澳門金融管理局
AUTORIDADE MONETÁRIA DE MACAU

Insurance Intermediaries Qualifying Examination

Investment-linked Insurance Examination

Study Notes

2022 Edition

“Investment-linked Insurance Examination – Study Notes”

Information Update

This "Information Update" aims to update the text of the Investment-linked Insurance Examination – Study Notes (2010 Edition)" in response to the development of the insurance industry and local insurance laws and regulations.

Monetary Authority of Macao
March, 2022

PREFACE

These Study Notes have been designed to prepare candidates for the Insurance Intermediary Qualifying Examination in the subject of "Investment-linked Insurance". They are intended to give candidates a general introduction to the subject and reference materials, where identified in these Notes, serves to provide candidates with a wider coverage of the syllabus and can be used selectively by candidates who wish to investigate a topic in particular detail. The examination, however, will be based on these Notes.

Some parts of these Study Notes are reproduced, with the kind consent of the Hong Kong's Insurance Authority, from the text prepared for the purpose of the Insurance Intermediaries Qualifying Examination. Appreciation is also due to the Macau Insurers' Association, Macau Insurance Agents and Brokers Association, and Federation of Macau Professional Insurance Intermediaries for their valuable advice and assistance in the preparation of these Notes.

We hope that the Study Notes can serve as reliable reference materials for candidates preparing for the Examination. While care has been taken in the preparation of the Study Notes, errors or omissions may still be inevitable. You may therefore wish to make reference to the relevant legislation or seek professional advice if necessary. As further editions will be published from time to time to update and improve the contents of these Study Notes, we would appreciate your feedback, which will be taken into consideration when we prepare the next edition of the Study Notes.

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NOTE

If you are taking this subject in the Insurance Intermediaries Qualifying Examination, you will also be required, unless exempted, to take the subjects "Principles and Practice of Insurance" and "Life Insurance". Whilst the examination regulations do not require you to take those two subjects first, it obviously makes sense to do so. Those subjects lay a foundation for further studies and many of the terms and concepts found in those subjects will be assumed knowledge with this subject.

CHAPTER 1
Introduction To Investment-Linked Insurance Policies

1.1 DEFINITION

As specified in Part 2 of the Schedule of Classes Of Insurance under the Macau Insurance Ordinance, Decree Law No. 27/97/M of 30 June amended by Law No. 21/2020, investment-linked insurance policies fall within Class C of Linked Long Term. Linked Long Term Business is defined asthe business of effecting and carrying out of insurance on human life or contracts to pay annuities on human life where the benefits are wholly or partly to be determined byreference to the value of, or the income from, property of any description (whether or not specified in the contracts) or by reference to fluctuations in, or in an index of, the value of property of any description (whether or not so specified).

In order to minimize the confusion with the classification of business between Class A (Life and Annuity) and Class C (Linked Long Term), it is necessary to highlight some of the predominant features of Class C Linked Long Term policy.

Class C policy must either be a life or annuity contract and possess one or more of the following features:

(a) The benefits of the policy are calculated in whole or in part by reference to the value of, or the income from, specified assets or group of assets or by reference to movements in a share price or other index, whether or not subject to deductions in respect of expenses or charges;

(b) The policyholder is given the options to choose the underlying investment assets from a range of investment fund options;

(c) Market Value Adjustment or adjustment of similar nature is applied under the terms of policy for the calculation of surrender/withdrawal value with the exception of where the market value adjustment is applied to single premium non-linked policies for refund of premium during the Cooling-off Period (please refer to section **3.13.4** for details); and

(d) The policy is designed in such a way that the policyholder is contractually bound to bear partly or wholly the risk of the investments to which the benefits are linked.

In other parts of the world, investment-linked insurance policies are also known by the following terms:

(a) ***Unit-linked life/annuities***: This is a common term used in the UK. The term "unit-linked" illustrates that the values of the policies are linked to the price of the units.

(b) **Variable life/annuities:** This is the common term used to describe investment-linked business in the US. The term "variable" illustrates that the returns vary with the value of the underlying investment. There are two different types of variable life insurance.

- ***Fixed premium variable life*** is based on whole life. When talking about this product, people generally drop the "fixed premium" qualifier and refer to the product simply as variable life. It provides a fixed premium payment schedule.

- ***Flexible premium variable life*** is based on universal life (a flexible premium derivative of whole life). This product may also be called "variable universal life" or "universal variable life." When talking about this product, people generally retain the "flexible premium" or "universal" qualifier since "variable life" alone usually indicates the fixed premium version of the product. It combines the premium and face amount flexibility of universal life insurance and adopts its unbundling of the pricing factors with the investment variables characteristics of variable life policies.

In Macao, investment-linked annuities are not commonly found. The most popular type of investment-linked insurance product is ***flexible premium variable life insurance*** (also called "variable universal life" or "universal variable life**").**

1.2 CONCEPT

As mentioned in the previous section, investment-linked insurance policies are insurance policies with its policy value directly linked to the performance of its underlying investment. This may be achieved by formally linking the policy value to units in a special unitized fund run by the life insurer, or linked with the units in a unit trust (or mutual fund). The value of the units is directly related to the value of the underlying assets of the fund. This value may fluctuate according to the performance of the investments concerned.

Investment-linked policies may come in a variety of forms, but there is a common factor. All or part of the premiums will be used to purchase units in a fund at the price applicable at the time of purchase. The value of the policy will then fluctuate according to the value of the units allocated to it.

How the investment-linked insurance policies work somewhat differs from the traditional life insurance and annuities. The net premium payments from traditional life insurance and annuity policies are invested in the company's general investment whose earning helps to accumulate the cash value and pay benefits to policyholders. The death benefit and cash value of these policies are usually fixed and guaranteed. Under these types of policies, the insurance company assumes the investment risk. If investment performance is more than what is required to fund the insurance contract's guarantees, the difference is added to the company's profit. Sometimes, part of such earning will be distributed to the policyholders and/or shareholders in the form of dividends. If investment performance is unfavorable, the insurance company bears the loss.

However, for the investment-linked insurance policies, the net premium payments are invested in the investment funds accounts that are separated from the company's general assets and are therefore entirely separated from the insurer's liabilities. The policy value, death benefit or annuity payment amounts will vary depending on the performance of these investment fund accounts. With these types of policies, all the investment risk is borne by the policyholder. This allows investment gains to be passed through to the policyholders, but it also means that investment losses are borne by the policyholders.

A variety of assets may be used for linking purpose including equities (ordinary shares), fixed income securities (money market instruments and bonds) and a whole range of cash and other security/asset funds.

All these investment-linked insurance products and the individual investment funds included in the product for the selection by prospective clients are required to be filed with the Monetary Authority of Macao.

