practice, some companies use discounted payback period method instead of ordinary payback period to incorporate time value of money and risk involved.

Discounted Payback Period

In discounted payback period, the future cash flows are discounted at the appropriate risk-adjusted discount rate before calculating the payback period. The decision rule remains the same as that of payback period. Since future cash flows are discounted to the present time, the discounted payback period will be longer than the payback period.

Example

Calculate the discounted payback period for a project that requires an investment of \$250,000 and produces a cash flow of \$63,000 every year for the 5 years. Assume that risk-adjusted discount rate is 11%.

Year	Cash flow	Discounted cash flow	Cumulative cash flow
0	-250,000	-250,000	-250,000
1	63,000	56,767	-193,243
2	63,000	51,132	-142,111
3	63,000	46,045	-96,046
4	63,000	41,500	-54,546
5	63,000	37,387	-17,158

$$\text{Discounted cash flow in year } t = CF_t / (1 + k)_t$$

This shows that even at the end of the project life, the initial investment is not recouped.

Example

Calculate the discounted payback period for a project that requires an investment of \$500,000 and produces a cash flow of \$200,000 a year for the next 4 years if the discount rate is 12%.

Year	Cash flow	Discounted cash flow	Cumulative cash flow
0	-500,000	-500,000	-500,000
1	200,000	178,571	-321,429
2	200,000	159,439	-161,990
3	200,000	142,356	-19,634
4	200,000	127,104	+107,469

$$\text{Discounted payback period} = 3 + (19634 / 127,104) = 3.098 \text{ years.}$$

Even though discounted payback period considers time value of money and risk, it suffers from the facts that it does not consider cash flows after the payback period and does not explain the value added through the project. Therefore, payback period as well as discounted payback period is not suitable for project selection.

However, discounted payback period provides information about when the investment is recouped, and this can be used for financing future needs.

8.7.2 Net Present Value (NPV)

Net present value is calculated as the difference between the present value of the cash inflows and the present value of the cash outflows. It is calculated as:

$$NPV = CF_1 / (1 + k) + CF_2 / (1 + k)^2 + \dots + CF_n / (1 + k)^n - C_0$$

where CF_t is the cash flow in year t , k is the risk-adjusted discount rate, n is the project life, and C_0 is the investment to be made at the start of the project.

Example

Calculate NPV of a project which costs \$250,000 and generates cash flow of \$63,000 a year for 5 years if the risk-adjusted discount rate is 11%.

Year	Cash flow	PV of cash flow
0	-250,000	-250,000
1	63,000	56,757
2	63,000	51,132
3	63,000	46,045
4	63,000	41,500
5	63,000	37,387
Sum of PV = NPV =		- \$17,159

Example

Calculate the NPV of a project that requires investment of \$500,000 and generates cash flow of \$200,000 a year for 4 years if the risk-adjusted discount rate is 12%.

Year	Cash flow	PV of cash flow
0	-500,000	-500,000
1	200,000	178,571
2	200,000	159,439
3	200,000	142,356
4	200,000	127,104
Sum of PV = NPV =		\$107,470

In the previous example, it is seen that the NPV is negative whereas, it is positive in the current example. Which of these projects is to be selected?

To understand this, let us consider what NPV means. In previous example, the project requires an investment of \$250,000 and the required rate of return is 11%. The PV of future cash flows discounted at 11% is equivalent to $(56757 + 51132 + 46045 + 41500 + 37387) = \$232,841$ or an investment of \$232,841 will provide the cash flow stream from the project if invested at 11%. This means the maximum one would invest to receive the project cash flows is \$232,841. Since this project requires an additional investment of \$17,159, the project should not be undertaken.

In the current example, the project requires an investment of \$500,000 and the required rate of return is 12%. The PV of future cash flows discounted at 12% is equivalent to $(178571 + 159439 + 142356 + 127104) = \$607,470$. This means the company needs to invest \$607,470 at 12% for 4 years to receive the same cash flow stream that the project provides. However, the company is able to invest only \$500,000 in the project to receive cash flow that is equivalent to the cash flow provided by an investment of \$607,470. Thus, net present value is \$107,470, which is the increase in value of the company.

The above discussion shows that any project that has negative NPV will be rejected and only positive NPV projects will be accepted.

The decision rule using NPV can be summarised as:

Accept a project if $NPV \geq 0$

Reject a project if $NPV < 0$.

If we consider independent projects, the decision rule will be:

Accept all projects, which have positive NPV.

For mutually exclusive projects the decision rule will be:

Accept the project that has the highest positive NPV.

Does the NPV criterion satisfy all the requirements?

- i) It considers time value of money as all future cash flows are discounted.
- ii) It considers risk, as the discount rate used is the risk-adjusted rate.
- iii) It considers all cash flows throughout the life of the project as all cash flows are discounted.
- iv) It shows the gain in value to shareholders, as NPV is the increase in value.

8.7.3 Internal Rate of Return (IRR)

Whenever an investment is made, the manager would like to know the return that the investment offers. If the investment offers a return that is higher than what is required for the investor, the investment would be undertaken. If the return from the investment is less than the required rate of return, the investor would not undertake the investment. This is the logic used in the internal rate of return criterion. Thus, use of internal rate of return requires the manager to identify the return from the project and the required rate of return from the project.

Consider an investment that costs \$100 and provides a cash flow of \$110 at the end of the year. The return from this investment can be calculated as:

$$110 = 100(1+r) \text{ or } r = (110/100) - 1 = 10\%$$

If the investment is for two years with cash flow at the end of year 1 being \$10 and at the end of year 2 is \$121, return from this investment can be calculated as:

$$100 = 10 / (1 + r) + 121 / (1 + r)^2 \text{ or } r = 10\%$$

In general, if the project provides a cash flow of C_t in year t with initial investment of C_0 and life of n years, we can write the relationship between C_0 , C_t and r as:

Note that the term $\sum_{t=1}^n \frac{C_t}{(1+r)^t}$ is the present value of future cash flows and C_0 is the current investment.

$$C_0 = \sum_{t=1}^n \frac{C_t}{(1+r)^t} \text{ or } \sum_{t=1}^n \frac{C_t}{(1+r)^t} - C_0 = 0$$

investment. Thus $\sum_{t=1}^n \frac{C_t}{(1+r)^t} - C_0$ is the net present value of the project when the cash flows are discounted at the rate r . If the net present value equals zero, we call the return that discounts the future cash flows as the internal rate of return or IRR. Thus, IRR is the discount rate used to calculate the present value of future cash flows which would result in net present value equal to zero, or:

$$\sum_{t=1}^n \frac{C_t}{(1+IRR)^t} - C_0 = 0$$

Example

Calculate the internal rate of return for a project that requires an investment of \$250,000 and provides cash flows of \$63,000 a year for the next 5 years.

$$\sum_{t=1}^5 \frac{63000}{(1+IRR)^t} - 250,000 = 0 \text{ or } IRR = 8.234\%$$

Example

Calculate the internal rate of return for a project that requires an investment of \$500,000 and provides cash flow of \$200,000 a year for the next 4 years.

$$\sum_{t=1}^4 \frac{200,000}{(1+IRR)^t} - 500,000 = 0 \text{ or } IRR = 21.862\%$$

How to Calculate IRR?

IRR can be calculated in many ways:

- i) One can use a trial-and-error method in which you assume a particular value of IRR, say 8% and calculate the NPV. If $NPV = 0$, IRR is the assumed value. If $NPV > 0$, the assumed value is too small and you can increase the value, say to 9% and recalculate NPV. If $NPV < 0$, the assumed value is too high and you decrease the value, say to 7.5% and recalculate NPV. Continue this process until you get $NPV = 0$ for a particular assumed value of IRR.
- ii) You can use a financial calculator that has IRR function.
- iii) You can use the IRR function in Excel.
- iv) You can use the solver function in Excel.

Required Rate of Return

Application of the IRR criterion requires the required rate of return from the project. The required rate of return for the project is also known as the opportunity cost. This means the manager is foregoing investment in other projects by making investment in this project. Thus, this project should provide a return that is at least equal to the return that can be earned from other projects. However, it is important to note that the manager needs to consider the risks of the projects too. When risks of projects are considered, required rate of return or opportunity cost is the return that can be obtained from projects of equivalent risk. Thus, required rate of return is the risk-adjusted rate.

Also, note that risk-adjusted rate is used in discounting cash flows when calculating the net present value.

The decision rule using IRR is:

Accept a project if $IRR > \text{required rate of return } (k)$

Reject a project if $IRR < k$

If we consider independent projects, decision rule is:

Accept all projects for which $IRR > k$.

If we consider mutually exclusive projects, decision rule is:

Accept the project that has higher IRR which is also larger than k .

In the previous example, IRR is calculated as 8.234%. This project would be accepted as long as the required rate of return is 8.234% or less. If the required rate of return were 11%, the project would be rejected.

Let us see how well IRR satisfies the requirements of the criteria:

- i) Considers time value of money, as IRR is the discount rate.
- ii) Considers risk as comparison is made between IRR and the risk-adjusted rate.
- iii) Considers all cash flows as we use all cash flows to discount.
- iv) Does not show the value increase even though IRR and NPV provide the same decision (as explained below). NPV criterion shows the change in value whereas IRR only indicates whether value will increase or decrease.

8.7.4 Decisions under NPV and IRR

In NPV, a project will be accepted if $NPV > 0$ and the discount rate used is k . In IRR, a project will be accepted if $IRR > k$.

Since IRR is the discount rate at which $NPV = 0$, if $IRR > k$, NPV using k as discount rate will be positive. This is because the discounted value of future cash flows will decrease if the discount rate increases. Thus, both NPV and IRR rules will always result in the same decision if the risk-adjusted return for the projects is the same.

Example

A company is considering mutually exclusive projects A and B. Project A has an $IRR = 12\%$ and project B has $IRR = 10\%$. However, Project A has a higher risk than Project B and risk adjusted required returns for project A is 13% and for project B is 9% . Which of these projects should be selected?

If one blindly uses IRR where the decision rule is to choose the project with higher IRR, project A will be chosen as it has a higher IRR of 12% . However, project A's required return is 13% and hence NPV will be negative. Therefore, project A should not be chosen. On the other hand, project B has a lower IRR of 10% but its $k = 9\%$ indicating NPV will be positive. Thus, project B should be chosen. Note that the decision rule is "choose the project that has higher IRR which is also higher than k ".

Example

A company is considering mutually exclusive projects A and B. Project A has an $IRR = 12\%$ and project B has an $IRR = 11\%$. The required returns for these projects are 10% and 8% respectively. Which of these projects should be chosen?

In this case, decision-making becomes complicated. Both projects have $IRR > k$. Should we choose A that has a higher IRR? If the k were the same for the two projects, then one can choose the project that has higher IRR. However, when k is different, it is not possible to make such a decision. In this case, the project that has higher NPV will be chosen.

Issues with IRR

- i) As was seen earlier; IRR is difficult to apply when the risks of the projects are different.
- ii) Some projects have multiple IRRs.

Example

Consider a project that requires an investment of \$235,000. The first-year cash flow is estimated as \$540,500- and second-year cash flow is estimated as -\$310,200. The second-year cash flow is negative because the firm needs to spend money to close the project. If we calculate NPV for different required rates of return, we will find that $IRR = 10\%$ or 20% as shown below:

Discount rate	NPV
0%	-4700
4%	-2085.8
8%	-483.54
10%	0
12%	299.75
16%	419.15
20%	0
22%	-378.93

When there are multiple IRRs, it is difficult to decide whether the project should be undertaken. If $k = 15\%$, project will be rejected for $IRR = 10\%$ while it would be accepted for $IRR = 20\%$.

Reinvestment Rate Assumption

One of the implicit assumptions in calculating the present value of future stream of cash flows is that all interim cash flows will be reinvested at the discount rate. In using IRR, we implicitly assume that the interim cash flows are reinvested at IRR. However, this assumption is not correct, as the appropriate reinvestment rate should be the required rate of return from the project, which is k . Therefore, the IRR should be calculated with k as the reinvestment rate for the interim cash flows. When IRR is calculated using k as the reinvestment rate, it is called modified IRR or MIRR.

Example

A company is planning to invest in a project costing \$500,000, which produces a cash flow of \$200,000 over the following 4 years. If the required return $k = 12\%$, calculate the MIRR.

Year	Cash flow	Future value @ end of year 4 (11%)
0	-500,000	-
1	200,000	280,986
2	200,000	250,880
3	200,000	224,000
4	200,000	200,000
Total		955,866

$$500000 = 955866 / (1 + IRR)^4$$

$$\text{MIRR} = 18.07\%$$

To calculate MIRR, find the future value of each interim cash flow at the end of the project using k as the compounding rate and sum all these future values. This is the value of all interim cash flows received at the end of the project. Then, MIRR can be calculated by equating the discounted value of this future cash flow to the current investment.

Example

A project requires investment of \$250,000 and produced a cash flow of \$85,000 every year for the next 5 years. If the required return is 10%, calculate NPV, IRR and MIRR.

$$NPV = \sum_{t=1}^5 \frac{85,000}{(1.1)^t} - 250,000 = \$72,217$$

$$IRR = \sum_{t=1}^5 \frac{85,000}{(1+IRR)^t} - 250,000 = 0 \text{ or } IRR = 20.76\%$$

$$\text{MIRR} = 15.73\% = \{[85000 (1.1)_4 + 85000 (1.1)_3 + 85000 (1.1)_2 + 85000] / 250000\}_{1/4} - 1$$

Summary

Financial planning is asset allocation in a wider sense and risk management at an individual level. It is about allocating finite resources between savings and consumption, and about identifying risks and managing them.

Within this framework, financial planners would need to advise clients on their allocation strategy for their savings. As planners, we need to explore the client's asset allocation to some extent wider than his immediate investment portfolio. In this Chapter, we learned about the basic concepts and theories used by planners in the quest to derive an efficient asset allocation strategy for their clients.

We started by identifying the various reasons that motivate people to invest, how investment risks and returns are measured and the strategies that can be used to minimize risks, thus establishing effective investment portfolios.

Then, we went on to discuss the various types of asset classes available for investment. Also mentioned were the features and characteristics of each of these asset classes and how each should be used to address the investment needs of clients. In addition, we covered the various forms of managed investments and briefly addressed their features and uses.

Finally, we compared the three investment selection criteria and discussed the appropriate decision rules are devised for each criterion. In summary, investment projects can be evaluated using:

- a) Payback period
- b) NPV
- c) IRR

Of all these, NPV is the most appropriate method, and the other three measures provide only supplementary information.

Chapter 9: Risk Management and Insurance Planning

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Introduction

Change is perhaps the only static constant within the dynamics of life; and risks always move in tandem in a changing environment.

Throughout our clients' life, they are confronted with numerous risks - failing health, financial losses, accidents and even fatalities. A crucial part of developing a financial plan for the client is the careful mapping of strategies for managing his personal risks and reducing the impact of financial loss should something unexpected happen to him or his loved ones.

This Chapter focuses on the identification of these risk situations and how to minimize their impact on a financial plan.

Learning Outcomes

1. Outline the various types of personal risk;
2. Define pure risks and the method used to minimize such risks;
3. Describe the risk management process;
4. Explain the various types of insurance policies that provide cover for life, disability, and income protection; and
5. Describe the way the insurance industry is being regulated.

Chapter 9 – Risk Management and Insurance Planning

9.1 THE CONCEPT OF RISK

We are all exposed to risks in our everyday lives. Driving a car, dining in a restaurant, crossing a busy street, owning a property, and sometimes even simple acts of faith such as breathing can carry significant risks. However, if managed properly, adverse events which may cause monetary losses can be anticipated and their consequences can be mitigated.

To the layman, the word ‘risk’ connotes uncertainty about an outcome of a given situation. In fact, risk does not necessarily equate with uncertainty and can be defined as: ‘a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for.’ When we refer to risk, we believe the distribution of outcomes is known (in terms of probabilities and statistics), whereas with uncertainty they are not.

Risk can be distinguished from peril, which is the actual or potential cause of loss (for example lighting or fire), although in practice the term ‘risk’ is often loosely used instead of ‘peril’. Risk and peril can both be distinguished from hazard, which is a condition that may create, decrease, or increase the chance of a loss arising from a given peril (for example, driving when visibility is poor as opposed to good).

Economists use the term Moral Hazard to refer to a situation where policy holders, either intentionally or through carelessness, add to the risks assumed by the insurer because they expect to be covered. For example, a person covered by illness insurance may choose not to return to work even though he is fit to do so.

Note that insurers define Moral Hazard slightly differently, to distinguish it from Morale Hazard. In insurance, Moral Hazard is the risk that a client will exaggerate the value of a loss, make up a loss, or even cause a loss event. Morale Hazard is the possibility we alter our behaviour because we are insured. In other words, Morale Hazard relates to carelessness rather than malicious intent.

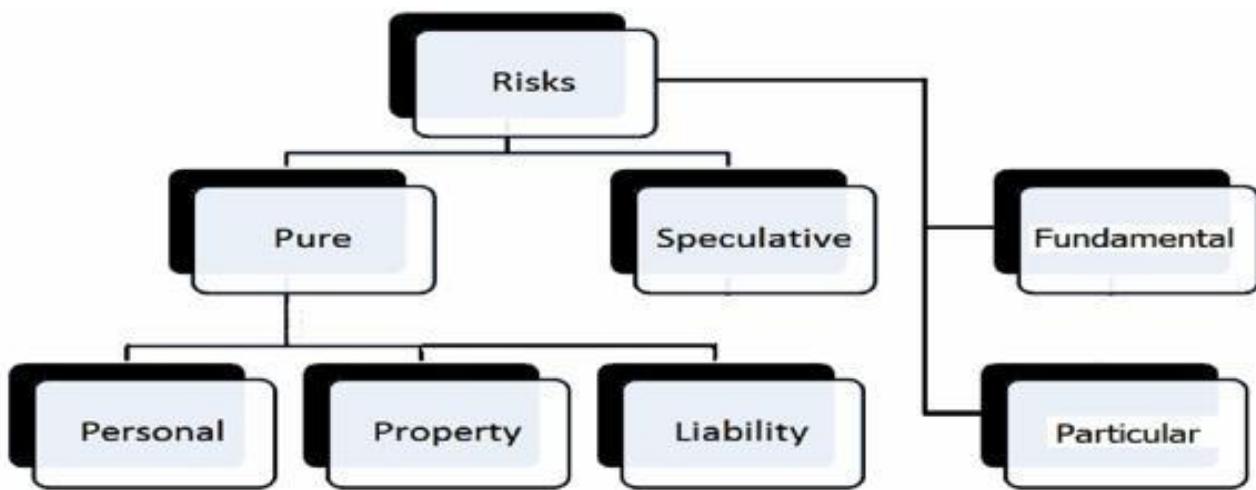
9.2 CATEGORIES OF RISK

For a risk to be insurable it does not need to be measurable, however, it does need to be related to a measurable financial loss, or to a valued loss, i.e., a loss on which a value has been placed.

The degree of risk should be distinguished from the magnitude of risk. The degree of risk is the probability of the adverse event occurring, whereas the magnitude of risk is the amount of the likely loss. For example, in mathematical terms the probability of a \$1,000 loss does not necessarily reflect a greater degree of risk than the probability of a \$10 loss.

Risks can be broken down into many categories, as shown in the following chart.

Categories of Risk



9.2.1 Speculative Risk

Speculative (dynamic) risk is a situation in which either profit OR loss is possible.