Finally, it should be noted that only insurance companies authorized under the "Macau Insurance Ordinance" to carry on Class C business in Macao can underwrite investment-linked insurance policies.

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Representative Examination Question

*The examination will consist of **50** multiple-choice questions. These questions will be very straightforward, involving a simple choice from four alternatives. An example is shown below.*

Multiple-Choice Question

1. If a company wants to underwrite investment-linked insurance policies, filing should be made with which of the following organizations:

   (a) the Macao Insurers' Association;

   (b) the Monetary Authority of Macao;

   (c) the Macao Insurance Intermediary Association;

   (d) the Federation of Macao Professional Insurance Intermediary.

[Answer may be found in **1.2**]

Note: *The answer to the above question is for you to discover. This should be easy, from a quick reference to the relevant part of the Notes. If still required, however, you can find the answer at the end of the Study Notes.*

CHAPTER 2
Investments

Since the value of an investment-linked insurance policy depends on the performance of its underlying investment portfolio, in order to fully understand its nature, it is necessary to have a basic knowledge of investment.

This section is divided into three parts. In the first part, we review the basic concepts of investment with special emphasis on investment objective, risk and return, as well as the constraints faced by investors. The second part gives a detailed description of the major types of investment assets including money market instruments, fixed income securities, equities (shares), real estate, financial derivatives and low-liquidity investments, and Investment funds. Insurance products are discussed in the final part.

2.1 INVESTMENT MOTIVATIONS

What motivates a person to invest, rather than spending their money immediately? The most common answer is to accumulate wealth and provide for the future. To increase wealth, a person needs to do something to the savings to make them grow. What a person does with the savings to make them increase over time is investment. Thus, investment is the commitment of money for a period of time in order to derive larger future payments. The definition of investment is ***to sacrifice present value for future value*.**

2.1.1 Risk of Investment

When we talk about investment, most people focus on how much money they can make without any detailed analysis or are even ignorant of the risks involved in the investment. It is imperative for an investor or an advisor to fully understand the concept of risk before embarking on investment. Therefore, we start with a detailed look at risk.

2.1.2 Meaning of Risk

Risk is the possibility of loss or injury. In investment terms, it is the uncertainty associated with the end of period value of the investment. Investors are however, more concerned with the downside risk, which represents the possible loss or reduction of the original sum invested - ***financial risk***. In the investment industry, the existence of financial risk means that it is possible for investors to lose money, and that there is no absolute guarantee of capital growth.

Financial risk is often perceived to have increased in recent years. The equity market crash in 1987, the Sterling Pound's exit from the Euro Exchange Rate Mechanism in 1992, the bursting of the bond market bubble in 1994, the Asian markets meltdown in 1997-1998, the 911 terrorists attack in 2001, the SARS outbreak of 2003, the financial crisis of 2007–2008 and the US-China Trade War that began in 2018, have all left their marks in the minds of investors. This perceived increase in financial risk, together with a growing awareness among investors of thevarious techniques and products for managing it, has led to a sharp increase in demand for risk management services.

2.1.3 Types of Risks

Investors are sometimes mistaken by the concept that they can avoid risks by just placing their asset in a bank account. This act however, is still subject to two risks:

- default risk in that the bank they invest in may go out of business; and
- inflation risk in that higher prices of goods in the future will reduce the purchasing power of the saved funds.

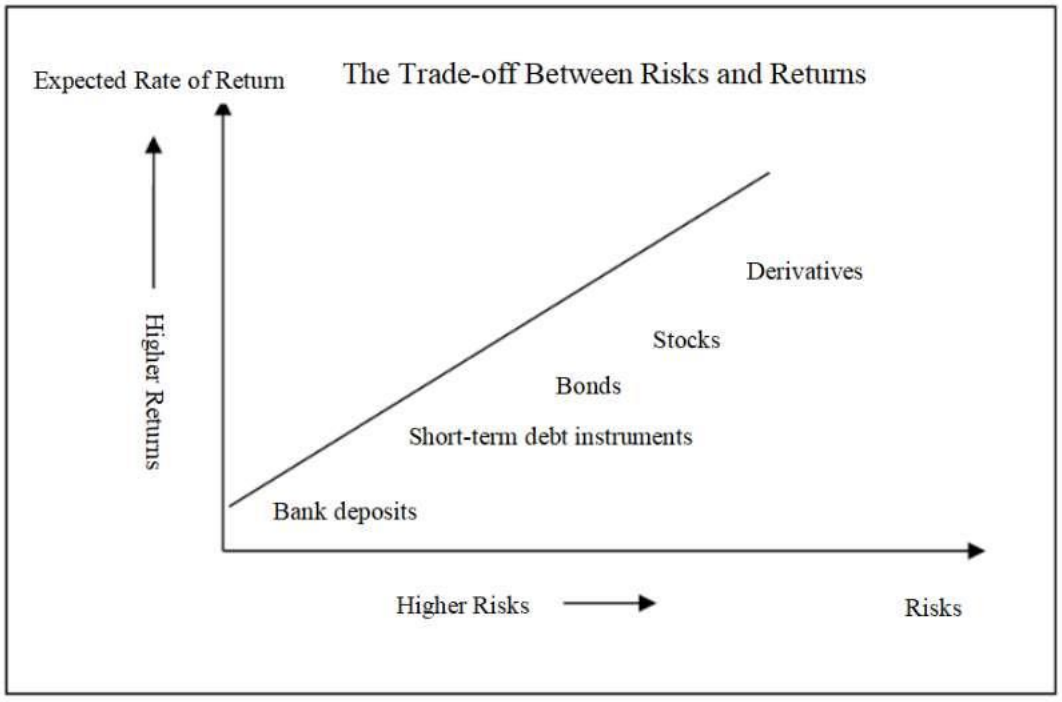
There is an endless list of risk factors in investment to the average investors. The following list covers the more common and important risks:

- ***Market risk –*** basic demand and supply in the market will affect the price of investment instruments. An investor will suffer a loss if he/she has to sell an asset when the price drops below his/her original purchase price.
- ***Company risk –*** negative developments such as the loss of market share, the failure of a new product launch will have an adverse effect on a company's financial status and thus its share price.
- ***Economic risk*** – the possible impact of an overall economic slowdown.
- ***Inflation risk*** – the loss of purchasing power as return on investment does not match the inflation rate.
- ***Default (credit) risk*** – the potential inability of a debt issuer to pay interest and repay principal.
- ***Interest rate (price) risk*** – the price fluctuation of certain fixed income investments prior to maturity due to current market interest rate changes.
- ***Liquidity risk*** – the inability to liquidate (sell) an investment or the need to pay a substantial cost to liquidate.
- ***Reinvestment-rate risk*** – the inability to reinvest interim cash flows or a mature investment at the same or higher rate of return.
- ***Exchange (currency) risk*** – a foreign financial investment upon maturity may have to be converted into home currency at a less favourable rate due to foreign exchange rate fluctuation.
- ***Sovereign or Political risk*** – political instability may cause governments to take actions that are detrimental to the financial interest of financial investment instruments in that country.
- ***Operational risk*** – The risks faced by financial institutions in processing transactions, such as lack of information systems, poor internal management and monitoring systems, or human error.

2.1.4 Risk-return Tradeoff

Inevitably, investing involves risk. Any investment involves a tradeoff between risk and expected return. As a general rule, the higher the return an investor seeks, the higher the risk he/she must be prepared to accept. The higher return is to compensate for the higher risk of the investment. As such, investors should be aware of the risks and returns of different asset classes in making investment decisions.

The following graph provides a perspective on the relationship between the risks and returns of several investment assets. Please note that the graph is not drawn to proportion but it does give a relative position of the level of risk and expected return of those assets.



2.1.5 Risk Reduction Techniques

There are a few proven techniques for reducing risk in investment. They are diversification, dollar cost averaging, and time as a risk moderator.

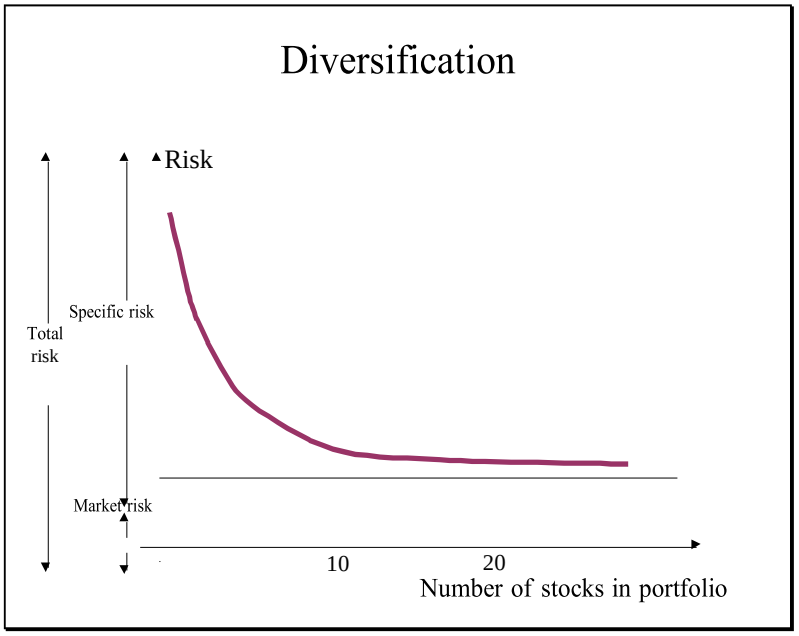
(a) Diversification

Diversification means owning different issues of the same asset class or different asset classes within a portfolio of investment, or investing in different markets, regions or countries. Diversification is a normal practice of investment managers to reduce the risk without substantial reduction in returns. It has been demonstrated that putting assets with low correlation in their return together in a portfolio could reduce substantially the overall risk of the portfolio without giving up return.

Why does diversification reduce risk? This is because normally markets do not all move in tandem and some financial instruments react differently to market movements. That is, one instrument may drop in value but the other may increase in value at any point in time responding to the same market/economic movement. For example, a downturn in the economy will normally lead to a fall in the equity market (economic risk) and at the same time give a boost to the bond market (lower interest rate, higher bond price). Another example is that a drop in interest rates will reduce thereturn on term deposits but increase the price for bonds with higher couponrates.

A “balanced portfolio” - investing in a variety of investment assets tends to be less volatile than one investing in a single asset, because the investor is in effect spreading the risks. Where investment is concerned, one should always avoid putting all eggs in one basket. This is also the underlying concept of investment funds.

The following diagram shows how the total risk of a portfolio decreases when more assets are added into the portfolio.



(b) Dollar Cost Averaging

It is an investor's dream to be able to enter the market at its bottom but nobody knows when a market reaches its bottom. To the contrary, we often see people got caught at the top of the market. Investors want to buy low and sell high but turn out to buy high and sell low.

Dollar cost averaging is a technique to prevent investors from putting all their money in the market at the inappropriate time. This involves investing a fixed sum of money at fixed intervals of time. Let us look at the following example. Suppose an investor wanted to invest HKD150,000 in stock A but he/she was not sure whether it was the suitable time to enterthe market. He/she therefore decided to split his/her capital into 5 equal sums of HKD30,000 and buy stock A worth of HKD30,000 in the middle of each month. The following table illustrates his/her transaction records.

Date	**Market Price**	**No. of share Bought**
15-Jan	HKD50	600
15-Feb	HKD60	500
15-Mar	HKD40	750
15-Apr	HKD25	1,200
15-May	HKD50	600
Total no. of shares bought		3,650
Average cost per share		HKD41.10

We can see from the table that although at the end of the period the stock price of A was virtually unchanged at HKD50, the same level when the investor started his/her investment, the investor has built his/her portfolio at HKD41.10. The reason is that with a fixed sum of investment, the investor bought more shares when the stock price was lower and bought less when it was higher, a lower average cost was thus achieved.

(c) Time as a Risk Moderator

Time not only works for investors through the power of compounding (please refer to **Appendix A**) but also helps to dampen the risk of investments. Look at the Hang Seng Index chart below. We see that the stock market basically follows an upward trend with interim fluctuation. Suppose an investor was unfortunate enough to enter the market at thepeak in 1997. If he/she was able to keep his/her position till year 2000, he/she would have a chance to get out with a small gain. However, ifhe/she was a short term investor and had to close his/her position in 1998, the story would be very different.

It must be pointed out that although most stock markets tend to come back and surpass their previous high if investors can stay long enough in the market, the waiting period could be indefinite. For instance, the prices of some Japanese stocks have yet to recover to the levels of 10 years ago.

2.2 INVESTMENT CONSIDERATIONS

After we have gained a basic understanding of risk in investment, it is time for us to move on to see how investment should be managed in an orderly manner.

2.2.1 Investment Objective and Risk Tolerance

The first step of investment should be the formulation of an investment objective. When asked about their investment objective, most investors would say they want to make money. And when asked about how much money would they want to make? The typical answer is the more the better. However, such answers are not good enough.

An investment objective must be specific and realistic, taking into consideration the investor's personal needs, risk tolerance and investment constraints. A person's investment return objective may be stated in terms of an absolute or relative percentage. For example, the investment objective is to achieve an average annual rate of return of 15%, or 1% above the inflation rate, for the next 10 years. Also, it may be stated in terms of a general goal, such as capital appreciation, capital preservation or current income.