Examples of speculative risks are betting on a soccer match, gambling on a horse race, and investing in shares and real estate. Business establishments face decisions involving elements of risk daily. Matters like venturing into new markets, purchasing new equipment, diversifying existing product lines, expanding, or contracting areas of operations, increasing advertising expenditure, borrowing for additional capital, etc., all carry inherent risks.

The outcome of such speculative risk is either beneficial (profitable) or non-beneficial (loss). Speculative risk is uninsurable.

9.2.2 Pure Risk

The second category of risk is known as the pure or static risk. Pure risk is defined as a situation in which there are only possibilities of loss or no loss; as opposed to loss or profit in the case of speculative risk. The only outcomes of pure risks are: adverse (resulting in a loss) or neutral (with no loss). It is never beneficial.

The major types of pure risk include:

- personal risk
- property risk
- liability risks

9.2.2.1 Personal Risk

Personal risk is a risk that affects an individual directly. It includes the possibility of a loss or reduction in income, incurring of extra expenses, and elimination of financial assets. There are four major personal risks:

- Premature death

Premature death risk is defined as the risk of the death of the head of a household with unfulfilled financial obligations. These can include dependants to support, a mortgage to be paid off or children to educate.

- Old age

Old age carries a risk of insufficient income during retirement. When older workers retire, they lose their normal amount of earnings. Unless they have accumulated sufficient assets to draw upon, they would be facing a serious problem of economic insecurity.

- Poor health

Risk of poor health involves both catastrophic medical bills and the loss of the ability to earn income. The cost of medical health care has increased substantially in recent years. Loss of income further compounds financial instability.

In the case of severe long-term disability, apart from income loss and rocketing medical costs, a person also must deal with termination of employee benefits and depleting savings.

- Unemployment

The risk of unemployment is another major threat to most families. Unemployment can result from a business cycle downswing, economic changes, seasonal factors, and frictions in the labour market. Regardless of the cause, unemployment can create financial havoc in average families through loss of income and employment benefits.

9.2.2.2 Property Risk

Property risk is the risk of incurring property damage or loss resulting from numerous perils, for instance, fire, lightning, windstorms, hail, and other causes.

9.2.2.3 Liability Risk

Liability risk is another important type of pure risk. More than ever, we are living in a litigious society. One can be sued for any frivolous reason. One must defend oneself when sued, even when the suit is without merit.

9.2.3 Fundamental Risk

Fundamental risks are those risks that affect the entire economy or large numbers of people or groups within the economy. Examples of fundamental risks are high inflation, unemployment, war, and natural disasters such as earthquakes, hurricanes, tornadoes, and floods.

9.2.4 Particular Risk

Particular risks are risks that affect only individuals and not the entire community. Examples are burglary, theft, auto accident or dwelling fires. With particular risks, only individuals experience losses, and the rest of the community are unaffected.

9.2.5 Pure Risk vs. Speculative Risk

It is important to distinguish between pure and speculative risks for three reasons:

- First, when offer commercial, personal, and liability insurance policies, insurance companies in the private sector generally insure only pure risks. Speculative risks are not considered insurable, with some exceptions.
- Second, the law of large numbers can be applied more easily to pure risks than to speculative risks. The law of large numbers is important in insurance because it enables insurers to predict loss figures in advance. It is generally more difficult to apply this law to speculative risks for the purpose of predicting future losses. An exception is in gambling - casinos have no problems applying the law of large numbers in a very efficient manner.
- Thirdly, society may benefit from a speculative risk that may lead to a loss for an individual. Take this simple illustration: a computer manufacturer's competitor develops a new technology to produce computer processors which can work faster and are priced more affordably. As a result, the first computer manufacturer is pushed into bankruptcy. Despite the loss suffered by the first manufacturer, consumers benefit from the situation since the competitor's computers not only work faster but are sold at a lower price. On the other hand, society would be harmed if a pure risk is present, and a loss occurs. A simple example would be the case of an earthquake.

9.2.6 Fundamental Risk vs. Particular Risk

The distinction between a fundamental and a particular risk is important since government assistance may be necessary to insure fundamental risk. Social insurance, government insurance programs, and government guarantees, and subsidies are used to protect against certain fundamental risks. For example, the risk of unemployment is generally not insurable by private insurance companies, but it can be insured publicly by the government if the government chooses to do so.

9.3 Management of Risk

Risk management is the method used by individuals as well as organizations to manage activities whose outcomes cannot be forecasted exactly, for example, measures to reduce the risk of loss of lives, damage to physical assets, exposure to legal liability or injury to employees or customers.

The management of risk involves the following steps:

Management of Risk



9.3.1 Risk Identification

Management of risk begins with identifying potential risks. Risks are usually related to problems triggered by certain events. Hence, risk identification starts with the source of the problems, or with the problem itself.

9.3.2 Risk Assessment

Once the risks have been identified, the potential severity of loss and probability of occurrence must then be assessed. The degree and magnitude of a risk can either be easy to measure, as in the case of the value of a lost building, or impossible to know for sure, as in the case of the probability of an unlikely event occurring. Therefore, in the assessment process it is critical to make the best educated guesses possible, to prioritize the implementation of the risk management plan properly.

The fundamental difficulty in risk assessment is determining the rate of occurrence since statistical information is not available for every possible conceivable incident. Furthermore, evaluating the severity of the consequences (impact) is often quite difficult for intangible assets.

Asset valuation is another area that needs to be addressed. Thus, educated opinions and available statistics are the primary sources of information. Nevertheless, risk assessment should produce relevant information that will make it easy to understand the primary risks and hence, enable decisions to be prioritized.

9.3.3 Risk Treatments

Once risks have been identified and assessed, the techniques to manage the risks fall into one or more of these four major categories:

9.3.3.1 Risk Avoidance

Avoiding risk includes not performing an activity that could carry risk. An example would be not buying a property or business to not take on the liability that comes with it. Another would be not flying to not take any risk that might arise should the airplane be hijacked. Avoidance may seem the answer to all risks, but avoiding risks also means losing out on the potential gain that accepting (retaining) the risk may have allowed. Not undertaking a business to avoid the risk of loss also avoids the possibility of earning profits.

For businesses, preventive measures include the creation and implementation of sound policies to equip staff with appropriate guidance and continuous in-service training. The primary objective of loss prevention is to reduce the frequency of loss-causing events.

9.3.3.2 Risk Reduction

Risk reduction or “optimization” involves reducing the severity of the loss or the likelihood of the loss from occurring. For example, sprinklers are designed to put out a fire to reduce the risk of loss by fire. However, this method may cause a greater loss by water damage and therefore may not be suitable.

9.3.3.3 Risk Retention

Risk retention involves accepting the loss when it occurs. Self-insurance falls into this category. Risk retention is a viable strategy for small risks where the cost of insuring against the risk would be greater over time than the total losses sustained. Put in another way, if a person is very rich, such that the potential loss from a risk is small relative to the immense wealth of the person, risk retention may make sense.

All risks that are not avoided or transferred are retained by default. These include risks that are so large or catastrophic that they either cannot be insured against, or their premiums would be unfeasible. War is an example. Since most properties and risks are not insured against war, any resulting losses are retained by the insured. Also, any amount of potential loss (risk) over the amount insured is retained risk. This may also be acceptable if the likelihood of a sizeable loss is negligible or if the cost to insure for greater coverage is so great that it would hinder the goals of the organization considerably.

9.3.3.4 Risk Transfer

In the terminology of practitioners and scholars alike, the purchase of an insurance contract is often described as a “transfer of risk.” However, technically speaking, the buyer of the contract generally retains legal responsibility for the losses “transferred”, meaning that insurance is actually a post-event compensatory mechanism, to be described more accurately. For example, a personal-injury insurance policy does not transfer the risk of a car accident to the insurance company.

The risk still lies with the policyholder, namely the person involved in the accident. The insurance policy simply provides that in the event of the policyholder being injured during an accident, some compensation will be payable to the policyholder that is commensurate with his suffering/injury.

Risk transfer usually also means that individual damage is transferred to the collective (many policy holders) using the law of large numbers.

9.3.4 Risk Financing

The last stage of the risk management process is the determination of how risks should be financed. Risk financing involves the selection of a method or methods to pay for losses resulting from various risk exposures. The primary objective of undertaking risk management is to anticipate and protect the individual or business from incurring financial losses arising from unforeseen and untimely pure risk events.

9.4 TYPES OF INSURANCE

Next, we will discuss the various risk management tools and techniques available to help clients navigate their way through the minefield of life.

These tools include:

- Life Insurance
- Health Insurance
- Disability Insurance
- Annuities
- Property Insurance
- Liability Insurance
- Business Insurance

9.4.1 Life Insurance

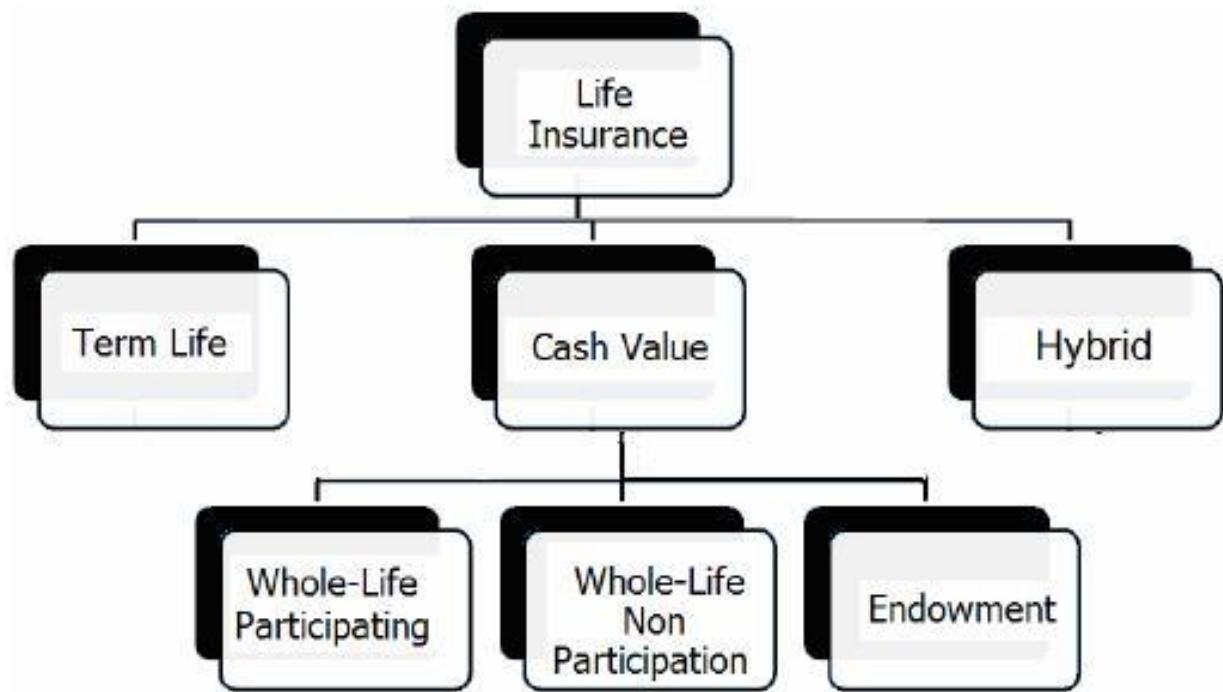
Life insurance is a contract between the insurer and the insured, where the insurer agrees to pay a lump sum of money upon the occurrence of the insured's death or other events such as terminal or critical illness. In return, the policy owner agrees to pay a stipulated amount of money, called the 'premium', at regular intervals or in lump sums.

The advantages of life insurance include:

- income replacement for survivors;
- investment/forced savings and possible collateral for financing facilities;
- reduced tax and transfer of tax liability;
- a ready source of cash;
- funding for buy/sell agreements and other business applications.

Life insurance can be divided into the following main categories: term insurance, cash value insurance, and hybrid insurance.

Categories of Life Insurance



9.4.1.1 Term Life Insurance

Term insurance provides a death benefit only, as such they are sometimes referred to as 'plain vanilla' insurance. Such a policy is for pure protection; it has no cash value component attached. The coverage for such policies runs for a specified term (such as a year) and may be renewed at the option of the insured for as long as he or she is willing to pay the premiums. While the most basic term is an annually renewable term, term policies are now written for much longer periods (5, 10, or 15 years). Although the cost of term insurance usually rises as the insured gets older, level-term policies are also available. These policies keep the premium at the same dollar amount throughout the term (although the premium would jump more sharply for the next term than would be the case of the year-to-year rise for an annual-term policy).

9.4.1.2 Cash Value Insurance

This type of policies provides a death benefit (term protection) and a savings feature. Cash value insurance (particularly at younger ages) is much more expensive than term, but typically provides cover throughout the insured's lifetime at a level premium.

A policyholder can normally receive the benefits of these cash values during his lifetime in one of two ways:

- by taking a loan against them, or
- by cashing in the policy (which will render the policy no longer in force, but the policyholder will receive the cash surrender value)

Examples of cash value life insurance are Whole-life Participating Insurance, Whole-life Non-Participating Insurance, and Endowment insurance.

9.4.1.3 Whole-life Participating Insurance

Whole-life participating insurance is a policy that offers a share of the profit of an insurance company in the form of bonus or dividend. The premium rate for participating insurance plans is more expensive than non-participating plans. Coverage for a whole-life participating insurance is extended to a person's entire life or up to age 80, 90 or 100 if premiums are paid. The sum assured amount, together with additional bonuses, are payable should death or permanent disability occur. Cash bonuses generated from the insurance fund can be used to pay future premiums, but such bonuses are not guaranteed as they depend on the performance of the insurance company. They can also be withdrawn upon retirement and serve as an additional retirement fund.

9.4.1.4 Whole-life Non-Participating Insurance

A whole-life non-participating insurance is like a whole-life participating insurance in many ways except that it does not generate cash bonuses.

9.4.1.5 Endowment Insurance

This type of insurance provides a lump sum of money, for example, in the form of maturity bonuses, surrender value, etc to you at the end of the policy period. Some endowment plans give regular cash payments at regular intervals during the term of the policy, and they have a guaranteed minimum surrender value. It is commonly used as a tool to save money for children's education or retirement income. The same amount of premium gives a lower protection compared to whole-life insurance (both participating and non-participating).

9.4.1.6 Hybrid Insurance: Investment-linked Policy

An investment-linked policy (ILP) is a hybrid which combines investment and protection. In an ILP, the customer is provided with a life insurance cover and the premium paid is invested in either debt or equity products or a combination of the two. In other words, it enables the buyer to secure some protection for his family in the event of his untimely death and at the same time provides him an opportunity to earn a return on premiums paid. In the event of the insured person's death, his nominees would normally receive an amount that is the higher of the sum assured (insurance cover) or the value of the units (investment).

However, there are some schemes which offer the policyholder the sum assured plus the value of the investments.

ILPs come with varying investment options, charges and conditions for withdrawals and surrender. Additionally, some schemes are tailored to suit different customer profiles and, in that sense, offer a wider choice.

The advantage of ILP is that since the investments are made for long periods, the chances of earning decent returns are high. Just as in the case of unit trust funds, consumers who are risk-averse can buy into debt schemes while those who have an appetite for risk can opt for balanced or equity schemes.

However, the charges paid in these schemes in terms of the entry load, administrative fees, underwriting fees, buying, and selling charges and asset management charges are fairly high and vary from insurer to insurer in quantum and also the manner in which they are charged.

The Key features of ILPs are:

- Premiums paid can be single, regular, or variable. The payment period too can be regular or variable. The risk cover can be increased or decreased.
- As in all insurance policies, the risk charge (mortality rate) varies with age. However, for individuals the risk charge is always based on the age of the policyholder in the year of the commencement of the policy. These charges are normally deducted monthly from the unit value. For instance, if there is an increase in the value of units due to market conditions, the sum at risk (sum assured less the value of investments) reduces and so the risk charges are lower.
- The maturity benefit is not typically a fixed amount, and the maturity period can be advanced (early withdrawal) or extended.
- The policyholder can switch between schemes (for instance, balanced to debt or gilt to equity). The investment risk is transferred to the policyholder.
- The maturity benefit is the net asset value of the units. The value would be high or low depending on the market conditions during the period of the policy and the performance of the fund manager. Thus, there is no capital protection on maturity unless the scheme specifically provides for it. There could be policies that allow the policyholder to remain invested beyond the maturity period in the event of the maturity value not being satisfactory.

Provisions and Terminology

Here are some of the most common provisions and terminology that may be found in life insurance policies:

- ***Acceleration of Benefits***

This is a provision in the insurance policy that permits the accelerated payment of benefits to a policyholder who suffers from life-threatening medical conditions (such as cancer, heart or kidney failure, or AIDS) that will likely lead to his or her death within a specified period, such as 12 months.

- ***Beneficiary***

When a policyholder dies, the proceeds will be paid to his beneficiary. If the policyholder dies without naming a beneficiary, the proceeds will be paid to his estate. This will unnecessarily subject the proceeds to probate. There are provisions relating to the nomination of beneficiaries in the Insurance Act 1996.

- **Participating Policies**

Participating policies are issued by insurance companies that are owned by their policyholders, rather than by shareholders. Unlike non-participating policies, participating policies pay dividends. Non-participating policies are life insurance policies issued by insurance companies that are owned by shareholders, rather than policyholders. No-participating policies do not pay dividends. Because of this, such policies normally have lower premiums, although, in the long run, participating policies may prove less costly.

- **Extended Insurance and Premium Waivers**

Cash value life insurance, but not term insurance, provides that if a premium is not paid within the specified time limit, the coverage may not be terminated. Instead, the insurance generally continues as term insurance for a limited period, which can sometimes run for several years, depending on the policy's accumulated cash value amount.

- **Guaranteed Insurability**

A guaranteed insurability rider gives the life insurance policyholder the right to purchase specified amounts of additional insurance at specified times. It is generally available only if the insured is below a certain age and is less readily available with term policies.

- **Riders**

A policy rider is a provision that is added to the basic coverage of an insurance policy, by agreement of the policyholder and the insurance company, often at additional cost. The double indemnity and the waiver of premium provisions are common policy riders.

- **Settlement Options**

Upon the death of the insured, unless another arrangement has been made, the insurance proceeds will be paid to the beneficiary in a lump sum. However, life insurance policies usually give the policyholder (or the beneficiary) the right to choose non-lump sum pay-outs, known as settlement options.

There are five common types of settlement options:

- **interest only;**
 - **fixed-period payments;**
 - **fixed-amount payments;**
 - **life income (annuity); and**
 - **joint and survivor life income (annuity).**
-
- **Dividends and Dividend Options**

Among life insurance policies, only participating policies pay dividends. These dividends are not like dividends on shares but are merely the non-taxable returns of some excess premium paid out by the insurance company based on lower-than-expected mortality expenses (fewer claims than expected) and administrative expenses, and/or higher than expected investment yields.

A participating policy normally offers five alternatives with respect to dividends:

- **cash payment to the policyholder**
- **application to reduce premiums**
- **accumulation by the insurance company for the policyholder's benefit**
- **application to purchase paid-up insurance**
- **application to purchase one-year term coverage**

9.4.2 Health Insurance

Hospitalization and Surgical (H&S) insurance is the major type of health insurance for Singaporeans. The major expenses covered under a typical H&S insurance are:

- Hospitalization expenses such as room & board charges for a bed;
- Intensive care;
- Surgical-related fees arising from hospitalization due to diseases and accidents (covering hospital supplies & services, anaesthetist's fees, in-hospital physician visits, etc);
- Pre-hospitalization treatments;
- Post-hospitalization treatments;
- Outpatient cancer treatment - chemotherapy, radiotherapy;
- Outpatient kidney dialysis treatments; and
- Organ transplant.

9.4.3 Disability Insurance

The likelihood that we may become disabled are higher than that of sudden death. However, more people have life insurance policies than disability policies.

Unlike a life insurance policy, which is primarily designed to provide a lump sum payment in the event of death, a disability policy provides income to an individual who is disabled because of an accident or illness. There are many kinds of disability policies. They differ in how liberally or restrictively they define disability, how much periodic income they pay, how long the claimant must wait for payments to begin (called the "elimination period"), and how long the payments will go on.

Personal Accident (PA) Insurance is a form of disability insurance. It offers a sum assured in the case of the death of an insured person due to an accident. It also provides for compensation in case of permanent and total loss of limbs or sight caused by an accident. Some insurers also cover the insured in case of death or permanent disability due to acts of terrorism. There are no maturity benefits available under this policy.

Another example of disability insurance is ElderShield. ElderShield is an affordable severe disability insurance scheme which provides basic financial protection to those who need long-term care, especially during old age. It provides a monthly cash pay-out to help pay the out-of-pocket expenses for the care of a severely disabled person. Singapore Citizens and Permanent Residents (PRs) with Medisave accounts are automatically covered under ElderShield at age 40.

9.4.4 Annuities

An annuity is sometimes referred to as an “upside-down life insurance policy.” With a life insurance policy, the policy owner normally pays a relatively small periodic amount now to get a large sum in the future.

With an annuity, one normally pays a larger amount now to get periodic payments (starting immediately or at some point in the future) over an extended period of time.

While a life insurance policy primarily protects dependants of the insured against the economic harm of premature death, an annuity is meant to protect the insured (and his dependants or children) from the economic harm of outliving his lifesavings and other resources.

Annuities are available in various forms:

- A deferred annuity is one in which purchase payments are made in a lump sum (single premium) or instalments, and annuity payments are to commence sometime in the future.
- An immediate annuity is one bought with a lump sum, with the annuity payments to commence immediately.
- A fixed annuity is one designed to assure the buyer of a lifetime (or other fixed period) of payments of a guaranteed fixed amount. The amount of these payments is based on the age of the annuitant (the person whose life the annuity is computed on) at the time the payments are to commence, the sex of the annuitant, and the rate of interest that the insurer will assume will be made from the purchase funds paid by the annuitant.
- A variable annuity (also known as a “market value account”) is one in which the insurer invests the premiums (less investment charges) in a portfolio of securities. The value of the annuity provided varies with the performance of the portfolio. The purchaser of a variable annuity does so in the hope that the performance of the underlying securities would outstrip the possible returns of a fixed annuity.

9.4.5 Property Insurance

Property insurance protects property against perils such as fire, flood, and theft. The basic forms of property insurance are:

- Homeowner’s policies
- Motor vehicle policies
- Personal property policies

9.4.5.1 Homeowner's Policy

A homeowner's policy protects the owner from the economic harm associated with home ownership, as well as other covered risks listed in the policy.

The most common type is the "comprehensive coverage" policy and here are some of the major risks it covers:

- damage to home and personal property caused by fire, lightning, wind, or storm damage;
- medical payments to occupants for injuries caused by fire, lightning, wind, or storm damage;
- medical and legal liabilities to persons injured by accident while in the home;
- loss or theft of personal property, even if not in the home, with some restrictions on things like jewellery or laptop computers;
- liability to others for accidental damage to their property, even if not in the home;
- liability for unintentional personal injury to others caused by the homeowner or his or her family;
- liability for intentional personal injury to others caused by the homeowner's children who are below a specified age;
- liability to others hurt because of the owner's participation in a sporting event (for example, accidentally striking someone with a golf ball while playing golf);
- liability for damage or injury caused by pets (but damage caused by exotic pets -- such as a cheetah -- will not be covered) ;
- damage caused by vandalism, riot, or civil unrest, and;
- damage caused by falling objects (such as tree limbs) ;

9.4.5.2 Motor Vehicle Policy

In Singapore, all motorists are required to have a specified amount of liability insurance. If the vehicle is financed through a bank or another commercial lender, the lender may require the owner to carry both collision and comprehensive property damage coverage.

Motor vehicle insurance has two main components: liability insurance and insurance for property damage.

Liability insurance is very important. It provides compensation to persons who are entitled to sue the owner for personal injuries, medical payments, loss of earnings, or damage to their property arising out of a motor vehicle accident.

Property damage insurance includes collision and comprehensive coverage, which compensates for damage to the vehicle, and assorted damage to it, caused by such things as fire, theft, and vandalism.

9.4.5.3 Personal Property Policy

Personal properties such as home furniture, electronics, appliances, clothes, and jewellery, can be insured through personal property insurance. This insurance covers damage to properties due to a fire, theft, or other catastrophes. Coverage usually extends to the personal property of family members residing in the same household.

9.4.6 Liability Insurance

Liability implies negligence. If you permit a hazard to exist, you are negligent. An example is neglecting to remove the rubbish and debris from your sidewalk. If someone is hurt as a result, you can be sued.

But these days, no matter how diligently you remove all possible hazards, you may still be vulnerable to suits for accidents arising from the carelessness of a third party. Liability insurance is your last line of defense against devastating claims for things over which you may have little or no control.

The general classifications of liability insurance are listed below.

- Comprehensive General Liability
- Product Liability
- Umbrella Liability
- Professional Liability (Malpractice)

9.4.6.1 Comprehensive General Liability

Comprehensive general liability coverage protects a person from payments required to be made as compensation for bodily injury or property damage to a third party, for medical expenses accruing to the underlying incident, for the cost of defending lawsuits including investigations and settlements, and for any bonds or judgments required during an appeal procedure.

9.4.6.2 Product Liability

Product liability insurance protects manufacturers and sellers from prosecution against any damage caused using their product(s). If the manufacturer, distributor, or merchant who sold the product is sued, the insurance handles the payment of any amount awarded by the court, thus averting financial loss to the defendant.

9.4.6.3 Professional Liability -- Malpractice Insurance

This type of insurance is called a variety of names: malpractice insurance, professional insurance, and errors and omissions protection. Regardless of the name, the coverage is designed to help professionals manage the risks associated with making a costly mistake. For example, suppose you are a financial planner and has committed an error that caused a client to lose valuable assets. A professional insurance policy could cover the costs of the client's losses.

9.4.7 Business Insurance

If a person owns a small business or if he is considering going into business for himself in the future, it is important for him to consider what unique risks this activity might bring into his life. There are many levels of insurance than can protect him from various business risks and, although they can be much more complex than personal lines of insurance, they are well worth taking the time to understand.

Like a comprehensive homeowner's policy, a business owner's policy protects against economic losses caused by damage to the business owner's property and by legal liability to others for bodily injury and property damage.

9.5 PRICING AND MORTALITY

The determination of prices or rates is based on scientific principles. It is a science that rests upon hundreds of years of study, record-keeping, and constant checking.

In some industries, the determination of prices is relied on the rule of thumb. Within certain limits, prices are fixed largely based on competition. But this is not so in the life insurance industry.

The fundamental principle of life insurance is the sharing of the risk of death by the members of a group. People can do better collectively than individually. After centuries of struggling with the problem of risk, people finally learned that the financial loss incidental to death can be distributed among the members of a group in such a way that the loss would fall lightly upon each one in the group, rather than heavily upon the families of those who have died.

The rate which must be paid by each member of the insuring group cannot be determined until the average age at which members of the group die is known (mortality studies).

The statistics of the rate of death, compiled from all ages, are known as the mortality tables. The data is based on the mortality figures of very large groups of people, accumulated over long periods of time. Mortality tables are based on experience, and disruptions of the trend, such as new medications, can cause drastic risk for insurance companies and in turn affect the credit risk of insurers.

The price you pay for an insurance policy is called the premium. Premiums are determined by three factors, namely:

- the mortality rate,
- the management expense, and
- the interest factor (for example, the investment yield from the life insurance fund)

9.6 MAIN PRINCIPLES OF INSURANCE

There are several principles that govern what is insurance and what isn't.

These are the basic principles of insurance:

9.6.1 Utmost Good Faith

Since insurance shifts risk from one party to another, it is essential that there be utmost good faith (Uberrimae Fides) and mutual confidence between the insured and the insurer.

In a contract of insurance, the insured knows more about the subject matter insured in the contract than the insurer. Consequently, he is duty-bound to disclose accurately all material facts, and nothing should be withheld or concealed.

Any fact is material, which goes to the root of the contract of insurance and has a bearing on the risk involved. It is only when the insurer knows the whole truth that he is in a position to judge whether he should accept the risk and what premium he should charge.

When buying insurance, it is the duty of your client to disclose all material facts to the risk being covered. This obligation operates at the times of inception, renewal, and any point midterm.

9.6.2 Indemnity

Indemnity is monetary compensation that aims to return the insured to the same financial position he enjoyed before the loss occurred. Indemnity is probably the most fundamental principle of insurance. This principle plays a critical role in general insurance. Indemnity is easily applied to losses that are quantifiable. Life insurance and personal accident policies are therefore not contracts of indemnity.

With contracts of indemnity, a claim must not exceed the actual loss. Furthermore, a claim cannot exceed the extent of the claimant's insurable interest in the insured asset. Let's assume that two people are co-owners of a property. The property is shared equally. One owner is not entitled to insure more than half the value of the property under normal circumstances. This is because one owner's interest in the property is limited by his share of the ownership.

9.6.3 Subrogation

Subrogation refers to the right of an insurer who has paid a claim to step into the shoes of the insured so as to exercise in his name all rights he might have with regard to the recovery of the loss, which was the subject of the relevant claim paid under the policy, up to the amount of that paid claim. The insurer's subrogation rights may be qualified in the policy.

In the context of insurance, subrogation is a feature of the principle of indemnity and therefore only applies to contracts of indemnity. It does not apply to life assurance or personal accident policies. It is intended to prevent an insured recovering more than the indemnity he receives under his insurance (which represents the full amount of his loss) and enables his insurer to recover or reduce such loss.

9.6.4 Contribution

Where there are two or more insurance policies covering one risk, the principle of contribution comes into play. The aim of contribution is to distribute the actual amount of loss among the different insurers liable for the same risk under different policies in respect of the same subject matter. Any one insurer may pay to the insured the full amount of the loss covered by the policy and then be entitled to contribution from his co-insurers in proportion to the amount which each has undertaken to pay in case of loss.

In other words, the right of contribution arises when:

- there are different policies which relate to the same subject-matter;
- the policies cover the same peril which caused the loss;
- all the policies are in force at the time of the loss; and
- one of the insurers has paid to the insured more than his share of the loss.

9.6.5 Insurable Interest

If an insured wishes to enforce a contract of insurance before the Courts he must have an insurable interest in the subject matter of the insurance, which is to say that he stands to benefit from its preservation and will suffer from its loss. In non-marine insurance, the insured must have insurable interest when the policy is taken out and at the date of loss giving rise to a claim under the policy. This requirement may not be mandatory in other countries depending on the policy and the jurisdiction.

9.6.6 Proximate Cause

An insurer will only be liable to pay a claim under an insurance contract if the loss that gives rise to the claim was proximately caused by an insured peril. This means that the loss must be directly attributed to an insured peril without any break in the chain of causation.

For example, a man fell from a horse and sustained injuries that prevented him from moving. As a result, he contracted pneumonia due to lying in the cold and died. The proximate cause of his death is held to be the fall, not pneumonia.

9.7 THE INSURANCE INDUSTRY IN SINGAPORE

9.7.1 Industry Structure

Singapore has one of the most open insurance markets in the world. On 17 Mar 2000, Monetary Authority of Singapore (MAS), which is overall responsible for the development, supervision, and regulation of the insurance industry, opened the market fully to foreign insurers and removed the 49% limit on foreign shareholdings.

Insurers may provide insurance service in Singapore as registered insurers, authorized reinsurers, or foreign insurers. Registered insurers are approved under Section 8 of the Insurance Act (Cap 142) (“the Act”) to conduct life and/or general insurance business in Singapore. They can be registered as direct insurers, reinsurers, or captive insurers.

In addition to the registered insurers, reinsurers without an operating presence in Singapore can conduct reinsurance business in Singapore as authorized reinsurers under Section 8A of the Act. Such reinsurers may be authorized as general reinsurers and/or life reinsurers.

Foreign insurers are approved under the law of another country or territory to carry on insurance business in that country or territory. These insurers operate in Singapore under a foreign insurer scheme established under Part IIA of the Act. Currently the Lloyd’s Asia Scheme is the only foreign insurer scheme in Singapore.

Finally, there are quite a number of direct insurance and reinsurance brokers based in Singapore, who play a critical role in intermediating insurance business for the region. Beyond the intermediating role, the brokers also provide sophisticated risk advisory services.

Registered Insurance Financial Institutions in Singapore as at 10 Apr 2021

Refer to the [Monetary Authority of Singapore \(MAS\) website](#) for the list of Registered Insurance Financial Institutions in Singapore

Registered Insurers

- Direct Insurers

Direct life insurers are registered to write life policies as well as long and short-term accident and health policies. Direct general insurers are registered to write all insurance business other than insurance business concerned with life policies and/or long-term accident and health policies.

Direct general insurers include the specialized insurers such as marine mutuals that specialize in protection & indemnity and other marine insurance policies as well as insurers specializing in credit and political risk insurance and financial guarantee insurance.

Direct composite insurers are registered to conduct both life and general insurance businesses.

- Reinsurers

Reinsurers can be registered to carry out life reinsurance and/or general reinsurance business in Singapore. They are not permitted to write direct business and are only allowed to assume all, or one part of the insurance or reinsurance risk written by another insurer.

- Captive Insurers

A captive insurer is registered to insure the risks of its parent and related companies as defined under section 6 of the Companies Act (Chapter 50).

Authorized Reinsurers

An overseas reinsurer may apply for authorization in respect of life and/or general reinsurance business. Once authorized, they are allowed to solicit business and collect premiums from insurers in Singapore.

Lloyd's Asia Scheme

The Lloyd's Asia Scheme is a foreign insurer scheme established under Part IIA of the Act. This scheme seeks to replicate in Singapore the Lloyd's of London insurance marketplace. Lloyd's members may carry on insurance business in Singapore through locally incorporated service companies, which are registered with the Administrator of the scheme. Lloyd's of London (Asia) Pte Ltd is the approved Administrator of the scheme.

Insurance Brokers

Insurance brokers are registered under the Insurance Act. They may carry on insurance business in Singapore as an agent of insured persons/parties or intending insured persons/parties in respect of insurance policies relating to general business and long-term accident and health policies, as well as reinsurance of liabilities under insurance policies relating to life business and general business.

9.7.2 Industry Performance

According to the Life Insurance Association (LIA) in their report published on 09 Feb 2021, the life insurance industry ended 2020 with a 3 per cent over the previous year. Four consecutive quarters of gains enabled the life insurance industry to achieve \$4,383.1 million of weighted new business premiums for the year 2020, up from \$4,253.6 million. (The weighted new business premium figure is calculated as 10% SPI + 100% API with adjustment for premium payment terms of less than 10 years.) The total sum assured for new business stood at \$116.2 billion for YTD 3Q2020, up by 13 per cent over the last year.

The total new business premium for Health Insurance for 2020 amounted to \$377.7 million. The bulk of this - 88 per cent (\$331.2 million) - went to Integrated Shield Plans and riders. The remaining 12 per cent (\$46.5 million) comprised of other medical plans and riders. In total, 2.82 million lives – approximately MediShield Life. 69 per cent of Singapore residents – are protected by IPs and riders.

As the main avenue of distribution, tied agents contributed to nearly half of the new business, bringing in 44.8 per cent of weighted new business sales for the year. The bancassurance channel accounted for 8.7 per cent of sales. Financial Advisers contributed 24.7 per cent and online direct channels contributed 14.2 per cent whilst other channels, including direct sales, made up the remaining 7.6 per cent.

Participating (“par”) products accounted for 42 per cent of new sales while non-par products accounted for 38 per cent. Investment-linked products made up the remaining 20 per cent.

Retirement policies decreased by 25 per cent in YTD 3Q2020 compared to the same period last year.

As of 30 September 2020, insurers holding “Normal” licenses contributed for 98 per cent of new sales, while “Defined Market Segments” (DMS) insurers made up for the remaining two per cent of new sales for YTD 3Q2020.

Up to end December 2019, the life insurance industry paid out a total of \$3,147.4 million to policyholders and beneficiaries. Of this, \$1,623.7 million was in respect of death, critical illness, or disability claims. The remaining \$1,523.7 million was for policies that endowment that were payouts for anticipated endowments or annuities, policy maturity, surrender of policies and cash bonuses.

9.7.3 Protection Gap Study

The 2017 Protection Gap Study commissioned by the LIA and published on 26 Apr 2018 indicated that there has been an increase in the absolute amount of Protection Needs and Gap over the last 5 years. However, the Protection Gap, as a ratio of Average Income has stayed constant, reflecting corresponding increases in wages, savings, and insurance coverage. The Critical Illness (CI) Protection Gap was newly added to the analysis.

The key findings are:

- A working adult with at least one dependant requires an average protection need of S\$739,000, which is approximately 9 times of his or her annual salary
- A working adult with at least one dependant requires an average CI protection need of \$316,000 which translates to about 3.9 times the average annual pay of \$81,663.
- A working adult would likely have coverage of about \$342,000 while CPF savings account for \$94,566 and savings of \$132,566.
- The insurance protection gap for death works out to about \$170,000 or 2.1 times annual income.
- The largest mortality gap is among young working adults aged 20 to 34.

Compared to the 2012 study, Life Insurance coverage of Term products as a percentage of total Life Insurance cover has increased from 17% in PGS 2012 7 times from S\$3 billion in PGS 2012 to S\$23 billion in PGS 2017.

Simple Life Insurance Needs Calculation & Planning

Advise clients on suitability, adequacy and quality of insurance coverage and recommend appropriate life insurance products to help clients manage risks effectively

If there is one question financial planners get asked the most regarding life insurance it's, "How much life insurance do I need?" or "How much life insurance should I purchase?"

This is an important question that needs answering. On the one hand, most of us tend to see insurance as a necessity and may not wish to purchase more than it is objectively required. On the other hand, it is almost a universally recognized fact that under insurance seems to be the norm in most developed population.

Often husbands, wives, mothers, and fathers put off the decision to purchase life insurance because they are unsure of how to answer question how much they need. If this question can be addressed, it will give those individuals who are putting off the decision to purchase life insurance more ammunition to make an informed decision.

Simple Life Insurance Needs Calculation:

Method #1: 10 Times Your Income

This is the simplest and oldest method of determining how much life insurance one could acquire to protect their income for their dependents. The thought behind this method is that if a breadwinner were to pass-away their family would be able to make ends meet if they acquired enough capital to cover the breadwinner's annual income for 10 years (some prefer to estimate 15 or 20 times annual income).

Example:

Martin, age 35 has an annual income of \$60,000. At the start of the financial engagement, he asked you what an approximate amount of the life insurance he should consider purchasing. You could advice that he starts considering from \$600,000.

One of these rules of thumb is taking out life insurance coverage equal to five to 10 times annual salary. To many of us, that sounds like a lot of money. It's only when you get into the details of figuring out how people use money over time that you realize that five to 10 times salary can be a conservative estimate.