In setting an investment objective, risk tolerance is the most importantconsideration. As we have seen in the risk reward trade off discussion, huge risk accompanies high return. An understanding of the level of risk tolerance is needed before a realistic investment goal can be set.

Risk tolerance is the largest amount of risk that an investor is willing to take for a given increase in the expected return. Each investor is said to have a risk tolerance factor, i.e. the extent to which he/she is prepared to risk a loss on his/her investment in return for chances of an enhanced return. An investor who prefers aninvestment with less risk to one with more risk, assuming that the two investments offer the same expected return is known as a risk-averse investor. One standard way of classifying investors, in relation to their risk tolerance is:

(a) ***Conservative***: such an investor is more concerned with capital protection than with high rates of return. He/she may also be described as risk averse, i.e. not a gambler ready to play for high stakes.

(b) ***Aggressive***: such an investor is much more ready to accept risk and to improve chances of enhanced returns. This necessarily involves variations of return and in the short-term at least could involve losses.

(c) ***Balanced***: the happy medium, where a degree of risk is acceptable, but where protection of capital remains important.

In general, different stages of life also influence risk appetite. As age increases, the investor's investment strategy will usually adjust to fit new goals and circumstances. On the other hand, the ability of a person to take risk also affectsthe level of risk tolerance. Generally, higher net worth investors have higher risk tolerance than lower net worth investors.

Many tests have been developed to help investors to evaluate their risk tolerance. It is not a bad idea for an investor to take such a test to get a better understanding of his/her tolerance level before investing.

2.2.2 Other Investment Constraints

Apart from investment objectives and risk tolerance that set limits on risk and determine the return objective of investment, some other factors also influence investors and need to be considered before making their investments. These factors are:

1. Liquidity requirement;
2. Time horizon; and
3. Tax considerations.

(a) Liquidity Requirement

Liquidity refers to the ability of an investor to sell the asset quickly without having to make a substantial price concession.

An example of an illiquid investment asset would be an antique item. An investor who owns a piece of Tang dynasty porcelain may have to settle for a relatively low price if the item has to be sold within an hour. If the sale could be postponed long enough for a public auction to be set up, undoubtedly a much higher price could be obtained.

Alternatively, an investor who has to sell HKD1,000,000 worth of HSBC common stock within an hour will probably be able to receive a price close to the price that other sellers of HSBC stock recently received.

Investment plan must take into account of the liquidity needs of an investor. A young investor with long-term investment goal probably has very low liquidity need while a retiree living on pension would need regular cash flows. The latter should have part of his portfolio in liquid securities such as money market instruments.

(b) Investment Time Horizon

This is the time period within which the investor intends to make the investment. This is dependent upon the investor's investment objectives, age and current financial condition. Most investment instruments can generally be classified under the following time frames:

- Short term up to 1 year
- Medium term from 1 to 5 years
- Long term over 5 years

As have been discussed previously, time is an offsetting element for risk. One of the proven risk control strategies is for the investor to ignoreshort-term fluctuations in value (not being overly enthusiastic or overly concerned) and focus on the long term. History shows that the longer the investor stays invested, in general, the less likely it is that he/she will experience a negative return.

Investors with short investment time horizons should avoid risky investments because assets may have to be liquidated at an unsuitable time. Investors with long investment time horizon normally have greater risk tolerance because any shortfalls or losses can be recovered from returns in subsequent years.

It should be noted that investment in investment funds, and investment-linked insurance policies, is usually a long-termed investment compared to the purchase of stocks and bonds.

(c) Tax Considerations

Personal taxes are based on an individual's or family's taxable income. In Macao, returns on investment are not normally subject to personal taxation (capital gains or investment income tax).

2.2.3 Summary

As explained above, making investment advice involves securities and funds expertise. Insurance intermediaries should not make suggestion or recommendation on client's investment portfolio. Clients should consider their investment needs and objectives and have a good understanding on the level of risk tolerance, constraints and other unique circumstances of their own in order to make appropriate decision on their investment portfolio.

It should be noted that insurance intermediaries should not make any investment recommendations to their clients. In the selling of investment-linked insurance policies, an intermediary should clearly communicate to the client features and benefits of the insurance policy, but not the comparative risks and benefits of the related investment funds. It is important that insurance intermediaries are prohibited from providing advice on security or fund investments, or assistance on making investment choice.

Although an insurance intermediary is not allowed to provide advice on security and fund investments, the understanding of the various types of investments as well as their related risk and return structures will facilitate in the communication of relevant information to clients as well as assist in the early identification of the type of products that a prospective client may require.

Most insurance companies/brokers have devised their own set of questionnaire to assist their agents/technical representatives in the collection of relevant client information for the above noted purpose. Such information includes nationality (tax purposes), number of dependents, cash flow, investment objective and preference, current asset portfolio and insurance coverage. Please refer to section **3.13.1** for a more detailed discussion on this topic.

2.3 INVESTMENT ASSETS

Investment assets are usually grouped into different asset classes according to their common characteristics. Each type of investment asset has its own particular potentials and drawbacks. The following is a list of the most common asset classes that we will discuss in some detail in the following sections:

1. Money Market Instruments
2. Fixed Income Securities
3. Equities
4. Real Estate
5. Derivatives
6. Low-liquidity Investments
7. Investment Funds
8. Life Insurance

2.3.1 Money Market Instruments

There are two categories of money market instruments, namely, bank deposits and negotiable short-term debt instruments.

(a) Bank Deposits

This means simply placing the money with a "bank" for term or demand deposits. In Macao, only financial institutions authorized by the Monetary Authority of Macao are allowed to accept deposits from the public and use the proceeds to make consumer or commercial loans. These institutions are classified as licensed banks, restricted licensed banks, and deposit taking companies. Macao has a strong and solid banking system which makes banks in Macao a very safe place to put our money. The rate of return, derived from interest payments, for bank demand deposit is normally the lowest among other investment assets, reflecting the low risk and highly liquid nature of this class of asset.

It should be noted that term or fixed deposits usually carry higher rates of return than demand deposit as a tradeoff for lower liquidity. Early uplift of term or fixed deposit is subject to heavy penalty.

(b) Negotiable Short-term Debt Instruments

These are short-term (typically maturing in less than 1 year), highly liquid, low-risk debt instruments issued by governments, banks and large non-financial corporations. They play an important role in the short-term investment and borrowing activities of most financial institutions.

Although most investors would hold such instrument to maturity, most of these instruments are negotiable which means that an investor may sell it to another investor in the secondary market if he/she needs the funds before maturity. Investors with substantial funds may invest in such moneymarket instruments directly, but most do so indirectly via money market accounts at various financial institutions.