Martin is likely to have a young family, thus 10x is merely a starting point for him to consider. The younger his family the higher the multiplier he may wish to apply such as 15 or 20 times. Further, if he wishes to set aside education funds for his children or cater additional retirement funds for his spouse. Further, even if Martin would like to purchase his desired amount of life insurance, he would need to determine if he can afford the premiums with the type of life insurance he wants.

A suggested multiplier range is as follows:

Age	Multiplier Factor For Annual Income	
	Lower Factor	Upper Factor
20 – 30 years	5	10
30- 40	15	20
40 – 50	10	15
50 – 60	5	10

Method #2: (10 x Income) + Mortgage Balance

This is yet another simple method of determining how much life insurance someone could buy to protect their family's income. It is simply taking method #1 mentioned above and adding home mortgage balance to the total. The thought behind this is that if something were to happen to a parent the family left behind would receive enough cash to pay off the family's home so that they may live free and clear of rent or mortgage obligations.

The benefit over method #1 is that since the family has paid off their mortgage, they are then left with the entire benefit amount of 10x the income of their passed income earner. This allows them to use the entire amount of lost income towards other life necessities rather than mortgage and rent.

Method 3: Income Replacement Approach

Simply put, this method says that for the number of years left for retirement, you and/or your family need annual income each year to live their life. So, suppose you are 40 years of age and will retire at 60 and your current annual income is \$100,000. The calculation will be $100,000 * (60-40)$ as the life insurance requirement. This is much like the multiplier approach in Method 1. In this case the multiplier is determined by the number of years to retirement.

Method 4: Premiums as Percentage of Income

6% of gross income + 1% for each dependent as premium

This method uses premiums as a rule of thumb approximation to arrive at the amount of life insurance needed. This rule says that...

6% of breadwinner's gross income + 1% for each dependent

should be spent on life insurance premiums. So, if you have an annual gross income of \$5,000 and have your wife and 1 child as dependents, then your life insurance needs are calculated as

$$(6\% * \$5,000) + (1\% * \$5,000 * 2) = \$300 + \$100 = \$400 \text{ per month}$$

There is more detailed computation of life insurance needs such as the Human Value approach or the Needs Based method. These will be taken up in detail in Module 2 – Risk Management & Insurance Planning.

Example:

Jensen, age 35 is married and has 2 boys aged 2 and 5. He works in a bank and takes home a monthly salary of \$7,500. His wife looks after the children full time but does some freelance writing. Jensen tells you he has life insurance covering about \$300,000. He asked you on a brief face-to-face lunch meeting how much life insurance he would need given his profile. What additional information would you ask Jensen before you do a quick calculation on how much additional life insurance he should consider purchasing?

Some facts to find out from Jensen:

1. What are his outstanding liabilities especially mortgage?
2. What are his aspirations for his wife and children? For instance, would he like to set aside some funds for his children education and/or a lump sum gift for his wife, etc?

Jensen told you he would like to ensure his outstanding mortgage of \$350,000 is fully paid in the event of untimely death. He also would like to factor in \$150,000 each for his boys for education funding and a gift of \$200,000 for his wife to investment for retirement.

The financial adviser can begin first with the required coverage amount for his family and mortgage first: $\$150,000 + \$150,000 + \$200,000 + \$350,000 = \$850,000$

The remainder coverage is beginning with replacing 10 years of Jensen's income:

$$10 \times \$7,500 \times 12 \Rightarrow \$900,000$$

$$\text{Subtract existing life insurance: } \$900,000 - \$300,000 = \$600,000$$

Thus, the amount of life insurance you can recommend Jensen to begin considering in a reasonable manner would be \$1,450,000. Of course, with a fuller and more complete information from Jensen, this amount can be more precise.

Summary

Insurance provides coverage for pure risks, which are risks associated with situations where there is a loss or no loss.

The risk management process provides a framework for analysing a client's position, identifying the pure risks that exist and the cost of those risks. The process then leads to the selection of appropriate insurance policies to meet the cost of those risks should they ever occur.

A range of insurance policies provide the necessary cover to meet most of the identified risks. Life insurance policies will meet the costs associated with premature death. Disability policies will provide lump sum amounts to meet the costs that result from severe disablement or conditions such as strokes, heart attacks and similar disabling illnesses. General insurance policies provide cover for loss or damage to the insured's house or its contents, or to cars or other assets. Liability insurance policies will meet the costs of legal actions brought against the client for injury caused to others or damage to their property for which the client has a legal liability.

Pure risk losses do not occur frequently, but when they do, the amounts involved and the disruption they could cause can be devastating. Careful analysis of the risks and selection of suitable insurance can minimize the impact of such losses.

Chapter 10: Retirement Planning

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Introduction

One of the major components of the personal financial planning process is retirement planning. After all, most people want to have enough money to retire comfortably. In addition, many also want to retire early. However, a major proportion of the money they presently have or earn are usually spent on more things like food, a roof over their heads, their children's needs, vacations, cars, and other daily necessities.

In addition, for many people, retirement seems so distant that they tend not to focus on saving for it, especially when they're still young. As financial planners, we should educate our clients on the importance of starting early in planning for retirement.

In general, most clients approaching retirement seek:

- a steady, secure income stream which allows them to maintain their desired lifestyle;
- access to funds to do the things they had put off throughout their working life, like trips, new cars, a new home or helping their children financially;
- access to government benefits; most people like to receive something for nothing and there is an expectation that after paying taxes all their lives, they should be entitled to some 'reward'; and
- simplifying their financial affairs so that they can enjoy their retirement.

Working within the 'comfort level' and resources of the client, the recommendations a planner makes must be targeted at helping the client achieve as many of their stated objectives as possible.

In this Chapter, we will highlight issues that will help you gain some insight into the retirement planning processes.

Learning Outcomes

1. Understand the importance of retirement planning for the pre-retirement accumulation period and the actual retirement period when the funds will be used.
2. Demonstrate the ability to provide a client with an evaluation of retirement needs.
3. Explain the features of the Employees Provident Fund.
4. Explain types of defined contribution and defined benefit qualified plans.
5. Compare personal savings plans used in the retirement planning process.
6. Explain investment options for retirement.

Chapter 10 – Retirement Planning

10.1 RETIREMENT PLANNING NEEDS

Retirement needs can be described as the amount of money required (annual, monthly, etc.) during retirement to maintain a certain lifestyle. How much clients require will depend on their own situation. However, it is generally safe to assume that a retiring client would want to maintain a standard of living that is comparable to his current lifestyle.

In most cases, it is also safe to assume that the client may have to make certain adjustments to his current lifestyle to achieve the standard of living he's aiming for during retirement.

Some of the adjustments the client will typically make are:

- Reduced savings – he probably will not be saving during retirement.
- Reduced taxes – taxes will be reduced if he is not “earning” income.
- Reduced work-related expenses – these include commuting, work clothes, etc.
- Reduced monthly expenses – ideally, if he has paid off the housing loan on his primary residence, he will not have a monthly housing loan payment to service.
- Increased travel and entertainment – during retirement the client may travel extensively, eat out more often and indulge in some of the recreational activities (like golf) that he didn’t previously.
- Increased medical expenses – like most people, as the client gets older, he will tend to need the services of physicians more often than when he was younger.

Each client will have their own circumstances that will dictate what their own unique retirement needs are. Before we proceed to determine the amount of money a client may need for his retirement, let's discuss the retirement styles one might want to have during retirement.

10.2 CHOOSING A RETIREMENT LIFESTYLE

For most clients, lifestyle is the most important factor determining how much money they would need to retire comfortably. Would they want to work part time, pursue a hobby, volunteer, or travel frequently? Each of their activity choice could lead to either adding to or taking away from their savings.

Clients will have to ponder further and decide the level of comfort they would like to enjoy in their golden years. Their decisions will have a huge bearing on their retirement plan.

These general categories can be used as guidelines in determining the type of lifestyle your clients may want to live:

- Moderate: 60 – 70% of their pre-retirement income will be required in retirement
- Comfortable: 70 – 85% of their pre-retirement income will be required in retirement
- Well: 85 – 100% of their pre-retirement income will be required in retirement

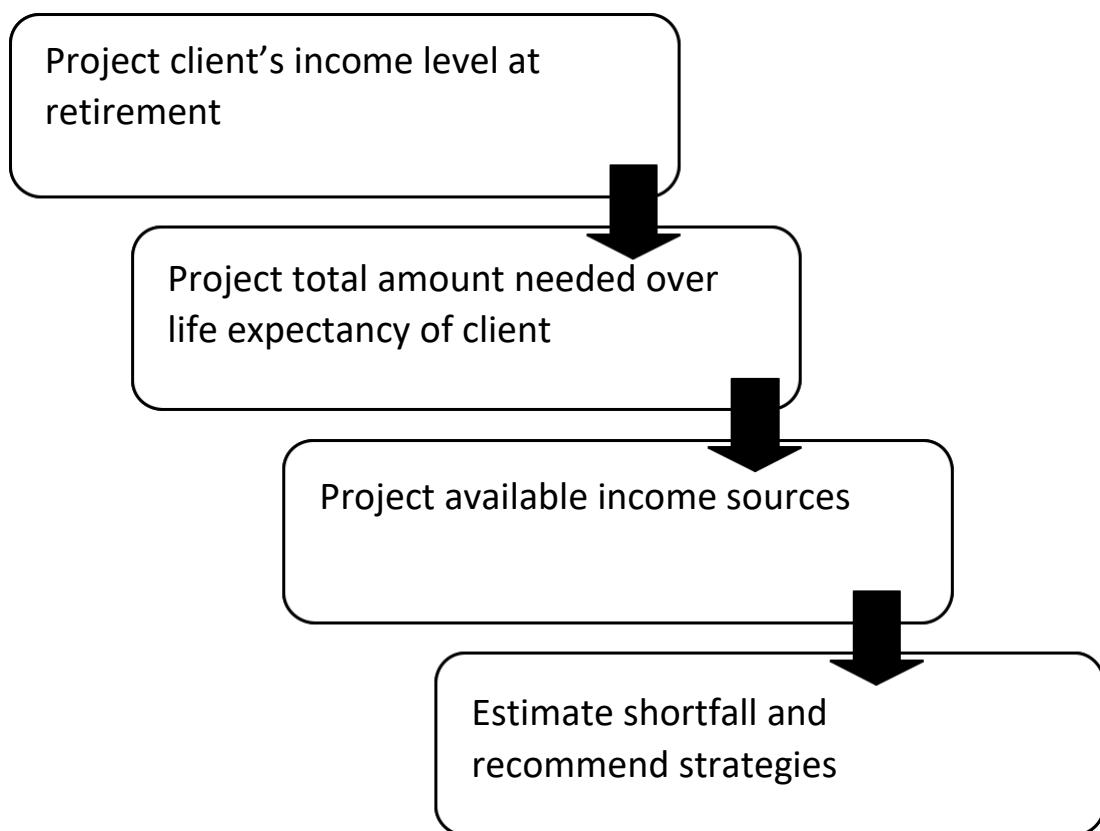
The most insidious force eating away at savings is inflation. Inflation is expected to rise every year. Most people begin their retirement thinking that everything is fine, only to run out of money later due to increased costs of living. Since historically inflation has averaged 3-4% per year, planners should advise their clients to have their income increase by about 3-4% during retirement. If you think about it using the rule of 72, at 3.5% inflation per year, costs will double over a 20-year period! When calculating projected expenses in retirement, it is important to adjust the numbers to factor in the effects of inflation.

10.3 ESTABLISHING INCOME NEEDED AT RETIREMENT

Planners often follow a standard sequence when forecasting clients' retirement needs.

For example:

- First, project the desired income for the first year of retirement.
- Then, adjust the desired income for expected annual inflation and project it over the client's life expectancy.
- Next, project the income sources available to meet the estimated expenses and forecast each year's surplus or shortage.
- Finally, calculate a present value (as of the retirement date) for any shortages and develop a savings plan to provide the additional required funds.



10.4 ESTIMATING THE DESIRED INCOME LEVEL

To project the desired income for the first year of retirement, planners may either use the Replacement Ratio Method or the Expenses Method.

10.4.1 Replacement Ratio Method

The replacement ratio is the percentage of working income that a client will need to maintain the same standard of living in retirement, usually 60 – 100 per cent, according to the type of lifestyle he wants.

To calculate the pre-retirement income level which the client will need at retirement, the planner should:

- start with the client's current income, subtract what the client pays in taxes and other investment, and
- then multiply by the income replacement ratio that corresponds with the client's current lifestyle.

$$\left(\begin{array}{c} \text{Current} \\ \text{Income} \end{array} - \begin{array}{c} \text{Deductions} \\ + \\ \text{Other} \\ \text{Investment} \end{array} \right) \times \text{Income} \text{ Replacement} \text{ Ratio} = \text{Required} \text{ Retirement} \text{ Income}$$

Example: Replacement Ratio Method

Let's say that the client has a total annual income of \$100,000. He pays \$30,000 in taxes and contributes \$5,000 every year towards his investment portfolio. For a comfortable lifestyle, the client chooses a 70% pre-retirement income level. The amount of retirement income required will be \$45,500.

$$\left(\begin{array}{c} \$100,000 \\ - \\ \$30,000 \\ + \\ \$5,000 \end{array} \right) \times 70\% = \$45,500$$

Assuming that the client is 35 years old today and plans to retire in 20 years' time, the level of retirement income per annum will grow to \$82,178.06 if the average rate of inflation is 3% per year.

$$\$45,500 (1 + 0.03)^{20} = \$82,178.06$$

The problem with the Replacement Ratio Method is that we cannot be sure that the client's yearly expenses in retirement will be less than what they are presently. Nonetheless, it is a common way to get started.

10.4.2 Expenses Method

This method is used to estimate after-tax retirement income in current value by adjusting current expenses for changes expected in retirement. This method is obviously more cumbersome to calculate but it is a more accurate measure than the Replacement Ratio Method detailed above. As an example, the client may be paying a housing loan now, but he expects to be housing loan free by retirement. In such a case, you should adjust the amount of his housing loan accordingly.

Example: Expenses Method

Your clients, Mr & Mrs Thamarajah, are a couple both 50 years old and are expecting to retire in 5 years. Their pre-retirement expenses are segregated into four groups: taxes, basic living, leisure, and health care (the model could incorporate additional categories of expenses). The couple's current annual expenses as well as their projected expenses, using the inflation rate appropriate to each expense category, are shown in table below.

Expenses at Time of Retirement at Age 55

Type Of Expenses	Expenses At Age 50	Yearly Growth Rate %	Expenses At Age 55
Taxes	28,000	3	32,452
Basic Living	36,000	3	41,724
Healthcare	6,000	7	8,418
Leisure	5,000	7	7,105
Total	75,000		89,609

Based on the above computation, the current annual expenses of Mr and Mrs Thamarajah will grow to \$89,609 in the year of retirement.

How Much Does Your Client Need for Retirement?

Next, we can establish the total amount your client will need at retirement. This can be obtained by adjusting the desired income for expected annual inflation and projecting it over the client's life expectancy.

Example: Retirement Capital Need Analysis

Using the desired level of income obtained from the Replacement Ratio Method above, i.e., \$82,178.06 and assuming that the inflation-adjusted rate on investment is 8%, what is the amount needed by the time he retires is as follows:

The amount needed by the time he retires is as follows:

Life Expectancy - Years after Retirement	Total Amount Needed (Today's Value) (\$)
40	1,058,336.92
30	999,154.22
20	871,383.21
10	595,535.19

The analysis assumes that at life expectancy (the last year of retirement), the balance in the savings account is zero. Also, all assumptions need to materialize as expected. Finally, the analysis assumes that each withdrawal that occurs during the retirement years is at the beginning of the year.

10.5 SOURCES OF INCOME DURING RETIREMENT

For many retirees, their concern may be: what income sources would they have during their retirement?

Income during retirement usually comes from the following:

- Central Provident Fund (CPF)
- Other pension schemes
- Personal savings and investments
- Other sources of funds.

We shall now explore these sources of retirement income.

10.5.1 Central Provident Fund (CPF)

CPF is a significant source of retirement income for most Singaporeans and PRs – every paycheque they receive has a certain amount withheld. The amount is contributed to a private fund that pays for their personal retirement purposes. Unlike most other pension funds, the CPF is tagged to the individual and future workers do not pay for the benefits of current workers entitled to receive these benefits. Essentially, the more he earns, the more he needs to provide for his own retirement needs.

CPF is a defined-contribution fund. It means that the amount of contribution made by its members is predetermined and the level of benefits to be derived will depend on the level of returns achieved by the fund from its investments.

10.5.2 Employer-Sponsored Pension Plans

There are many different types of pension plans. Some employers offer pension plans which will pay their employees or their spouses a monthly amount over their life expectancy. A typical one is that based on a percentage multiplied by the employee's number of years of service and the average compensation he derived from three consecutively highest paid years.

For example, assume a retirement plan that provides a retirement benefit equal to 1.5% times the number of years of service times the average of the individual's three highest years of consecutive compensation. If an individual worked for an employer for 30 years and the average of his three highest years of consecutive compensation was \$50,000, then his annual retirement benefit would be \$22,500 ($1.5\% \times 30 \times \$50,000$) or \$1,875 per month.

Employer pension plans vary in design, so it is important for planners to understand how the particular benefits are calculated when planning for their client's retirement. Plans which promise to pay a benefit during retirement are known as defined benefit plans. The employer is typically responsible for the investment and actuarial funding of the retirement plan.

10.5.3 Personal Savings and Investments

Other sources of retirement funds are personal savings and investments. These are generally the most difficult way to accumulate retirement funds because there are no, or minimal, tax deduction or tax deferral on earnings. Most people tend to spend all their available funds, such as their monthly salary. However, if a person sets aside his excess money on a regular basis and is disciplined enough to "pay himself first", then this could be a significant source of retirement savings for him.

Planners should also consider the kind of current investments the client has. If he already has a sizeable investment portfolio, that alone may be sufficient to cover his retirement needs. If he has yet to begin investing for his retirement or is coming into the retirement planning game late, he will need to compensate for his lack of current savings with greater contributions.

If his other sources of income are enough to fund his retirement, the client will not have to draw large amounts out of his presently available funds. If the client does have current savings and investments, the planner must be sure to include only the portion the client expects to have left over by the time he reaches retirement. The planner should be careful not to include any portion that the client is planning to leave for his children or to spend on other areas, such as a holiday home, as it is not to be allocated for his living expenses.

10.5.4 Other Sources of Funds

Your client may have other available sources to fund his retirement needs. Perhaps he will receive an inheritance from his parents before he reaches retirement age or he may have assets, such as real estate, that he plans to sell before retiring. Whatever additional sources of funds the client may have, they can only be included in the retirement projections if they are certain to materialize. Your client may be expecting a large inheritance from his parents, but his parents may have other plans, such as donating it to charity.

Other unexpected cash in-flows may also come along - such as lottery winnings, gifts, raises or bonuses, etc. When the client does receive these additional cash in-flows, you can consider adding them to his retirement fund. It is also appropriate to include the planned sale of a real estate but it's wise to project it at a conservative price.

10.5.5 Addressing Shortfalls in Retirement Resources

After you have clearly defined all the available income sources to fund the client's retirement, make a list and add them up.

Example: Establishing shortfalls in funding requirements.

Your client's retirement income sources are:

- Current balance of \$120,000 in his CPF Accounts. This balance, together with future contributions, will grow to \$670,000 by the time he retires.
- He has \$50,000 in current savings and investments. At a reasonable 8% rate of return for 20 years, they should grow to \$233,047.86.
- He does not have any other sources of funds he can conservatively expect to add to his retirement funds. He might win the lottery, but he's not banking on it.

Let say that your client, with a life expectancy of 20 years, would need a total of \$1,068,292.06 (in today's value) to fully fund his retirement goals with peace of mind.

Since his CPF accounts and current savings and investments can provide only \$903,047.86 in today's value (\$670,000 + \$233,047.86), by the time he reaches his retirement age, the client will need to rely on his other funding sources to reach his goals. This leaves him needing to build additional savings of \$165,244.20 (in today's dollars) by the time he is 55 years old. Given his annual income, he will have to make periodic contributions to his retirement fund and build it up over the next 20 years.

10.6 SAVING FOR RETIREMENT

For clients, saving for retirement poses many difficult decisions, involving a lot of complex issues that need to be taken into consideration. Some of these decisions are based on personal needs and desires as well as tax reasons and concerns of the future.

Whatever investment strategies that the client will be following in your plan for his retirement, it is very important that you look at and understand ALL his investments as part of his overall investment and retirement planning strategy. It is important to get the client to start saving early.

A major concern of most clients is where to invest their retirement savings. None of them wants to expose their savings to risk. There are concerns about fluctuations in the share market and many clients are uncomfortable investing in the share market because of the higher risk associated with shares.

However, the planner should consider the following two points when advising the client.

1. First, inflation is a risk. Investing in “riskless” investments such as fixed deposits and short-term money market securities may not achieve a rate of return higher than inflation (especially after tax). Therefore, even though the principal amount of the client’s investment remains intact in riskless investments, the purchasing power is reduced by inflation.
2. Secondly, the risk of investing in shares is reduced as the time horizon increases. Historically, shares tend to outperform other forms of investments and achieve a rate of return higher than inflation (including tax consequences). This makes shares or equity unit trust funds attractive for retirement planning because of the long-term investment horizon. Shares may not be appropriate for investors with a short-term horizon.

We have included the following analysis demonstrating the impact of investing \$5,000 annually in a fixed deposit account earning 3.0% annually compared to investing the same \$5,000 in a small equity fund earning 12.0% annually. The rates of return are based on historical average rates of return.

	3.00%	12.00%
No. of Years	\$	\$
1	5,000	5,000
2	10,150	10,600
3	15,455	16,872
4	20,918	23,897
5	26,546	31,764
10	57,319	87,744
15	92,995	186,399
20	134,352	360,262

Over a period of 20 years, the impact of compounding on the investments can be seen, as the ending balance of the investment in the capital equity fund is over 2.68 times the balance in the fixed deposit account.

10.7 STRATEGIES TO ADDRESS SHORTFALLS IN RETIREMENT RESOURCES

If the calculated pre-retirement lump sum is below the client’s estimated financial resources, then depending on the size of the gap, one or a combination of the following strategies could offer a solution:

- deferral of retirement;
- lowering retirement living expectations;
- reducing current spending; and
- increasing the level of investment risk.

10.7.1 Deferral of Retirement

One way of dealing with a projected income shortfall is to stay in the workforce longer than the client had planned. This will allow the client to continue supporting himself with a salary rather than dipping into his retirement savings. Depending on his income, this could also increase his contribution to his retirement scheme like the CPF. He would also be able to delay withdrawing from his CPF so the money in the account can continue to earn interests.

10.7.2 Lowering Retirement Living Expectations

If the client's projected income shortfall is severe or if he is already close to retirement, no matter what measures he takes, he will not be able to afford the desired retirement lifestyle. In other words, the client will have to lower his expectations and accept a lower standard of living.

10.7.3 Reducing Current Spending

The client may be able to deal with an income shortfall by adjusting his spending habits. If he is still years away from retirement, he may be able to get by with a few minor changes. However, if retirement is just around the corner, he may need to drastically change his spending and saving habits. Saving even a little money can really add up if the client does it consistently and it can earn a reasonable rate of return. Make permanent changes to spending habits and the client may find that his savings will last even longer.

10.7.4 Increasing Level of Investment Risks

Some clients make the mistake of investing too conservatively to achieve their retirement goals. That's not surprising, because as clients take on more risk, they face greater potential for loss as well. However, greater risk also generally entails greater reward. Moreover, with life expectancies rising and people retiring earlier, retirement funds need to last a long time.

When the client is facing a projected income shortfall, he should consider shifting some of his assets to investments that have the potential to substantially outpace inflation. The amount of investment dollars he should keep in growth-oriented investments depends on his time horizon (how long he must save) and his tolerance for risk. In general, the longer he has until retirement, the more aggressive he can afford to be. Still, if he is at or near retirement, he may want to keep some of his funds in growth-oriented investments, even if the bulk of his funds are kept in more conservative, fixed-income investments.

For most clients, deferring retirement, lowering their retirement living expectations, or taking on more investment risk will probably be the least favourable solution. This leaves the 'spend less and invest more' option as the one that will most likely be discussed further with the client.

10.8 NON-FINANCIAL RETIREMENT ISSUES

Retirement is as much an emotional issue as it is a financial one for many clients. Quite literally, an old way of life has ended, and a new way of life is beginning. Some of the clients underestimate how important their job is in so many ways. Apart from providing them with an income – it also gives them a sense of status and identity, not to mention social companionship. Therefore, in planning for his retirement, it is important that you advise the client to take stock of his personal development and set some meaningful activity goals.

It is important for client to be proactive and to think through all aspects of retirement including:

- Where does he plan on living?
- What lifestyle goals will he have?
- Does he want to travel or eat out regularly?
- What about his interests and hobbies?

Relationships form an important part of your clients' happiness – so you could plan activities that could help them stay in contact with their loved ones and others. Good health is a prerequisite for enjoying retirement, so ensure your clients invest in their wellbeing. Retirement is also a time when they tend to think more about spiritual issues and contemplate their life philosophy, like what matters most to them now.

All these issues are important to consider and will have an impact not only on the lifestyle of the client but their finances.

10.9 The Central Provident Fund (CPF) Board

The Central Provident Fund (CPF) is a comprehensive social security savings plan that has provided many working Singaporeans with a sense of security and confidence in their old age.

The overall scope and benefits of the CPF encompass the following:

- Retirement
- Healthcare
- Home Ownership
- Family Protection
- Asset Enhancement

It is administered by the Central Provident Fund Board, a statutory board under the Ministry of Manpower.

The British colonial authority in Singapore introduced the CPF as a compulsory savings scheme to allow workers to save for their retirement in 1955, 10 years after the end of the Japanese Occupation when people were struggling to make ends meet.

With Singapore's entrance into developed status, life expectancy rose with the rising living standards. Singaporeans were required from 1987 to set aside a portion of their income to their CPF until retirement age to provide them with a basic monthly income when they retire.

10.9.1 Types of CPF Accounts

Working Singaporeans and their employers make monthly contributions to the CPF and these contributions go into three accounts:

- Ordinary Account (OA) – for housing, pays for CPF insurance, investment, and education.
- Special Account (SA) – for old age and investment in retirement-related financial products.
- Medisave Account (MA) – for hospitalization and approved medical insurance.

The Retirement Account (RA) is created using the savings in OA and SA to meet basic needs during old age.

Interest Rates

CPF savings earn a minimum risk-free interest of 2.5% guaranteed by the Government. Special, Medisave and Retirement Account savings currently earn a guaranteed minimum 4% interest until 31 June 2021.

In addition, the first \$60,000 combined CPF balances, with up to \$20,000 from one's Ordinary Account, will earn an extra 1% interest.

Ordinary Account Monies

For Ordinary Account (OA), CPF members receive a market-related interest rate based on the 12-month fixed deposit and month-end savings rates of the major local banks. For example, the computed CPF interest rate, derived from the major local banks' interest rates for the three-month period, November 2020 to 30th April 2012, worked out to be 0.09% per annum. However, members will receive the higher rate of 2.50% as legislated by the CPF Act. The interest rate for OA is reviewed quarterly.

Special and Medisave Account Monies

Savings in the Special and Medisave Account (SMA) currently earn either 4% or the 12-month average yield of 10-year Singapore Government Securities (10YSGS) plus 1%, whichever is the higher. The interest rate on SMA savings is adjusted quarterly, based on interest rates on 10YSGS over a preceding 12-month period. For example, the 12-month average yield of the 10YSGS plus 1%, from February 2020 to January 2021,

Accordingly, the SMA interest rate payable to CPF members from 1st April 2021 to 30 June 2021 will be maintained at the current floor of 4%.

Additional Interest of 1%

An additional 1% interest will continue to be paid on the first \$60,000 of a member's combined balances, with up to \$20,000 from the Ordinary Account (OA). The additional interest received on the OA will go into the member's SA or RA to enhance his retirement savings. If the member is above 55 years old and participates in the LIFE scheme, the additional 1% interest will also be payable on his annuity premium, less annuity pay-outs already made. The additional interest earned on the member's LIFE annuity monies will be paid into his RA.

Retirement Account Monies

The interest rate is computed based on the weighted average interest rate of the entire invested portfolio. New savings credited to RA each year earn the 12-month average yield of 10YSGS plus 1%, from November 2019 to October 2020, works out to be 2.22%. Given the current lower 10YSGS yield, new RA savings will earn a fixed coupon of 4% (floor rate).

The interest rate is reviewed annually.

The interest rate to be credited to the RA is the weighted average interest rate of the entire portfolio of these SSGS and adjusted yearly in January. The weighted average interest of the entire portfolio of these SSGS is 4% now, so the interest rate payable to CPF members on their RA balances 2014 will be 4% until 31st December.

From 1 January 2015, the SMA and RA rates will be pegged to the 12-month average yield of 10YSGS plus 1%, subject to the statutory floor rate of 2.5% per annum that applies to all CPF accounts.

Contribution Rates

The CPF contribution rates are adjusted frequently by the government to reflect the changing economic conditions. The tables below show the latest CPF contribution and allocation rates for Private Sector Employees and Non-Pensionable Employees whose monthly wages exceed \$750. For this group of members, the Ordinary Wage Ceiling is \$6,000. (These do not apply for Permanent Residents in the 1st and 2nd year of obtaining PR status but who have not jointly applied with employer to contribute at full employer and employee rates.)

Visit [CPF website](#) to obtain the updated CPF Contribution Rates.

Visit [CPF website](#) to obtain the updated CPF Allocation Rates.

10.9.2 Retirement Schemes

Full Retirement Sum Scheme

With increased life expectancy, members must set aside enough savings to see themselves through a longer period of retirement. The CPF Retirement Sum Scheme (RSS) provides members with a monthly income to support a modest standard of living during retirement.

The CPF LIFE Scheme was introduced in 2009 to better mitigate longevity risks, it provides a monthly income for as long as you live. You will join CPF LIFE if you are a Singapore Citizen or Permanent Resident born in 1958 or after, and have the following Retirement Account balances:

You turned 55 between 1 January 2013 and 30 April 2016	You turned 55 on 1 May 2016 and after
<ul style="list-style-type: none">• At least \$40,000 in your Retirement Account when you reach 55 years old; or• At least \$60,000 in your Retirement Account six months before you reach your payout eligibility age.	<ul style="list-style-type: none">• At least \$60,000 in your Retirement Account six months before you reach your payout eligibility age.

When you reach 55 years old, your Special and/or Ordinary Accounts savings will be transferred to your Retirement Account (RA), up to the Full Retirement Sum (FRS). You can withdraw up to \$5,000 from your Special and Ordinary Accounts, or your CPF savings after you have set aside your Full Retirement Sum in your Retirement Account, whichever is higher.

After setting aside the FRS fully with cash, or with cash (i.e., at least the Basic Retirement Sum) and property, you can choose to withdraw the remaining cash balances in your Ordinary and Special Accounts, or continue to keep your savings in CPF to earn 4% interest per annum currently. The interest rate is revised yearly.

Members who turn 55 years old from 2013 onwards are eligible for pay-out eligibility age (PEA) lump sum withdrawal, of up to 20% of their Retirement Account savings that are available as at their 65th birthday (less the \$5,000 that they can unconditionally withdraw from 55 years old).

Rules for CPF Withdrawal at age 55

Members can withdraw their CPF retirement savings to supplement their CPF monthly pay-outs when needed. The amount you can withdraw from age 55 depends on how much you have in your Special and Ordinary Accounts.

Savings in your Special and Ordinary Accounts	You can withdraw
\$5,000 or less	All your Special and Ordinary Account savings
Between \$5,000 and FRS	(i) \$5,000, and (ii) Any Retirement Account savings above the Basic Retirement Sum, if you own a property with remaining lease that can last you to at least age 95.
Above FRS	(i) \$5,000 or your Special and Ordinary Account savings above FRS, whichever is higher, and (ii) Any Retirement Account savings above the Basic Retirement Sum, if you own a property with remaining lease that can last you to at least age 95.

The CPF savings can also be withdrawn on the following grounds:

- By Malaysians, who had CPF accounts and residing in West Malaysia
- One has given up his citizenship or PR and leaving Singapore and West Malaysia permanently
- Permanently unfit for work, such as physically or mentally incapacitated - may not be a full withdrawal of savings, subjected to terms and conditions
- Death

CPF LIFE

The CPF Lifelong Income scheme For The Elderly (CPF LIFE) is a scheme that will provide members with a monthly pay-out starting from their Draw Down Age (DDA), for as long as they live. It improves upon the current Minimum Sum Scheme where pay-outs only last about 20 years.

No minimum amount of RA savings will be needed to join CPF LIFE, however the monthly pay-out depends on the RA savings. Thus, members with lower RA balances will receive correspondingly lower monthly pay-outs.

For members who turn 55 before 2013, he can join CPF LIFE if he is a Singapore Citizen or Singapore Permanent Resident between the ages of 55 and 80 with savings in your Retirement Account (RA).

For members who turn 55 after 2013, he would be automatically included in CPF LIFE if he had at least \$40,000 in his RA when he turns 55 or at least \$60,000 upon reaching 65. Members can still choose to join the scheme if he is not automatically included. Members who have a life annuity from an insurance company that provides equivalent benefits to that of CPF LIFE may be exempted from joining the scheme.

10.9.3 Healthcare Schemes

The Basic Healthcare Sum (BHS) is the estimated savings you need in your MediSave Account for your basic subsidised healthcare needs in old age.

The BHS will be adjusted annually to keep pace with the expected growth in MediSave due to medical inflation for CPF members below the age of 65. The BHS will be fixed at the prevailing amount for the rest of their lives when the members turn age 65. The prevailing BHS is \$63,000 in 2021.

For members who have accumulated savings above the BHS, the excess of BHS will be transferred to their CPF Special Account (SA) if they are below age 55 or Retirement Account (RA) if they are above age 55. For members who have met the Full Retirement Sum FRS in their SA or RA, the savings in excess of the BHS will be transferred to the Ordinary Account.

Medisave

Medisave is the national savings scheme which helps individuals put aside part of their income in their Medisave Accounts to meet their personal or their dependants' healthcare expenses, especially during retirement.

Besides hospitalizations, Medisave can be used to pay for certain costly outpatient treatments like dialysis, chemotherapy, and radiotherapy, as well as for treatment of several chronic diseases like diabetes, hypertension, etc. Medisave can also be used for rehabilitative care and end-of-life care.

Medisave can also be used to pay premiums for approved medical insurance schemes like MediShield for yourself and your dependants. Members can use their Medisave to buy an enhancement plan from an approved private insurer. These enhanced plans, called Integrated Shield Plans are integrated with MediShield to provide financial protection on top of what MediShield provides.

Besides approved medical insurance schemes, Medisave can be used to pay for approved long term care insurance, i.e., Careshield Life and Careshield Life supplements.

MediShield Life

MediShield is an individual catastrophic medical insurance designed to help Singaporeans pay part of the large hospitalization bills for treatment of serious illnesses or prolonged hospitalizations at Class B2/C wards in restructured hospitals.

MediShield covers hospitalization expenses and certain approved outpatient treatments, such as kidney dialysis, chemotherapy and radiotherapy for cancer treatment sought on medical grounds in MOH-accredited medical institutions in Singapore. Expenses for treatments sought overseas cannot be claimed from MediShield. In addition, there is also a list of standards excluded medical treatments and expenses which MediShield does not cover. Additional exclusions may also be imposed on an insured, depending on his health condition at the time of application on a case-to-case basis.

Besides citizens, the scheme is also extended to Singapore Permanent Residents (SPRs) who are eligible for subsidized medical care in restructured hospitals in Singapore.

CPF Board administers MediShield which is a basic medical insurance. The maximum coverage age is currently 85 years old. However, higher, and better coverage is available Medisave-approved Integrated Shield Plan (IP) directly from one of the private insurers under the Private Medical Insurance Scheme (PMIS). An IP is made up of MediShield and an enhancement plan offered by private insurers under the PMIS.

Medisave savings may be used to cover the premiums for MediShield. Members can use their Medisave to pay the premiums for their IP cover. For insured persons who are below 81 years old (age next birthday), the Medisave withdrawal limit is \$800 per insured person, per policy year. For insured persons who are 81 years old (age next birthday) and above, the withdrawal limit is \$1,150 per insured person, per policy year.

Medifund

Medifund is an endowment fund set up by the government as a safety net to help needy Singapore citizens who are not able to pay their medical expenses. This is also a safety net for those who are unable to afford the subsidized charges at restructured hospitals even with Medisave and MediShield Life. It is a fund of last resort.

MediFund has also been extended to cover more healthcare services, such as primary care at polyclinics, dental services, antenatal and delivery services over the years.

Careshield Life

Careshield Life was first launched by the Ministry of Health in 1st Oct 2021. CareShield Life is a long-term care insurance scheme that provides basic financial support should Singaporeans become severely disabled, especially during old age, and need personal and medical care for a prolonged duration (i.e., long-term care).

Careshield Life is offered to eligible Singaporeans and Permanent Residents (PRs) who are CPF members when they turn 30 years old. Premiums for Careshield Life are payable annually until the policy holder turns 67. The premium can be paid in cash or using Medisave savings.

A CPF member can also use his/her Medisave savings to pay the ElderShield premiums for his/her parents, spouse, grandparents and children. Upon paying the premium for 10 years or until age 67, whichever is later, the policy holder will be covered for life.

The pay-out for Careshield Life will increase annually until the policy holder aged 67 or when a successful claim is made. Once a successful new claim is made, your monthly pay-out amount will remain fixed for the duration of the severe disability. The policy holder will receive monthly payouts for as long as he/she remains severely disabled. Policy holders who want a higher pay-out can purchase a Careshield Life Supplement.

"The Ministry of Health has appointed three insurers to offer Careshield Life Supplements. The insurers are: Aviva Ltd, Great Eastern Life Assurance Co Ltd and NTUC Income Insurance Cooperative Ltd.

The premiums for the Careshield Life Supplements can also be paid using Medisave, subject to a cap of \$600 per insured person per calendar year. Careshield Life Supplement policyholders must first have a basic Careshield Life cover before they can use their Medisave to purchase any Careshield Life Supplements.

Applications for the Careshield Life Supplements can be made with any of the appointed Careshield Life insurers.

10.9.4 Home Ownership Schemes

The Ordinary Account savings can be used to purchase a home under the CPF housing schemes. A HDB flat may be purchased under the Public Housing Scheme, or a private property under the Residential Properties Scheme. CPF savings may be used for full or partial payment of the property, and to service the monthly housing payments. Home buyers who are taking a bank loan to finance their property purchase must pay the first 5% of the down payment in cash. If a flat is purchased under the Public Housing Scheme, insurance under the Home Protection Scheme will be needed.