Most money market instruments, except bank deposits, are sold on a discount basis, meaning that an investor pays a price lower than the face value of the instrument and gets repaid at the face value. For example, a 182 days (26-week) Hong Kong Exchange Fund Bill (EFB) with a face value of HKD500,000 selling at a yield of 3.75% p.a. will cost an investor HKD490,822.30 (being HKD500,000/(1 + 3.75% x 182/365)). So the investor who pays HKD490,822.30 for purchase of the EFB will receive back HKD500,000 after 182 days and earns a rate of return of 3.75% p.a.

Major money market instruments include:

- Government Bills;
- Short-term Certificates of Deposit; and
- Commercial Papers.

(i) Government Bills

These are short-term debts issued by the government to finance their expenses. Examples are US Treasury bills (US T-bills) and Hong Kong Exchange Fund bills (EFB). Investing in such bills is literally the same as lending to the government. As the risk of default by the government is extremely low or even regarded as default-risk free, such instruments command the lowest yield among similar instruments. Minimum denomination of US T-bills is USD10,000and that of EFB is HKD500,000. They are issued and traded on a discount basis with maturities of 4, 13, 26 and 52-week.

(ii) Short-term Certificates of Deposit (CDs)

These are negotiable short-term time deposit certificates issued by commercial banks evidencing a deposit of a fixed maturity of less than 1 year. Most CDs are issued in amounts of HKD500,000 or HKD1,000,000.

The yields on certificates of deposit are usually higher than government bills of similar maturity. This is because commercial banks are considered to have a higher possibility of default than the government. The less liquid secondary market and the tax implication are also negative for the investors.

(iii) Commercial Papers (CPs)

These are unsecured promissory notes issued by top-rated financial and non-financial companies with maturities of under one year. CP is a low-cost alternative to bank borrowing. The rates of return on commercial papers typically exceed other comparable term money market instruments rates, reflecting its lower liquidity and higher risk. However, these are still relatively low in comparison with the interest rates of other corporate fixed income securities, such as corporate bonds.

In the US, the dollar amount of commercial paper outstanding exceeds the amount of any other type of money market instruments except for Treasury Bills, with the majority being issued by financial companies such as bank holding companies as well as companies involved in sales and personal finance, insurance, and leasing.

(c) Advantages and Disadvantages of Money Market Instruments

This class of investment instruments is more suitable for short-term safe haven purpose pending longer-term move and have the following ***advantages***:

- low risk;
- provide a reserve for emergencies;
- accumulate funds for specific future purposes;
- principal will not change, sometimes insured; and
- high liquidity.

On the other hand, such instruments do have some ***disadvantages*** such as:

- low return (inflation risk);
- fluctuating yield (reinvestment-rate risk);
- default risk (for non-government issues); and
- large denomination.

2.3.2 Fixed Income Securities

Fixed income securities are a group of investment instruments that offer a fixed periodic return. This is typically a security document or certificate showing that the investor has lent money to the issuer, which is usually a company or a government, in return for fixed interest income and repayment of principal at maturity. Fixed income securities can be regarded as companies or government borrowing from the market and the returns are based on the credit worthiness of the respective borrower.

Fixed income securities generally stress current income although there is also opportunity for appreciation in value. If there is an active secondary market, they can be bought and sold at any time before maturity. However, if the secondary market is very inactive, the investor's money is tied up for the full life span of the security.

Fixed income securities fall into two general categories:

1. Debt obligations such as bonds; and
2. Preferred Shares.

(a) Bonds

Bonds are debt instruments issued by corporations, municipal governments, countries, and supra-nationals (such as the World Bank, the Asian Development Bank and the International Monetary Fund, etc) and are usually long-term in nature (above 1 year up to 30 years or more).

These are characterized by a promise by the issuer to pay the bondholder (investor) two types of cash flows. The first type of cash flow involves the payment of a fixed dollar amount periodically, until a specified date. The second involves the payment of a lump sum on this stated date. The periodic payments are known as ***coupon payments***, and the lump sumpayment is known as the bond's ***principal***.

(i) Bond Attributes

We are going to discuss the various features of fixed income securities.

(1) Issuers

There are different types of organizations issuing debt securities in the market which can be classified as supra-nationals, government, government agency, municipal government and private sector corporations.

a. Supra-nationals

These are multilateral organizations such as the International Bank for Reconstruction and Development (commonly known as the World Bank), the Asian Development Bank and the International Monetary Fund. Bonds issued by such organizations carry very high quality with minimal default risk.

b. Government Bonds

These are financial instruments used by the government to borrow money from the public. They are the safest type of investments, carrying almost no default or credit risk because interest payment and repayment of principalare guaranteed by the government. Because of its credit quality, government bond yields are usually the lowest among fixed income securities of similar maturityperiods. In the US, they are called Treasuries (US Treasury Notes and Treasury Bonds), and the debt securities issued by Hong Kong Special Administrative Region Government are known as Exchange Fund Bills, or Notes.

c. Government Agency Securities

These are used by corporations owned or sponsored by government such as the Hong Kong Mortgage Corporation, MTRC, KCRC and the Airport Authority to raise capital in the bond market.

d. Municipal Bonds

States or local governments of many large countries also issue bonds to finance their budget. Repayment of debts relies either on the taxing ability of the local government or revenue from some public projects. Municipal bonds carry a higher risk than the government bonds.

e. Corporate Bonds

Corporate bonds are medium or long-term debt obligations of private corporations. Such bonds may be secured by certain assets or unsecured. Bonds issued by corporations fall into many categories. Corporate issuers range from large well-known multi-nationals to smaller companies. The nature and risk of corporate bonds could be very different.

2) Par Value

The par value, also known as face value, maturity value or redemption value, is the amount the issuer agrees to repay the bondholder at maturity. Bonds can have different par values.

(3) Convertibility

However, for certain type of bonds, the investor may have a right to choose whether to receive the par value or something else, typically the common stock of the issuer or of some other company. This type of bonds is called ***convertible bonds***. These are corporate bonds issued with a right granted to the investors, enabling them to convert the bonds into a specified number of ordinary shares at a pre-determined price and specified date, on or before the date the bond matures. The conversion right is intended to make the issue more attractive to the investors, especially if the bond is unsecured.
Convertible bonds generally pay a fixed rate of interest, which is less than the interest on a non-convertible bond because of the value of the convertible feature.