10.9.5 Family Protection Schemes

The Dependents' Protection Scheme helps families to tide over the first few years in the event of an insured member's permanent incapacity or death.

The Home Protection Scheme prevents homes from being lost. This scheme is applicable to all CPF members who use their CPF savings to buy an HDB flat. Should the insured member become permanently incapacitated or die, the CPF Board will pay the outstanding housing loan based on the amount insured.

10.9.6 Asset Enhancement Schemes

CPF members may invest their Ordinary Account balance under the CPF Investment Scheme – Ordinary Account (CPFIS-OA) and their Special Account balance under the CPF Investment Scheme – Special Account (CPFIS-SA), subject to caps. Assets that may be invested includes Insurance, Unit Trusts, Exchange Traded Funds (ETFs), Fixed Deposits, Bonds and Treasury Bills, Shares, Property Fund and Gold. From 1 July 2010, only monies more than \$20,000 in the Ordinary Account and \$40,000 in the Special Account can be invested.

10.9.7 Education Schemes

The Education Scheme is a loan scheme which enables members to use CPF savings from their Ordinary Account to pay for their children's, spouses', or their own tuition fees. The student must repay the amount withdrawn plus interest, in cash subsequently into the payer's Ordinary Account. Repayment commences one year after the student graduates or leaves the educational institution. Only full-time subsidized courses at approved local educational institutions are included under this loan scheme.

Interest on the outstanding loan is computed based on the prevailing CPF Ordinary Account (OA) interest rate from the time monies is withdrawn from the CPF Account to the time the loan is fully repaid.

The interest will start to accrue from the time the amounts are withdrawn from member's CPF Account until the loan is fully repaid. Interest is calculated monthly and is compounded on a yearly basis, pegged at the prevailing interest rate for Ordinary Account.

Simple Retirement Calculation & Planning

Develop an effective retirement plan to help clients achieve their retirement goals, incorporating information such as desired retirement objectives, retirement age, personal financial situation.

The financial planner can quickly help client to determine if they have set aside enough for retirement in a simple 5 steps calculation:

1. Determine client's total annual contributions to retirement savings?
2. Multiply that number by the number of years left until retirement.
3. Add his current retirement savings to that number.
4. Divide by the number of years he expects to live in retirement.
5. Add that to other guaranteed sources of income.

Here's an example of how to use these five steps.

You are sitting across the table with Spencer Wong, age 45 and he asked you to calculate his retirement situation given the facts he furnished you...

- He currently saves a total of \$12,000 each year.
- His savings balance at \$200,000.
- They would like to retire at age 65.
- He thinks he will live at least up to age 85.
- His CPF Life is estimated to pay him a monthly retirement income of at least \$1,100 or \$13,200

Step #1...	His total annual savings:	\$12,000
Step #2...	Total savings accumulated by age 65:	$\$12,000 \times 20 = \$240,000$
Step #3...	Total expected savings + existing savings:	$\$240,000 + \$200,000 = \$440,000$

Step #4...	Total future and existing savings divided by retirement years:	$\$440,000 / 20 = \$22,000$
Step #5...	Annual expected income + income from CPF Life	$\$22,000 + \$13,200 = \$35,200$

In this case \$35,200 represents Spencer's expected annual retirement income. The question then is for the adviser to ask Spencer if this is enough for his retirement. An objective way to help answer this question for Spencer is to measure this expected number with his current income level. This may help him to see how close or far he is away from his current living standards. For a more conservative approach, Spencer may benchmark his expected retirement income with his current level of expenses.

Some will object that this simple enough-to-retire calculation does not consider the growth rate on investments, or inflation. For the sake of simplicity, assume a growth rate on safe assets is 3%, and inflation is 3%. Those two variables would then cancel each other out.

It is impossible to accurately predict all of the variables that will affect one's retirement plan over a twenty to forty year time horizon. More detailed planning is useful, but this simple enough-to-retire calculation above offers a great starting place.

If the client's expected retirement income falls below his desired level, the adviser then can help to bridge the gap.

For instant, Spencer tells you that his ideal retirement income is \$60,000 annually. This represents a retirement income shortfall of \$24,800 (\$60,000 - \$35,200).

A Planning Example:

Mark Chan, age 35 has been saving conscientiously on his retirement since he started work. His current take home pay is \$7,500 a month. He puts aside about \$1,500 each month as savings towards retirement. He currently has cash savings of about \$170,000. He would like to retire at 60 and he wants to cater retirement needs until he is 90. Estimate for Mark his expected annual retirement income if Mark tells you not to consider CPF Life.

No. of years to retirement: 25

Step #1...	His total annual savings:	\$18,000
Step #2...	Total savings accumulated by age 65:	$\$18,000 \times 25 = \$450,000$
Step #3...	Total expected savings + existing savings:	$\$450,000 + \$170,000 = \$620,000$
Step #4...	Total future and existing savings divided by retirement years:	$\$620,000 / 30 = \$20,667$

Mark's estimated monthly retirement income is $\$20,667 / 12 = \$1,722$

If Mark's wants at least a monthly retirement income of \$4,500, what additional savings does he need to put in every year without taking into consideration his CPF Life?

Step #1...	Total retirement savings amount:	$\$4,500 \times 12 \times 30 = \$1,620,000$
Step #2...	Total savings over 25 years:	$\$1,620,000 - \$170,000 = \$1,450,000$
Step #3...	Annual required savings for 25 years:	$\$1,450,000 / 25 = \$58,000$

Monthly required savings: \$4,833

Additional monthly savings required: $\$4,833 - \$1,500 = \$3,333$

Summary

This Chapter looked at the different retirement needs of the client and how they can be incorporated into the financial planning process.

The retirement needs of the client must be thoroughly reviewed to determine what his real needs are if they differ from his stated needs.

In the planning process, attention must be given to realistic income objectives. If these cannot be reasonably met by current resources, then explicit savings strategies must be developed and implemented. The features of the EPF and other forms of savings were briefly covered. The strategies to fill retirement income deficits were discussed.

Chapter 11: Estate Planning

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Introduction

Let's assume for a moment that one of your clients have made it to retirement after living a virtuous and profitable life. After abstaining from unhealthy vices and doing all the right things, he was rewarded with a hefty retirement nest egg. In addition, he managed to preserve his nest egg from circumstances such as divorce, creditors, and various other things that can drain his retirement resources, like illness, poor money management, or unforeseen situations. Then the unexpected happens. In one of life's great ironies, he passed away before enjoying the retirement wealth he had so diligently accumulated.

Then, the question comes: what would happen to his retirement savings when he is no longer around to enjoy them? The answer, of course, is that somebody else gets to enjoy his hard-earned savings after he is gone. However, by coordinating his retirement planning with estate planning, he can have some control over who gets the benefit of his assets when he is no longer around.

What are my assets and what are their approximate values? Whom do I want to receive the assets - and when? Who should manage my assets if I cannot, either during my lifetime or after my death? Who should have the responsibility for the care of my minor children if I become incapacitated or die? If I cannot take care of myself, who should make decisions on my behalf concerning my care and welfare?

Those are some of the very pertinent questions your clients may be exploring with you. Estate planning will help to address these questions.

Estate planning is a topic in and of itself; there are some things you need to know before you go off to continue your quest for knowledge. Probably the most important thing you need to know is that estate planning is such a complex subject that many clients may ultimately require professional guidance from a financial planner.

In this chapter, we will address the various issues of estate planning.

Learning Outcomes

1. Define some of the most commonly used estate planning terms.
2. Identify the main features of wills, trusts and power of attorney.
3. Distinguish between the functions of a will and a trust.
4. Recognize the relative benefits of different types of trusts.
5. Compare the different types of property ownership.

Chapter 11 – Estate Planning

11.1 WHAT IS ESTATE PLANNING

Estate planning is a formal term for the process of preparing for and managing the financial and administrative transitions related to a person's death.

With estate planning, a person can soften the impact of his death on those he leaves behind by:

- clearly documenting his wishes regarding the administration of his estate,
- identifying his assets,
- providing instructions as to the distribution of his assets upon his death, and
- naming the person or persons responsible for managing the distribution of his assets.

While the most obvious facet of estate planning deals with who gets what after he is gone, there is much more to it, as we will discuss later.

Estates are all the assets and liabilities of a deceased person, which may be inherited by the deceased person's heirs.

Broadly, estate includes:

- Immovable property such as a building, a piece of land, a plantation, etc.
- Movable property such as money, shares, jewellery, equipment, vehicles, clothes, etc.
- Money owed to a deceased person.
- Property that has been charged or pawned by a deceased person and which is redeemable.
- Property purchased by a deceased person during his lifetime for which payment has been made by him, but which has not been delivered to him until his death.
- Other assets such as savings, employee provident fund money, shares, unit trusts, bonds, and insurance policies.
- All the aforesaid properties in and outside the residence of a deceased person.
- All other assets of material value.

The Need for Estate Planning

Estate planning seeks to protect the assets of your clients against the claims of unintended recipients to preserve them for chosen beneficiaries. It could be a wealthy sibling who doesn't need any more wealth, or a "close" relation who isn't close at all, or the creditors of the client's business, or someone seeking to lay claim to some of the client's assets when he is not around anymore. Careful estate planning on the part of your client can prevent such claims.

With estate planning, the client can provide for those he leaves behind upon his death. Although financial matters and asset distributions tend to be the primary focus, there is so much more for the client to consider: for example, ensuring continuing support and care for his loved ones - an aging spouse, a developmentally disabled dependant, a minor child or a cherished pet.

Estate planning can be used to document the client's instructions well in advance for the myriad details associated with his death. If you can get him to consider the necessary details, not only can you help him document his desires, but also make provisions to cover the costs that are certain to be incurred.

Estate planning is important, and if the client has already pursued investment planning, insurance planning, or retirement planning, it will be just a slight stretch for him to extend his efforts to estate planning. Planning for wealth during his lifetime and planning for its distribution upon his death can go hand in hand.

11.2 BASIC TOOLS IN ESTATE PLANNING

Developing a comprehensive estate plan is one of the best ways to help assure that your client's assets will be managed for his family and loved ones as he intends.

Regardless of the size of his estate, for you to impart effective advice to the client, you should generally have a good understanding of these estate planning tools. The tools can be categorized under two main categories.

Table of Estate Planning Tools

Via Probate	Outside Probate
Wills	Trusts (Including Insurance)
Intestacy Laws	Joint Tenancy Nominations (Insurance, CPF, Contract Provisions in Business Buy-Out Agreements) Contract Transfer Power of Attorney

11.2.1 Wills

A will is simply a legal document which specifies how a deceased person's assets, otherwise known as the estate, will be distributed. The recipients of the estate, whether they are people, business, or charities, are known as beneficiaries. When a person dies without writing a will, the estate is said to be intestate. Similarly, if some portion of the will is somehow invalid then that portion of the will is said to be intestate.

The person who creates the will is known as the testator. He should also name an executor in his will. With the will, the testator can ensure that all his wishes will be carried out after his death. The executor will take care of the testator's property until the executor hands it over to the testator's beneficiaries. Once the testator has written and signed his will, he should arrange for its safekeeping. The executor should be informed of where the will is being kept.

If there is a need to make a change to an existing will, the new will should specifically revoke any prior wills. The testator may choose to write a codicil if he wants to add a supplement or amend something to his existing will. A codicil is simply an amendment to a will. It should be written in the same language as the will. The codicil will be prepared, executed, and signed in the same manner as the original sections of the will.

Validity

For a will to be legally valid, it must comply with the provisions the Wills Act.

1. To make a will, the testator must be at least 21 years old or older. If the testator is a soldier serving in actual military operations or a seaman, the minimum age requirement of 21 years old is waived.
2. The testator must be of “sound mind”, meaning that he:
 - knows that he is making a will;
 - knows what a will is;
 - understands the relationship between himself, his spouse, his children, and other members of his family;
 - understands what he owns; and
 - can decide who his beneficiaries will be and how his property will be distributed.

It is presumed that anyone who writes a will is of sound mind. This issue usually doesn't arise unless someone challenges the mental state of the writer of the will in court, which happens very rarely.

3. The will must be made in writing. In practice, typewritten or computer printed wills are preferred as handwritten wills may cast doubts on the intention of the testator. A will and any codicils must be signed by the testator at the foot or end of the document.
4. The signing of the will by the testator must be acknowledged by at least two witnesses. The witnesses must be present when the testator signs the will and they must sign it immediately afterwards; however, they need not be present while the testator writes the will. The witnesses may have to go to court, during the probate process after the testator's death, to confirm that the will is valid.
5. The witnesses must satisfy that the testator signed the will voluntarily.
6. The beneficiary or the spouse of the beneficiary should not be a witness to the will. The beneficiary who is also a witness will not be entitled to any benefits under the will.

Components

Though not mandatory, there are some other things that a testator may want to include in his will:

- A clause that revokes all previous wills;
- Names of all beneficiaries and what the testator wishes to leave them; and who gets the property if a beneficiary dies before the will-maker;
- The name of a guardian whom the testator/ will-maker would like to appoint for his younger children;
- The name of the executor of the will;
- If the will creates trusts, to name the trustee(s), or person(s) in charge of those trusts; and
- A statement naming a “residuary” beneficiary. This person will get all the leftovers of the estate after the beneficiaries get the share that has been designated for each of them.

Revocation

A will can be revoked by the following acts/circumstances:

- A subsequent will would automatically revoke an earlier will, whether a revocation clause is included in the later will. The testator can also revoke a will by making a written statement of his intention, signed in the presence of two witnesses.
- A will is revoked by a marriage or re-marriage (unless the will is made in contemplation of a particular marriage). Divorce or separation does not revoke a will.
- A will is revoked when the testator destroys the will physically with the intention of revoking it. Accidental or malicious destruction by a third party does not constitute revocation.

Probate

If the deceased had left a valid Will, the executor named in the Will would have to apply to court for a Grant of Probate which grants him the right to carry out his duties. Upon getting the Grant of Probate, the executor will then go about distributing the estate according to the Will. Depending on the size and complexity of the estate, this process usually takes on average 6 months.

Probate is a legal process that takes place after the testator dies and it means a grant under the seal of the court authorizing the executor or executors named in a will to administer the testator's estate.

Although laws differ in countries, generally probate involves the following:

- identifying and listing the deceased's property;
- accounting and appraisal of the property; and
- payment of income taxes and creditors.

In some countries, the surviving spouse and/or children are usually allowed a specific amount of the deceased properties during the legal process of probate in order to help them cope with any expenses.

For certain kinds of property, the naming of beneficiaries will have no effect. Such non-probate estate / property include:

- Property transferred to a living trust;
- Proceeds of a life insurance policy for which a nominee (the spouse or children of the policy holder) have been named; and
- Money in the CPF Accounts for which a nominee has been named.

Intestate Succession

If a person does not have a will, or some other method (like a Trust or a gift) to transfer his property at the time of his death, his estate will go through a process called "intestate succession."

An administrator will administer and distribute the deceased's estate instead of executors. Nevertheless, they perform a similar task. However, the process will take much longer (1 year) as there are additional conditions that the potential administrator will have to fulfil as compared to an executor. For example, all other potential applicants must sign a deed of renunciation to declare that they are giving up their rights to apply as administrator. If family members do not get along, or if some had migrated to other countries, this step alone could take as long as 7 years to settle!

Through this process, the estate will be distributed (see the Estate Distribution Tables provided below) to the spouse, children, and other relatives according to the applicable laws. "Issue" refers to a child (legitimate or adopted by an Order of Court pursuant to the Adoption Act (Cap. 4) and the descendants of a deceased's child).

Estate Table for Singapore

Deceased Die Intestate Leaving :	Distribution
Spouse No Issue No Parent	Whole share to surviving spouse.
Spouse Issue	$\frac{1}{2}$ share to surviving spouse. $\frac{1}{2}$ share to be shared equally among issue and, where they have already died, their children. Parents are not entitled.
Issue No Spouse	Whole share to be shared equally among issue and, where they have already died, their children. Parents are not entitled.
Spouse Parent No Issue	$\frac{1}{2}$ share to surviving spouse. $\frac{1}{2}$ share to be shared equally among surviving parents.
Parents No Spouse No Issue	Whole share to be shared equally among surviving parents.
Siblings No Spouse No Issue No Parents	Whole share to be shared equally among deceased's siblings and, where they have already died, their children.
Grandparents No Spouse No Issue No Parents No Siblings and Their Children	Whole share to be shared equally among surviving grandparents.
Uncles & Aunts No Spouse No Issue No Parents No Siblings and Their Children No Grandparents	Whole share to be shared equally among surviving uncles and aunts

11.2.2 Trusts

Trusts are extremely useful estate planning tools. They are used extensively in many areas of estate planning. We shall now discuss the basics of trust and commonly used trusts.

Basics of Trust

While there are many types of trusts that serve many different purposes, they all share some things in common.

A trust is a legal agreement among three parties:

- the grantor (also known as the settlor or trustor);
- the trustee; and
- the beneficiary.

The grantor transfers the legal title of the property to a trust, and then the trustee manages the property for the beneficiary. A trust can have more than one beneficiary, trustee, or grantor. Moreover, one individual may assume two or even three roles as grantor, trustee, and beneficiary. Usually, in this case, the trust will provide for at least one contingent beneficiary, who will become an active beneficiary upon the death of the grantor.

For example, a husband and wife could, as co-grantors, transfer property to a trust with themselves as co-trustees, with the husband and wife both as life beneficiaries, and perhaps with their children as contingent beneficiaries of the remainder interest.

Further, a single trust instrument can establish multiple trusts. For example, the previously mentioned trust could provide that, upon the death of the husband and wife, individual trusts would be established for each child. Again, one person may assume all three roles in the trust.

Once you understand the basics of a trust, you'll need to decide on the type of trust that best serves your client's purposes. An important factor to consider is the flexibility of a trust's provisions. General factors to consider include the use of revocable and irrevocable trusts, as well as whether the legal agreement is a testamentary or living trust.

Revocable and Irrevocable Trusts

A revocable trust is a trust that can be amended or revoked by the grantor after it is created. In contrast, an irrevocable trust cannot be amended or revoked by the grantor after it is created.

A revocable trust becomes irrevocable upon the grantor's death since the grantor is no longer able to change or revoke the trust.

Trusts designed to avoid estate taxes are often drafted to be irrevocable, while trusts designed only to avoid probate application frequently are revocable. Avoidance of both probate application and estate tax at the same time is more difficult.

Testamentary and Living Trusts

A testamentary trust is simply one that's not created until after grantor dies. It can be established under your client's will, Revocable Living Trust, or Irrevocable Life Insurance Trust. In addition, all testamentary trusts are irrevocable and cannot be changed - in other words, since a testamentary trust is created after death, the deceased could not possibly amend or revoke it.

A living trust, also referred to as an "inter vivos trust" (meaning "a trust between the living" in Latin), is simply one that's created and funded during lifetime. This includes both revocable and irrevocable trusts. Whether a living trust is revocable or irrevocable will depend upon how the trust has been drafted and what the overall purpose of the trust is.

11.2.3 Power of Attorney

A power of attorney is a document in which one party (donor) gives another party (donee or attorney) the power to act on their behalf.

To be valid, a power of attorney must conform to the requirements of the country in which it is used. A power of attorney has several uses. These can range from the power granted to carry out specific transactions, such as the purchase of a house, when the donor is not able to be present. For example, if the donor is overseas at the time of the sale. Alternatively, the power could be ongoing, provided by an elderly person to someone to handle his or her affairs in case they are not capable of making decisions in the future.