(4) Coupon Rate

This is the interest rate the issuer promises to pay the investor. Coupon payments are calculated by

Par value x coupon rate x fraction of a year

e.g. a bond with a coupon rate of 8% p.a., a par value of HKD10,000 and paying interest semi-annually will pay the bondholder HKD400 coupon payment every 6 months. The coupon payment is calculated by

HKD10,000 x 0.08 x ½ = HKD400

Coupon rate can either be fixed for the whole life of the bond or floating, i.e. the coupon rate is reset periodically based on certain reference rate. Most bonds are fixed-coupon bondswith the coupon rate fixed at the issuance and the bondholderswill receive coupon payments determined by this rate no matter how the interest rates change after the bond is issued.

5) Term to Maturity

Most bonds have a fixed maturity when the issuer will repay the money to the bondholder. Some investors view bonds with a maturity between 1 and 5 years as short-term, 5 and 12 years as intermediate or medium-term and over 12 years as long-term. Bonds issued in Hong Kong rarely have original maturity longer than 10 years while in the US, the maturity for long-term bonds is typically 30 years.

6) Price and Yield Relationship

When a fixed-coupon bond is issued, the coupon rate is normally set according to the prevailing market condition and the creditworthiness of the issuer at the time of the issuance. Once a bond is issued, it may change hands in the secondary market. As time passes, the overall level of interest rates and the creditworthiness of the issuer may change reflecting the macroeconomic condition and the performance of the issuer. New buyer of the bond may require a yield that is comparable to similar instruments in the market (market yield) which is different from the coupon rate of the bond. A bond with a coupon rate that is higher than the market yield looks attractive to the new buyer if it is sold at a price equal to the par value of the bond. However, the holder of the bond would surely not be willing to sell the bond at its par value. To make a transaction possible, the bond should be sold at a price higher than the par value, we say the bond sells at a ***premium***. For example, a HKD10,000 par value 5-year bond issued by ABC Corporation bears a coupon rate of 10%, an investor willing to lend 5-year money to the company for a yield of 8% would be willing to pay a price higher than HKD10,000 for the bond.

Conversely, if the market yield is higher than the fixed coupon rate, the bond will only be sold at a price lower than the par value, we say the bond sells at a ***discount***. In the previous example, an investor who demands a 12% yield for buying ABC Corporation's bond would not pay HKD10,000 to buy it. In order to sell the bond, the seller has to offer it at aprice lower than HKD10,000.

Only when the coupon rate equals to the yield required by the market, the bond will be sold at the same price as the par value, we say the bond sells ***at par***.

Market Yield = Coupon Rate	**==>**	**Bond sells at Par**
Market Yield > Coupon Rate	**==>**	**Bond sells at Discount**
Market Yield < Coupon Rate	**==>**	**Bond sells at Premium**

From the above discussion, we can further stipulate that there is an inverse relationship between market yield and the price of a bond. When interest rate (market yield) goes up, bond price will come down and vice versa. This relationship isreferred to as the ***Law of Fixed Income*** by some market players. That is why the best time to invest in bonds is when interest rates has topped and is bound to come down.

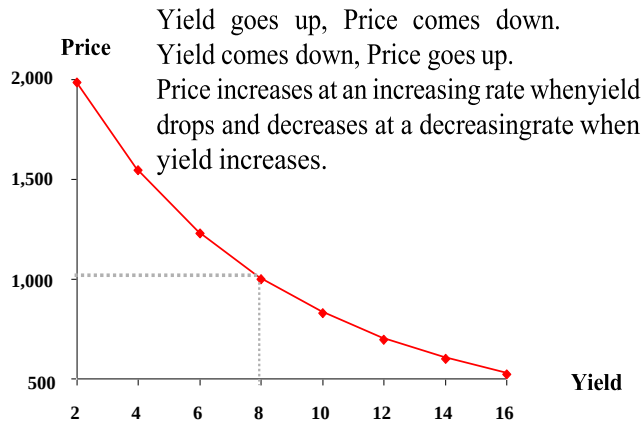
The following table shows the prices of a 20-year bond under different market yield levels. The relationship is also plotted in a graph.

Price-yield Relationship

- We have here a 20-year, 8% coupon bond ($1,000 par value), what is the price of the bond under different yield levels?

	Yield		Price	% Price
Yield	Change	Price	Change	Change
2	-6	$1,985.09	437.97	28.31%
4	-4	1,547.12	315.93	25.66%
6	-2	1,231.19	231.19	23.12%
8	0	1,000.00	0	0
10	2	828.36	-171.64	-17.16%
12	4	699.05	-129.31	-15.61%
14	6	600.07	-98.98	-14.16%
16	8	522.98	-77.09	-12.85%

Price-yield Relationship



Yield goes up, Price comes down.
Yield comes down, Price goes up.
Price increases at an increasing rate whenyield drops and decreases at a decreasingrate when yield increases.

Apart from the inverse relationship between market yield and bond price, we can also observe some interesting relationship from them.

1. The magnitude of change in the bond price for a 2% increase in market yield (from 8% to 10%) is not the same as that for a 2% decrease in yield rate (from 8% to 6%). A decrease in market yield will raise the bond's price by an amount that is greater than the correspondingfall in the bond's price for an equal sized increase in the market yield.

2. This is a convex curve, meaning that when market yield drops, the bond price will increase at an increasing rate and when market yield increases, the bond price will decrease at a decreasing rate.

(7) Marketability

This refers to how easily the investor can sell the bonds without having to make a substantial price concession, inother words, the liquidity. Because most bonds are bought andsold in dealer markets, bonds that are actively traded will tendto have lower bid and offer spreads than those that are inactive. Accordingly, bonds that are actively traded should have a relatively lower yield to maturity and a higher intrinsic value than bonds that are inactive.

(8) Bond Ratings

These are alphabetical designations attesting to the investment quality of bonds issued by corporations (rating agencies) which specialize in providing ratings of the creditworthiness of corporations and bond issuers. Such ratings are often interpreted as an indication of the likelihood of default by the issuer. This is a prerequisite for many US debt issuers and may directly affect the issuing price. Debt issuers will have to submit their financial data to the rating agencies in order to get a rating. The two most widely accepted rating agencies are Standard and Poor's Corporation (S&P) and Moody's Investors Service, Inc (Moody's).

A broader set of categories is often employed, with bonds classified as being of either investment grade or speculative grade. In general, investment grade bonds are bonds that have been assigned to one of the top four ratings (AAA through BBB by S&P; Aaa through Baa by Moody's). In contrast, speculative grade bonds are bonds that have been assigned to one of the lower ratings (BB, Ba or below). Sometimesthese low-rated securities are refered as high yield bonds or junk bonds.

Bond Ratings

Moody's	S&P	Description
		Investment Grade
Aaa	AAA	Maximum safety
Aa	AA	High-grade, high-credit quality
A	A	Upper-medium grade
Baa	BBB	Lower-medium grade
		Speculative Grade
Ba	BB	Low grade, speculative
B	B	Highly speculative
Caa	CCC	Substantial risk, in poor standard
Ca	CC	May be indefault, very speculative
C	C	Extremely speculative
	CI	Income Bonds that pay no interest
	D	Default

(ii) Domestic, Foreign and Eurobonds

Bonds may be classified according to the market where the bond was issued. There are different legal and regulatory issues guiding the issuance of such bonds which may have different implications for the issuers and investors.

Domestic bonds are bonds issued in the domestic currency by corporations domiciled in the same country. Foreign bonds are bonds issued in the currency of the country by foreign corporations. There are many interesting names to denote such issues. Yankee bonds are USD bonds issued in the US market by foreign corporations. Samurai bonds are Japanese Yen bonds issued in Japan by corporations domiciled outside Japan. Formal application and approval from regulatory bodies are needed for the issuance of these bonds.

Eurobonds are bonds issued in the currency of one country but sold in other national markets. For example, a bond issued by a US corporation that is denominated in USD (or any currency other than Euro) and sold in Europe would be referred as a Eurobond. The major advantage of investing in the Eurobond market is that it is neither regulated nor taxed.

(iii) Advantages of Bond Investment

This is more suitable for longer-term investment and carriesadvantages such as:

- low to moderate risk;
- liquidity, ready market available;
- higher return than money market instruments;
- capital preservation;
- regular and determinable income; and
- hedging through derivative products available.

(iv) Disadvantages of Bonds

- high denominations -- may not be affordable for average investors;
- price risk -- fluctuation in interest rates;
- inflation risk -- fixed interest rate;
- liquidity -- some bonds may not have a ready secondary market;
- no participation in company profits;
- no right of voting;
- possibility of default by issuer; and
- sophisticated trading techniques may be involved.

b) Preferred Shares (Preference Shares)

Preferred shares, representing an ownership interest in a corporation, give the investor a right to a fixed dividend provided enough profit has been made to cover it. Unlike investors who own a corporation's common shares,preferred shareholders have no voting right but are entitled to be paid the dividends due to them first, before ordinary shareholders can be paid their dividends.

Preferred shareholders also have priority claims on company assets in case of company liquidation. One point to note is that preferred shares are not very common in Hong Kong.

The benefits of investing in preferred shares are similar to those of bonds. Preferred share dividends are usually paid at a fixed rate. However, they differ from bonds in that although the income is fixed, they are not interests and may not be paid if a company does not make profits. They also differ from ordinary shares in that dividend will not be more than the fixed rate even if exceptionally high profits are made. As preferred shareholders are not entitled to the full earning potential of the company, the price of the share will typically have only limited opportunity for capital appreciation.

2.3.3 Equities

Ordinary share, or common stock, represents equity, or an ownership interest in a corporation. This is perhaps the widest known type of financial instruments. It is a residual claim, meaning that creditors and preferred shareholders must be paid as scheduled before ordinary shareholders can receive any payment. It allows the investors the opportunity to participate (share) in the long-term growth of a public company. In the liquidation of a corporation, ordinary shareholders are in principle only entitled to any value remaining after all other claimants have been satisfied.

The greatest advantage of the corporate form of organization is the limited liability of its shareholders. In Macao, ordinary shares are generally fully paid and non-accessible, meaning that ordinary shareholders may lose their initial investment but not more. That is, if the corporation fails to meet its obligations, theshareholders cannot be forced to give the corporation the funds that are needed to pay off the obligations. However, as a result of such a failure, it is possible that the value of a

corporation's shares will be negligible; i.e. the investor will suffer a totalloss of his original investment.

Transactions made in listed securities in Hong Kong are cleared through the Central Clearing And Settlement System (CCASS), which is a computerized book entry clearing and settlement system. Transactions are electronically recorded on brokers' (or investors') stock account balances in CCASS, without the need for thephysical movement of share certificates.

On purchasing stock, the investor can ask to receive the physical scrip to give evidence of his/her ownership. This can be registered in his/her own name with the share registrar. If the certificates are lost, getting replacement certificates is both a time consuming and costly process. Alternatively, the investor can entrust the shares to his/her bank or broker for safe custody; and the latter will usually deposit the shares in CCASS. Note however that with this method of safekeeping, CCASS only recognizes the bank or broker as the direct holder of the securities.

The investor can also open an investor account in CCASS for custody of his/her stocks, though trading of shares still requires to be made through a bank or a broker. In this way, the investor will have direct control over his/her share holdings.

As with other types of investments, the total return is important. Shareholders have two ways of gaining: by selling the shares at a higher price than that at which they were purchased, and from dividends paid by the company. However, shareholders may suffer capital loss due to a fall in share price. Also, second line or smaller stocks may be illiquid; i.e. difficult to sell.

A successful company will probably pay an increasing dividend on its shares each year. The price of its shares is also likely to rise, so the return will be both income and capital. If a company is unsuccessful, the value of its shares is likely to decline. Share prices on stock markets can change rapidly. In general, equities are considered riskier than money market instruments and bonds.

Earnings, not dividends, are the source of a corporation's value. Some of the commonly used terms in the analysis of stock value are outlined as follows:

1. **Price Earning Ratio (or PE Ratio):** A corporation's current stock price divided by its past 12-month earnings per share.
2. **Return on Equity:** The earnings of a corporation divided by its book value.
3. **Dividend Yield:** The current annualized dividend paid on a share, expressed as a percentage of the current market price of the corporation's common stock.
4. **Payment Ratio (or Payout Ratio):** The percentage of a corporation's earnings paid to shareholders in the form of cash dividends.
5. **Retention Ratio:** The percentage of a corporation's earnings that are not paid to shareholders but instead are retained for future expansion.

(a) Dividends

Payments made in cash to shareholders are termed dividends. As Macao does not have a stock market, there are no statistics about how often such dividends are declared. In Hong Kong, these are typically declared semi-annually by the board of directors and are paid to the current shareholders

on record at a date specified by the board known as the dividend date.

Corporate management may use dividend changes as a signaling device, raising or lowering dividends on the basis of its assessment of the corporation's future earnings. Prices vary according to investors' perceptions of each company's performance and prospects.

Compiling a list of shareholders to receive the dividend is not as simple as it may seem, because for many corporations the list changes almost constantly as shares are bought and sold. Those shareholders who are to receive the dividend are identified by the use of an ex-dividend date.

Because of the time required to record the transfer of ownership of common stock, the Hong Kong Exchange specifies an ex-dividend date that is two business days prior to the date of record. Investors purchasing shares before the ex-dividend date are entitled to receive the dividend in question; those purchasing on or after the ex-dividend date are not entitled to the dividend.