In general, a power of attorney only operates through the lifetime of the donor and ceases upon their death. An exception is where it is expressed that the Power of Attorney is irrevocable in favour of a purchaser; it cannot be revoked by the donor without the concurrence of the donee or even the death, marriage, mental disorder, unsoundness of mind or bankruptcy of the donor. A Power of Attorney can also be expressed to be irrevocable for a fixed period.

Types of Power of Attorney

There are three principal types of power of attorney:

- general power of attorney;
- enduring power of attorney; and
- enduring power of attorney (medical treatment).

General Power of Attorney

A general power of attorney is given so that the person can act 'generally' or the power can be limited to certain specific situations. This power of attorney ceases to be valid when the donor is again fully able to manage their own affairs. A general power of attorney is often used when a donor will be absent for a period and during that time certain transactions need to be carried out.

A limited power of attorney is a general power of attorney prepared for a specific function for a limited period, for example, for a period of 30 days whilst the donor is traveling overseas, or to facilitate the sale of a specific asset.

Enduring Power of Attorney

An enduring power of attorney is one that 'endures' in the event of mental incapacity. This can be used when a person is getting old and fears that an illness could bring incapacity. Alternatively, it could simply be a precaution taken to provide for an unforeseen event, for example, a car accident, that might leave the donor incapacitated. By having power of attorney, the family is able to access assets and income, avoiding additional hardship.

An important point to note is that a general power of attorney ceases when a donor subsequently loses his mental incapacity, whereas an enduring power of attorney remains effective even when the donor becomes incapacitated.

Enduring Power of Attorney (medical treatment)

A variation of the enduring power of attorney is the enduring power of attorney (medical treatment). This allows the donor to make decisions regarding medical treatment. This type of power of attorney would be used when the donor wants medical decisions made which they are unable to make themselves. With such a power of attorney the donee cannot refuse the provision of basics such as food and water nor can the donor authorize euthanasia.

Power of Attorney in Singapore

On 1 Mar 2010, the Mental Capacity Act (MCA) came into effect. The MCA allows individuals to appoint a person(s) they trust to decide and act on their behalf should they lose the capacity to make their own decisions because of various reasons like accident, stroke, or dementia.

The Office of the Public Guardian (OPG) is a Division of the Ministry of Community Development, Youth and Sports (MCYS). The Office supports the Public Guardian in carrying out his functions. The Public Guardian carries out various functions within the framework of the MCA.

These functions include:

- To set up and maintain a register of Lasting Power of Attorney (LPA) and to set up and maintain a register of court orders that appoint deputies,
- To supervise deputies,
- To receive reports from donees and deputies,
- To investigate any alleged violation of any provision in the Mental Capacity Act, including complaints about the way in which donees and deputies are exercising their powers.

The donee will be able to make decisions depending on the powers that were granted to him/her in the LPA. The donee may be authorized to make decisions regarding:

- personal welfare (including health care matters), or
- property & affairs (including financial matters, or
- both personal welfare and your property & affairs.

A donee who is an individual must be at least 21 years old. A donee appointed to make decisions about personal welfare must be an individual.

A donee appointed to make decisions about property & affairs may be:

- an individual (but he/she must not be a bankrupt), or
- a licensed trust company as defined in the Trust Companies Act.

Personal Welfare Donee

Some examples of the decisions a personal welfare donee may be authorized to make include:

- where the donor should live,
- who the donor should live with,
- day to day care decisions (e.g., what to wear and eat),
- what social activities to take part in,
- handling the donor's personal correspondence, and who the donor may have contact with.

Property & Affairs Donee

Some examples of the decisions a property & affairs donee may be authorized to make include:

- dealing with the donor's property – buying, selling, renting, and mortgaging property,
- opening, closing, and operating the donor's bank accounts,
- receiving dividends, income, inheritance benefits or other financial entitlements on behalf of the donor,
- handling the donor's tax matters,
- paying the rent, mortgage repayments and household expenses of the donor,
- investing the donor's moneys, and
- purchasing a vehicle or other equipment the donor needs.

Advantages and Disadvantages

The key advantage of the enduring power of attorney is that it is a powerful estate planning tool that overcomes the basic drawback of the will. The will is drawn up at a certain point in time and is static even if circumstances evolved. An enduring power of attorney allows for a more dynamic and responsive arrangement vested in a trusted individual.

One key disadvantage of the Power of Attorney, both general and enduring, is that financial institutions are typically reluctant and cautious in acknowledging and certifying the authority of the donee, particularly in the case when the document is dated some time ago.

Another disadvantage is the potential for misuse and abuse. A Power of Attorney does grant substantial powers that, when used responsibly by the donee, facilitates transactions for the donor who does not have the time or ability to be physical present at certain signings.

11.2.4 Insurance

Under the laws of most countries, including Singapore, life insurance proceeds that are paid to a named beneficiary (rather than paid to the estate), for example, spouse and children, are not subject to probate. This means that the proceeds are normally quickly paid out to the beneficiaries of the insurance policy. This is often the best source of liquidity when other assets are held in probate.

If your client is concerned that there won't be enough liquid assets in his estate unless he has named his estate as beneficiary, then he can name a trusted family member or the trustee of a testamentary trust as beneficiary of the policy.

If the trustee is also the executor, make sure this person is designated in the insurance policy in his capacity as trustee, rather than as executor. Provide directions outside of your client's will that he would like the recipient of the proceeds to make them available as loans, to the executor, as needed.

Before 2009, if your client had named his spouse or children as beneficiaries of his policy, he would have effectively created a statutory trust under Section 73 of the Conveyancing and Law of Property Act (CLPA). The thinking is that the policy pay-outs are safe from creditors in the event of a bankruptcy. However, the limitations are extensive. Your client cannot change beneficiaries, cannot cash in the policy, and cannot take out a policy loan without the consent of the beneficiaries. There are even doubts that a Section 73 trust can be revoked even if the beneficiaries give their consent. The exception is NTUC Income because its policy proceeds are paid to nominees under a different law

- the Cooperative Societies Act - and this Act allows a cooperative member to make a nomination, which can include spouse, kids, relatives, and friends.

The introduction of the Insurance Nomination law from 1 Sep 2009 under the Insurance Act improved the system. Under the new law, policyowners of life policies or accident and health insurance policies with death benefits are given two options to distribute their policy – trust nomination or revocable nomination.

By making a trust nomination (only for a spouse and kids), the policyowner loses all rights to the ownership of the policy and is revocable only with the consent of the nominees. The new Section 49L provides for a trust nomination quite like Section 73 of the CLPA.

By making a revocable nomination, the policyowner is free to amend the nomination list without the consent of the nominees. The new Section 49M allows for revocable nominations of any legal entity, for example, spouse, children, parents, friends, and trusts. A feature of the proposed revocable nomination is that the policy owner may make a partial nomination of the death benefits under his policy if he so wishes.

One distinctive feature of revocable nominations is that the policy proceeds will be paid to the policyholder if he is still alive and to his beneficiaries if he is dead. If the beneficiaries pre-decease the insured, then the nomination is deemed to be revoked. In such a situation, money will be paid to the policy owner's estate upon death.

Under the irrevocable nominations framework, the proceeds will be paid to the deceased beneficiaries' estate to be distributed in accordance with his or her will, if any, or in accordance with the Intestate Succession Act.

As it turns out, the new system is not retroactive, and does not address the issues associated with policies covered under existing Section 73 trusts as it is not retroactive. Only nominations made after the new framework kicks in will benefit.

11.3 PROPERTY OWNERSHIP

An estate consists of all items of a person's or entity's property considered whether in his or her name, held in partnership or through a trust and all other monies generated, at the time of the person's death. In simple words, it's the assets and liabilities left by a person at death.

An estate includes real property, all personal property, all debts or obligations and all claims against others.

It is important for financial planners to understand the various forms of asset ownership as they will determine the ownership rights of the client and the form and content of the various legal documents and procedures involved in the selling, leasing, financing, inheritance, bequest, or devise of the property.

Here are three main types of co-ownership:

- Tenancy in common -- used when property is held by two or more persons.
- Joint tenancy with right of survivorship -- also used when property is held by two or more persons.
- Tenancy by the entirety -- applies only to husband and wife during the marriage.

Tenancy in Common

A form of joint ownership of property without rights of survivorship is when each owner owns an undivided specific percentage of the property.

When one owner dies, their ownership rights will pass to their estate or under the terms of their will or Revocable Living Trust, not to the other tenant-in-common owner or owners of the property (unless the other owners are the deceased owner's heirs at law or named beneficiaries in the will or Revocable Living Trust). This is usually the default form of ownership where an account is held by two or more people. It is also how multiple beneficiaries inherit property through intestacy, a will or Revocable Living Trust after someone dies.

Joint Tenancy

Joint Tenancy is a type of joint ownership of property where two or more people own the title to an asset together and simultaneously. When one owner dies, the surviving owner or owners immediately become the new owners of the property.

The property passes outside of probate instead of to the deceased owner's heirs by law or under the terms of the deceased owner's last will or Revocable Living Trust. This type of ownership can be used with bank and investment accounts, stocks, bonds, business interests, and real estate. It is usually not the default form of ownership when an account is held by two or more people; instead, it is usually "tenants-in-common."

Tenancy by the Entirety

A special type of joint ownership of property with rights of survivorship between a husband and wife recognized in some countries, but not in Singapore.

When one spouse dies, the surviving spouse immediately becomes the sole owner of the property. The property passes outside of probate instead of to the deceased spouse's heirs by law or under the terms of the deceased spouse's will or Revocable Living Trust. It is usually not the default form of ownership when an account is held by married couples unless the property involved is real estate. Depending on state laws, this type of ownership can be used for bank and investment accounts and real estate. It also offers creditors protection in some states where it is recognized.

The primary difference between tenancy by the entirety and joint tenancy is that joint tenants may deal with the property as they wish. If one joint tenant decides to convey her interest in the property, that interest is conveyed, and the joint tenancy is destroyed. In tenancy by the entirety, each tenant effectively owns the entire estate. Therefore, neither can deal with the property independently of the other.

11.4 BUSINESS PROTECTION PLANNING

Many individuals believe that the transition from an active work life to a comfortable and rewarding retirement merely requires the financial ability to maintain a particular lifestyle. These persons tend to equate retirement planning with investment strategy just as some financial service providers consider estate planning to be primarily a tax problem.

Effective retirement, however, involves much more than sufficient financial resources and reasonable health for persons who have led organizations and have stepped down from CEO positions.

For retiring family business owner-managers, the transition to retirement is even more complicated as personal issues are generally intertwined with issues of leadership succession and development, business continuity and viability, ownership and wealth transfer, organizational governance, and family harmony.

Accordingly, the design and implementation of successful retirement programs present a great challenge for family business owner-managers and financial planners alike.

Financial planners can provide important services for family business owner-managers. These services include not only the development of traditional financial plans and asset management, but also assistance with estate planning and wealth transfer, business valuation and succession planning.

11.4.1 Why Business Succession Planning

Succession refers to the transfer of the management and/or the control of a business. Ownership succession focuses on who will own the business, when and how will that happen. Management succession focuses on who will run the business and what changes will be instituted.

Succession planning is a multidisciplinary process that presents business owners with a comprehensive and strategic approach to the orderly transition of the management and ownership of their companies.

Some of the benefits to companies and owners who plan properly are:

- Survival and growth of the business.
- Preservation of family harmony.
- Minimization of estate and income taxes.
- Facilitation of retirement.

11.4.2 Types of Business Organizations

The way a business is organized, either as a sole proprietorship, partnership, or limited liability company, affect business succession planning. For example, if a business is incorporated, at the death of an owner, ownership is passed to his heirs as corporate shares rather than as business property. Transferring of shares entails the use of estate planning techniques different from those used in transferring business property. Much consideration needs to be given to questions of business organization as an estate plan is mapped out and modified over the years.

Most small businesses are organized as sole proprietorships. That does not mean that these operations are not family businesses. In most instances the spouse and children are involved in the operation. The business may be organized so that the family receives wages for its labour contributions to the business.

A partnership, and especially a limited liability company, is more complex legally, operationally, and tax-wise than a sole proprietorship. It is important for your clients, before they leap into a partnership or company, be sure to have adequate understanding of the requirements, limitations, and possible results of a change in the form of the business. Often the same business or estate objectives can be fulfilled within the framework of a sole proprietorship.

11.4.3 Buy-Sell Arrangements

Before a business partnership or company begins, the parties involved should agree upon how the partnership will be formed, how it will be operated, and how it will be dissolved. Agreement as to the imminent formation of the partnership should always be reached as it could have very important implications.

Operation is also often agreed upon although many times it is unclear how the partnership will operate after a few years when conditions have changed. Usually, however, the dissolution of the business partnership is never even discussed.

Failure to arrive at agreeable provisions for the dissolution of the partnership can lead to frustration, disappointment, and strained relationships when it becomes necessary to dissolve the partnership. And dissolution will occur someday, either by death, disability, retirement, or by the desire of one or more partners.

A buy-sell agreement is a contract that provides for the future sale of one owner's business interest or for the purchase of a co-owner's interest in the business. Buy-sell agreements are also known as business continuation agreements and buyout agreements.

Under the terms of a buy-sell agreement (assuming you are the seller), both owners enter a contract for the transfer of one owner business interest at the occurrence of a specified triggering event. Typical triggering events include death, disability, and retirement.

Ideally, buy-sell agreements are fully funded, and life insurance is frequently used for this purpose. After determining the value of the business, the owner, and the other parties to the agreement will determine the best way to fund the transaction.

11.4.4 Funding Transfers of Ownership under a Buy-Sell Agreement

The reason a partner leaves the business is important because it determines the procedure used to transfer ownership, how the interest is valued, and how the transfer is financed. Thus, it is recommended that separate provisions be written in the buy-sell arrangement for each type of exit.

At retirement a partner may be willing to receive payments for his or her share of the business over several years. At death, it might be more desirable to settle the payments promptly.

There are three general ways to finance the transfer of a partner's interest.

It can be one or a combination of these methods:

- The selling partners to finance the sale by taking the proceeds in instalments.
- A third-party lender to finance the transfer.
- Life insurance, but only relevant at a death or total permanent disablement (and critical illnesses if covered by the policy).

11.5 COORDINATING CHILDREN EDUCATION PLANNING WITH ESTATE PLANNING

A college or university education is crucial to success in today's job market and will be even more so in the future. It is estimated that by year 2020 at least 40% of each cohort of students in Singapore will acquire a place in tertiary education institutions.

But while Singaporean families are eager to give their children the benefit of higher education, tuition fees are increasing relentlessly. Four years of study at a typical local university can cost around \$25,000 for tuition and books. If a student studies abroad, the cost will be even higher.

Children grow up quickly. More reason to start saving for their education when they're still very young. If you begin early and invest on a regular basis, you can put the power of compound interest to work for your children. For example, as the accompanying graph shows, a modest \$200 a month in savings can grow to \$60,000 by the end of 15 years (assuming an effective 7% annually rate of return).

One way to plan for their children's education is to set aside a specific portion of their savings for that purpose. Alternatively, people can create savings programs which are in their children's names. Currently there are many financial institutions offering various products and schemes to help parents in children education planning.

Parents with minor children have estate planning concerns that are different from parents of adult children. A typical concern is how to provide income for the children if one or both parents die. Another problem is how assets will be managed to provide financial resources needed by the children until they reach adulthood. And a third worry is who will care for the children should both parents die at the same time. If a family has a handicapped child, there are additional considerations.

Most people think of endowment plans from insurance when it comes to planning for their children's educations. However, the quality of the plan itself and how the plan then customized are important. Furthermore, a pure endowment solution is often not the best approach to create an education fund but should be supplemented by an investment plan offering higher returns.

Both parents should also be adequately protected before we begin planning for education for the next generation. Being flexible about the means to reach your financial goals will ensure your money is put to good use at every point in your life.

An estate planning adviser can help parents with minor or adult children to weigh advantages and disadvantages of various estate planning tools and techniques. Every family is different, and each has its own estate planning situations. Often, the most difficult part of the planning for parents is to reach agreement on complex family decisions about lifestyles, values, goals, and relationships.

Summary

This Chapter discussed the importance of estate planning for financial planners and the importance of preparing a valid will. Estate administration was examined. The various trust structures were also studied, as well as how trusts are used for the purposes of estate planning.

The two things that you should keep in mind when considering recommending either discretionary or testamentary trusts are that:

- the trusts must be constructed properly;
- the control of the assets should be secured.

Estate planning cannot be conducted alone without considering other areas of financial planning. Retirement planning and children education planning are key areas that must be carefully considered and included in the planning process. A good financial planner needs to identify and take into consideration the entirety of a client's financial situation both present and into the future. Receiving completely inclusive and holistic advice, you will be far better able to make decisions that ensure your total objectives are more realistically obtained.

Chapter 12: Income Tax Planning

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Introduction

It has long been recognized that tax planning is a legitimate and valuable service provided by financial planners. Financial planners, after years of training and experience, enjoy developing well-reasoned, technically sound strategies, arrangements, and structures designed to legally minimize their clients' tax liabilities.

Taxes are a necessary part of life. Taxation is a fundamental element of virtually all financial planning considerations — investments, retirement planning, and estate planning.

Taxes are expenses that clients are reluctant to incur and, indeed, many will turn to planners to seek ways of reducing their taxation liabilities. However, while it is perfectly legal for an individual or entity to reduce tax payable by legitimate means (the process of tax minimization or avoidance), it is illegal to evade tax. Tax evasion is a serious offence and attracts significant penalties, including imprisonment.

As a financial planner, your roles in relation to taxation planning would include, but are not limited to:

- Providing advice to clients on the utilization of various legal means to minimize taxes; and
- Recognizing the complexity of income tax rules and regulation, alerting the client to the need to seek professional tax advice, as well as advising him to maintain adequate records related to the nature of his financial transactions.

The area of tax planning has several risks attached to it, including running afoul of the anti-avoidance provisions, and the possibility of marriage dissolution complicating any tax planning strategies put in place.

Given the above, it is important that a planner have sufficient knowledge of the practical applications of taxation rules and regulations. For starters, planners must be familiar with the basic concepts of income tax and the approaches to income tax planning.

In Singapore, the law governing income tax is the Income Tax Act (Cap 134) ("ITA") and financial planners should be familiar with the provisions of the Act and other relevant legislations.

Learning Outcomes

1. Understand basic income tax concepts;
2. Identify the types of income which are taxable;
3. Identify the various tax reliefs and rebates;
4. Compute income tax payable;
5. Understand the basic concepts of real property gains tax;
6. Differentiate between tax avoidance and tax evasion; and
7. Explain the basic income tax planning techniques.

Chapter 12 – Income Tax Planning

12.1 INCOME VS. CAPITAL GAIN

Singapore taxes only income. Singapore does NOT tax capital gains. Examples of receipts that are capital in nature are gains on sale of fixed assets and gains on foreign exchange on capital transactions.

In the same vein, capital loss expenses are not allowed as deductions. For example, only gains or losses of an income nature derived by a company from disposal of equity investments in another company are taxable or deductible for tax purposes.

12.2 BASIS OF ASSESSMENT

Basis of assessment is a method for deciding the year that financial transactions should be assessed for taxation.

The year of assessment (YA) runs from 1 January to 31 December and refers to the tax year in which income tax is calculated and charged. The basis period refers to the period that the income is earned, for a particular YA. Singapore adopts a preceding year basis of assessment - The basis period for a particular YA is always the previous year of that YA. YA 2021 refers to the tax period 1 Jan 2021 to 31 Dec 2021. The basis period for YA 2021 is 1 Jan 2020 to 31 Dec 2020.

Any given YA is paid on the income earned in the preceding calendar year (basis year) or, in the case of a company, the financial year ending in the year preceding that YA. (Other countries may adopt a different system, for example, Malaysia adopts a current year basis of assessment - this means that income for the calendar year 2021 is taxable in YA 2021.)

Income tax shall be charged for each YA on the income of any person, accruing in or derived from Singapore or received in Singapore from outside Singapore.

Example: Basis Year for Individuals

Mr. Lee worked as a manager in a manufacturing firm and earned a gross salary of \$180,000 for the period 1 January 2020 to 31 December 2020. For Mr. Lee, the income of \$180,000 will be taxable in the YA 2021.

Example: Basis Year for Companies

The basis period of a company with a financial year end of 30 June for YA 2021 is from 1 July 2019 to 30 June 2020.

12.3 RESIDENCY

Taxation residency is the basis on which taxpayers are subject to or liable for income tax in Singapore. The tax residence status is not bound by reference to the nationality or citizenship and is determined by the application of three residency tests.

There are two quantitative tests (physical presence test and employment test) and a qualitative test, that are independently sufficient to establish residency of an individual.

The two quantitative tests are:

- If a person is physically present in Singapore for at least 183 days (not necessarily consecutive) in a calendar year, he would be treated as a resident.
- If a person exercises an employment in Singapore for at least 183 days (not necessarily consecutive) in a calendar year, he would be treated as a resident.

In respect of the quantitative tests, there are administrative concessions that are granted. If the period of stay (including work) in Singapore is at least 183 days for a continuous period over two years, the individual will be considered a tax resident for both years. If the period of stay in Singapore covers three consecutive years, the individual will be considered a resident for all three years

The qualitative test is:

- If a person resides in Singapore except for temporary absences which are considered reasonable and not inconsistent with his claim to be a Singapore resident, he would be treated as a resident.

The qualitative test depends on the meaning of the words “resides” and “temporary absence”. A person can be considered to “reside” in Singapore even if he is absent from Singapore for a considerable period, as long as the period of absence is considered reasonable. Where “temporary absence” occurs, the period of temporary absence can be taken to form part of such period immediately prior to or after the temporary absence.

Such absence can, for example, be:

- connected with his work in Singapore or attending conferences or seminars or studies abroad
- owing to ill-health involving himself or members of his immediate family
- in respect of social visits not exceeding 14 days in aggregate.

Example: Tax Residency

Mdm Zhuo stayed in Singapore from 06 Feb 2020 to 9 Aug 2020 (186 days). Is she a tax resident for Year of Assessment 2021?

Yes, Mdm Zhuo will be taxed as a resident for YA 2021.

Example: Tax Residency

John, a British, came to stay in Singapore from 1 July 2020 until 1 December 2020 when he turned to UK to attend to his sick mother. On 8 December 2020, he came to Singapore again and stayed until 10 March 2021. Is John a tax resident for the Year of Assessment 2021 under the quantitative test?

The 183 days criterion is not met. John's temporary absence from Singapore between 2 December 2020 and 7 December 2020 cannot be included in the computation of the 183 days in the quantitative test. This concession is only valid in the qualitative test.

Example: Tax Residency

Jasmine Pereira worked in Singapore from 30 Sep 2020 to 1 Apr 2021. Is she a tax resident for Years of Assessment 2020 and 2021?

For YA 2021, 30 Sep 2020 to 31 Dec 2020 is 93 days. For YA 2021, 01 Jan 2020 to 1 Apr 2020 is 91 days. Jasmine stayed in Singapore for a contiguous period of at least 183 days and is considered resident for both Years of Assessment 2020 and 2021.

Example: Tax Residency

Mr Zhao worked in Singapore from 03 Nov 2019 to 07 May 2021. Is he a tax resident for Year of Assessment 2020?

Yes. Mr Zhao will be taxed as a resident for Years of Assessment 2019 to 2021 in light of the administrative concessions for the quantitative test.

Example: Tax Residency

Ms Yong is a citizen in Singapore and has home and social ties in Singapore. She is absent from Singapore for a considerable long period of time working overseas. Is she a tax resident of Singapore for Year of Assessment 2021?

By the Qualitative test, Ms Yong is still considered to be a tax resident of Singapore.

12.4 INCOME

Statutory Income is the aggregate amount of income earned during the basis period from every source, including foreign income received in Singapore.

Total income includes:

- trade income for the accounting year;
- employment income (including additional wage supplement or bonus) from 1 January to 31 December of the YA and/or
- other income such as rental income from 1 January to 31 December of the YA.

Assessable Income is the Statutory Income remaining after deducting allowable expenses and approved donations.

Personal Reliefs are the deductions that help a taxpayer reduce his tax burden and a system for the government to induce and incentivize certain behaviours changes in the populace, as well as a tool for improving social welfare especially of the disadvantaged and marginalized.

Income tax payable is computed by reference to the Chargeable Income, as ascertained in the basis year for a Year of Assessment. Simply put, Chargeable Income for an individual is the Assessable Income less Personal Reliefs.

A typical tax computation is shown below.

Computation of Chargeable Income

YA2021	\$
Statutory Income	X
Less: Deductible Expenses	(X)
Total Income	X
Less: Donations	(X)
Assessable Income	X
Less: Personal Reliefs	(X)
Chargeable Income	X
Less: Tax Rebates	(X)
Taxes owed to IRAS	X

12.4.1 Foreign Sourced Income

Singapore follows a territorial basis of taxation. Although the concept of locality of the source of income seems simple, in reality its application often can be complex and contentious. No universal rule can apply to every scenario. Whether profits arise in or are derived from Singapore depends on the nature of the profits and of the transactions which give rise to such profits.

Since 2003, Singapore operates a foreign-sourced income tax exemption regime.

12.4.1.1 Companies

A Singapore tax resident company can enjoy tax exemption on its specified foreign income that is remitted into Singapore on or after 1st Jun 2003.

The Specified foreign-sourced income (i.e., foreign-sourced dividends, branch profits and service income) will be exempted from tax if:

- the specified foreign-sourced income has been subjected to tax in the foreign jurisdiction from which the income is received; and
- the headline tax rate of the foreign jurisdiction from which the specified foreign-sourced income is received is at least 15%; and
- the Comptroller is satisfied that the tax exemption would be beneficial to the person resident in Singapore.

As announced in the 2009 Budget Statement, tax exemption will be granted on all foreign-sourced income accrued on or before 21 Jan 2009 to a tax resident company and which is received or deemed received in Singapore from 22 Jan 2009 to 21 Jan 2010 (both dates inclusive). For the tax exemption on foreign-sourced income remitted to Singapore during this period, the “subject to tax” and “foreign headline tax rate” conditions will be temporarily lifted.

12.4.1.2 Individuals

Generally, overseas income received in Singapore on or after 1 Jan 2004 is not taxable, unless:

- it is received in Singapore through partnerships in Singapore.
- the individual is employed outside Singapore on behalf of Government of Singapore.
- the overseas employment is incidental to the Singapore employment. For example: As a regional sales manager employed by a Singapore company, Mr Ng is required to travel overseas frequently to meet clients in regional countries. The employment income is fully taxable in Singapore since the travelling is incidental to the Singapore employment.

12.4.2 Calculation of Statutory Income

The income of an individual who is a resident in Singapore that is liable to tax can come from various sources.

These income sources may include, for example:

- Business Income
- Charge (Alimony and Maintenance payments are tax exempted from YA 2012)
- Employment Income

- Estate/trust Income
- Pensions from approved pension schemes (May be exempted)
- Rents from property
- Royalty
- Withdrawals from Supplementary Retirement Scheme (SRS)

The following capital gains or receipts are not subject to income tax:

- Annuities, unless they are received from (i) Partnership, (ii) Supplementary Retirement Scheme (SRS), or (iii) Annuity policy bought by your employer, in place of a pension.
- One-tier exempt dividends
- Gains from sale of property, shares, and financial instruments (Unless trading in nature)
- Income received from overseas
- Interest from Deposits
- National Service Recognition Award
- Government Pensions
- Winnings (Toto, 4D, etc)

A company is liable to pay tax on income accrued in or derived from Singapore or income received in Singapore from outside Singapore in respect of:

- gains or profits from any trade or business
- income from investment such as dividends, interest, and rental
- royalties, premiums, and any other profits from property
- other gains of an income nature

Income may be exempted from tax under the provisions of the Singapore Income Tax Act. Some examples are:

- Exempt shipping income derived by a shipping company
- Foreign-sourced dividends, branch profits & service income received by a resident company that satisfies the qualifying conditions.

12.5 DEDUCTIBLE EXPENSES

12.5.1 Employment Expenses

Employment expenses are expenses which are wholly and exclusively incurred in the production of an individual's employment income in Singapore. These expenses can be deducted from employment income.

Claim is valid only if ALL conditions below are satisfied:

- Expenses are incurred when carrying out official duties.
- Expenses are not reimbursed by the employer.
- Expenses are not of capital/private in nature.
- Expenses are incurred on public transport.

Examples of allowable expenses include:

- Entertainment expenses incurred in entertaining clients.
- Travelling expenses incurred on public transports.
- Subscriptions paid to professional bodies or society.

Examples of wrongful claims include:

- Entertainment expenses incurred on meals with colleagues.
- Travelling expenses incurred on your own motor vehicle.
- Travelling expenses incurred to and from home and office.
- Payment in lieu of notices paid to employers for failing to serve sufficient notice period before leaving a job.

12.5.2 Rental Expenses

For an expense to be deductible from rental income derived in Singapore, the expense must be incurred (i) solely for the purpose of producing the rental income; AND (ii) during the period of tenancy.

Examples of claimable expenses are:

- Interest on mortgage loan
- Property tax incurred during the rental period
- Premiums paid on fire insurance
- Repairs done to restore the property to its original state
- Cost of maintaining the property
- Commission paid on getting subsequent tenant
- Cost of renewing a lease or getting a new tenant (except for the first tenant)

Common incorrect expense claims include:

- Expenses such as mortgage interest incurred on personal loans. Only interest on mortgage loan can be claimed.
- Expenses of a capital nature like loan repayments, depreciation of furniture and fittings, cost of renovation, additions and alterations, agent's commission and legal cost incurred to secure the first tenant.

12.6 DONATIONS

The following types of donations will qualify for a double tax deduction (twice the amount of donation):

- Cash Donations
- Shares Donations
- Computer Donations
- Artefact Donations
- Public Art Tax Incentive Scheme
- Land and Building Donations

Note that for Cash donations, tax-deductibility applies to any approved Institution of a Public Character (IPC) or the Singapore Government that benefit the local community. However, donations made to a charity without approved IPC status is NOT tax-deductible.

To continue encouraging Singaporeans to give back to the community and to provide strong support for the charity sector, the Minister for Finance has announced in Budget 2021 that the 250% tax deduction for qualifying donations will be extended for another two years till 31 December 2023.

Kindly refer to IRAS website for the latest updates:

<https://www.iras.gov.sg/IRASHome/Individuals/Locals/Working-Out-Your-Taxes/Deductions-for-Individuals/Donations/>

From 1 Jan 2005, double tax deduction is allowed for:

- donations to name Institutions of a Public Character (IPC), IPC facilities, events or programs,
- donations to name facilities of approved beneficiaries (including artifacts and public sculptures) under any of the other approved donation programs,
- donations under any of the approved donation programs where the IPC or approved beneficiary acknowledges the donation by including the donor's name or logo in the IPC's collaterals (e.g., banners, publications, advertisements).

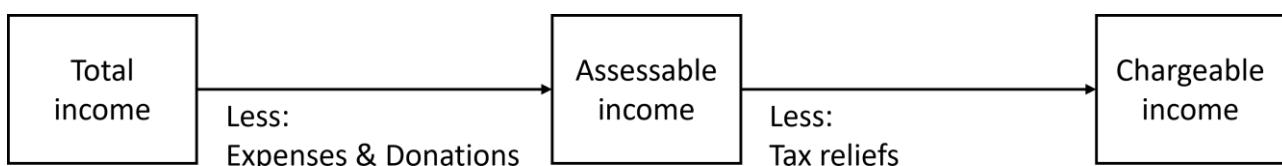
Double tax deduction will not be given:

- in cases where the donor is essentially advertising at the IPC facility, event, or program.
- if the donations or gifts are for a "foreign charitable purpose", they are not tax deductible even though they are made to an approved Institution of a Public Character (IPC).

12.7 PERSONAL RELIEFS

The Chargeable Income of resident individuals is computed by deducting the Personal Reliefs from the Assessable Income.

Tax reliefs are given as standard deductions against your assessable income. Such reliefs are given only to tax resident individuals.



The types of reliefs that you could claim for any Year of Assessment (YA) depends on your personal circumstances prevailing in the calendar year immediately before that YA.

Example

You are married on 1 Sep 2021. For YA 2021, you will be eligible to claim tax relief of \$2,000 for supporting your spouse in the year 2021.

Please refer to [IRAS website](#) for the tax deduction for individuals and the qualifying conditions.

12.8 TAX RATES

Singapore personal tax rates start at 0% and are capped at 24% (for chargeable income above S\$1,000,000) for residents, and a flat rate of 15% or the progressive resident tax rates, whichever is the higher tax amount for non-residents.

Singapore corporate tax rate is capped at a low ceiling of 17%. Singapore attracts a good share of foreign investment due in no small part to its attractive low tax rates. Singapore adopts a single-tier corporate tax system, where tax paid by a company on its profits is not imputed to the shareholders (i.e., dividends are tax free).

12.8.1 Residents

All resident individuals are liable to tax on income accrued in, derived from, or remitted to Singapore. They are taxed on their chargeable income after deducting personal reliefs at a graduated rate from 0% to 24%. Effective YA 2012 the income taxes have been reduced slightly although there is no reduction in the top tier rate.

Visit [IRAS website](#) to obtain the updated Individual Income Tax Rates.

12.8.2 Non-Residents

A non-resident individual will be taxed only on income earned in Singapore. Employment income is taxed at 15% or resident rate, whichever gives rise to a higher tax amount. Director's fees, consultation fees and all other income received are taxed at 24% from YA 2024 onwards.

12.8.3 Corporate

A company is taxed at a flat rate on its chargeable income regardless of whether it is a local or foreign company. From YA 2010, the flat rate has been 17%, one of the lowest in the world. Partial tax exemption and tax exemption scheme for new start-up companies are available.

Singapore has also concluded more than 50 bilateral comprehensive tax treaties to help Singapore companies minimize their tax burden.

12.9 TAX REBATES

The 'Parenthood Tax Rebate' (PTR) is a rebate given to married Singaporean tax residents to encourage them to have more children. The PTR can be used to offset income tax payable.

From YA 2009 onwards, the PTR has been extended to include 1st child, 5th child and subsequent children.

Visit the [IRAS website](#) for more information.

12.10 OTHER TAXES

Besides Income Tax, the astute financial planner needs to be aware of the other major taxes that are prevailing in Singapore, such as property tax and motor vehicle taxes.

- **Property Tax**

This is a tax on owners of properties based on the expected rental values.

- **Estate Duty**

This was abolished since February 15, 2008.

- **Motor Vehicle Taxes and Import Duties**

This refers to schemes such as Certificate of Entitlement (COE), the Additional Registration Fee (ARF) and Excise Duty (ED), which tax on owners of motor vehicles.

- **Customs & Excise Duties**

Singapore is a free port and has relatively few excises and import duties. Excise duties are imposed principally on tobacco, petroleum products and liquors. Also, very few products are subject to import duties. The duties are mainly on motor vehicles, tobacco, liquor, and petroleum products.

- **Goods & Services Tax (GST)**

The GST is a tax on consumption. The tax is paid when money is spent on goods or services, including imports. This kind of indirect tax is also known as Value Added Tax (VAT) in many other countries.

- **Betting Taxes are duties on private lottery, betting & sweepstake.**

Stamp Duty is imposed on commercial and legal documents relating to stock & shares and immovable property.

- **Foreign Worker Levy**

The foreign worker levy is imposed to regulate the employment of foreign workers in Singapore.

12.11 INCOME TAX PLANNING

Income tax planning may be defined as the development and implementation of appropriate strategies to reduce, affect the timing of, or shift either current or future income tax liabilities. Recommended strategies are based not only on the tax consequences themselves, but also considering the individual's overall financial goals.

In the context of financial planning, income tax planning is driven by your client's overall financial planning goals and is not an end.

While you may often perform consultations or engagements that are entirely tax-oriented, tax planning as part of a financial planner's engagement assumes integration with other financial planning areas. For example, an income tax projection is necessary to determine cash flow available to fund goals.

Income tax planning has two primary objectives: – minimizing overall income tax liability and fulfilling overall financial planning goals with minimal tax consequences.

These objectives are addressed through three broad strategies:

- reducing the income tax consequences of a transaction or arrangement;
- shifting the timing of a taxable event; and
- shifting income to another taxpayer.

12.11.1 Reducing Tax Liability

Tax reduction strategies are those that produce tax-free income, re-characterize non-deductible expenditures as deductible expenditures, or result in income being taxed at a lower tax rate. The applicable strategies include:

- shifting investments from shares to corporate bonds; and
- securing a housing loan to generate deductible interest expense.

12.11.2 Timing of Taxable Events

Strategies for the timing of income tax liabilities involve tax deferral or acceleration, by shifting the timing of either income or deductions, such as:

- contributing to Central Provident Fund (CPF) and gratuities.
- selling appreciated assets to maximize capital gains treatment.
- converting income investments to growth investments.

12.11.3 Shifting Income

Income shifting strategies focus on transferring income from one individual or entity to another in a lower tax bracket, reducing the overall tax paid on the income.

For example, a husband with marginal tax rate who is at the highest bracket, transfers a property with rental income to his homemaker wife, who has no income.

One hurdle that clients face in these strategies is the loss of control over the income-producing asset.

Other considerations in developing tax planning strategies include:

- use of assumptions -- The appropriate rates to be used for projections of short- and long-term income tax projections must be determined;
- audit risk -- Income tax planning strategies carry some risk of audit by the Inland Revenue Board (IRB);
- cost benefit -- Tax planning strategies should be evaluated considering their costs, including fees, implementation costs, and the time and effort required by the client; and
- changes in tax laws -- In addition to monitoring changes in the client's situation, tax strategies will be impacted by subsequent changes in tax laws.

12.12 TAX COMPLIANCE

Income tax compliance is not a de facto part of your income tax planning services. Since some clients may not distinguish between planning and compliance, it is important that you clearly manage client expectations, preferably in an engagement letter, whether your services include tax compliance services.

Summary

Successful financial planners are typically adept at - and enjoy the challenges of - the technical aspects of tax planning, but they often fail to follow through with the execution of the planning transaction or structure. Ensuring that the plan is properly executed and documented may seem mundane, but it is necessary to secure the intended benefits. Planners often see the execution of a tax plan as the client's responsibility, but this is a recipe for failure and, more importantly, is not in the planner's best interest. Clients rarely understand the technical nuances of the transactions, agreements, or structures involved in the plan. They also rarely appreciate the importance of adhering to the planner's detailed instructions. Even relatively sophisticated clients typically have little time or inclination to follow the planner's carefully crafted structures.

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3 Temasek Avenue, Centennial Tower, #21-00 Singapore 039190

Email: support@fpas.org.sg

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