(b) Advantages of Equities

- dividend income;
- capital appreciation;
- part ownership of the company;
- limited liability;
- liquidity;
- higher return than bonds; and
- a good hedge against inflation.

(c) Disadvantages of Equities

- subject to fluctuations in company earnings;
- high short term price volatility;
- market risk;
- company risk; and
- economic risk.

2.3.4 Real Estate

Real estate investment can be carried out in different forms. The most common type is ***rental property*** where investors acquire apartments, houses, shops or office premises with down payments and use rental incomes to pay off the mortgage and other expenses. Simultaneously, rental property provides both a cash flow and an opportunity to capital appreciation of property market value.

Another form of real estate investment involves the purchase of apartments, houses, shops, office premises or even raw land with an intention to sell them later for a profit. Such investment could be financed by mortgage as well.

(a) ***Advantages of Real Estate Investment***

- capital appreciation;
- inflation hedge;
- leverage through bank mortgages available; and
- pride of ownership.

(b) ***Disadvantages of Real Estate Investment***

However, as a means of investment, it has the following disadvantages:

- high volatility/risk;
- high transactions costs;
- illiquid market;
- management problems;
- high denomination; and
- low rental yield.

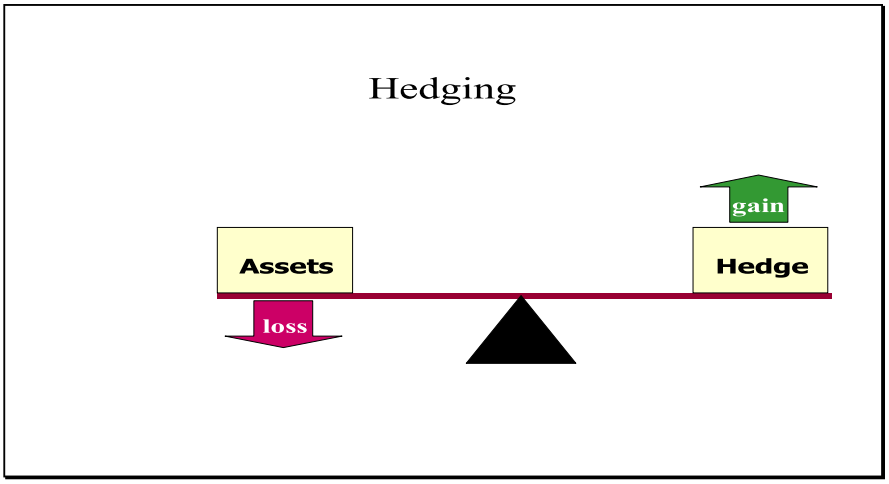
2.3.5 Financial Derivatives

A financial derivative is a financial instrument whose value depends on or is ***derived*** from an underlying financial asset such as stock, bond, interest rate,foreign currency or stock market index. There are two categories of financial derivatives, namely, option and forward contract. Being more speculative in nature and complex in structure than other types of investment, financial derivatives are only suitable for sophisticated or professional investors.

(a) Uses of Financial Derivatives

Financial derivatives can be used for different purposes: risk management, speculation or arbitrage:

(i) ***Risk management***: Derivatives are being used for hedging extensively. The purpose of hedging is to eliminate the impact of change in market price on the value of an asset or investment portfolio. For instance, a fund manager holding a portfolio of stocksis expecting a short-term downward correction in the market. In orderto protect the portfolio value, the manager may sell short stock index futures contracts so that when the stock market drops, the gain from the short stock index futures contracts will "offset" the loss in value of the portfolio. In case the stock market continues to go up, the futures hedge will incur a loss that would be offset by the appreciation of the portfolio. Thus hedging with futures contracts will eliminate the downside risk but at the same time forfeit the upside potential.



(ii) ***Speculation***: Speculators buy and sell derivatives for the sole purpose of making a profit by closing out their positions at a pricethat is better than the initial price. For instance, a trader who believes the Hang Seng Index (HSI) will go down may sell short HSI futures contracts. Should the HSI go down as expected, he/she can buy back his/her futures contracts at a lower level and make a profit. On the other hand, if his/her view is proved wrong and the HSI goes up, a loss will result. Speculators are often blamed for creating excessive volatility in the market. This may be an unfair accusation in viewof their contribution to the liquidity of the market.

(iii) ***Arbitrage***: An arbitrage is a simultaneous purchase and sale of same or similar assets in different markets in order to capture a risk-free profit caused by mis-pricing. As the value of a financial derivative is derived from an underlying asset, there exists a relationship between the price of the underlying asset and that of the derivative. However, as the two markets are driven by different demand and supply, such relationship breaks down occasionally. This provides an opportunity for arbitrageur to make a profit by buying the under-priced (e.g. the stocks) and selling the over-priced (e.g. the index) simultaneously. For instance, if the HSI futures contract trades at a premium of, say 300 points above the current HSI, investment managers may enter the market to sell short HSI futures contracts and buy back the underlying stocks in the cash market. On the settlement date of the HSI futures contracts, the two markets will converge and a risk-free profit is generated.

There are a wide variety of financial derivative products and their structure can be highly complex. Here we will focus only on the more basic types of derivatives. There are two major types of financial derivatives:

1. Forward and Futures Contracts; and
2. Options and Warrants.

(b) Forward and Futures Contracts

A forward contract is an agreement between two parties (buyer and seller) to set a price today for an asset/goods that will be delivered on a specified future date. The assets or goods being traded include stocks, bonds, interest rates, foreign currencies, commodities, stock indexes etc.

A futures contract is typically a standardized forward contract that is traded in an organized market called futures exchange. Futures contracts are traded on a large number of underlying assets such as agricultural and metallurgical products, interest earning assets, foreign currencies and stock indexes. Futures contracts are settled either through offsetting deals, physical delivery or cash settlement.

A stock index futures contract is based on a particular stock market index, e.g. Dow Jones Industrial Average (DJIA), Standard and Poor's (S&P) 500, Hang Seng Index (HSI), which is constructed to measure the overall price movement of a stock market.

The trading of stock index futures involves standardized contracts to buy or sell a hypothetical portfolio of all stocks included in the index at some specified future date at a price agreed at the time of the deal.

For futures contract of deliverable underlying goods, the buyer agrees to take delivery and to make payment at expiry date, and the seller agrees to make delivery at the same time. But for stock index futures contract, the settlement is made in cash without the actual delivery of the securities covered by the index. The profit or loss derived from trading stock index futures is determined by the difference between the price of the original contract and the final settlement price. For example, an investor bought oneHSI futures contract at 10,000 and the final settlement price of the contract is 10,800, then the investor will make (10,800 – 10,000) x HKD50 = HKD40,000 (each point of the HSI futures contract is worth HKD50).

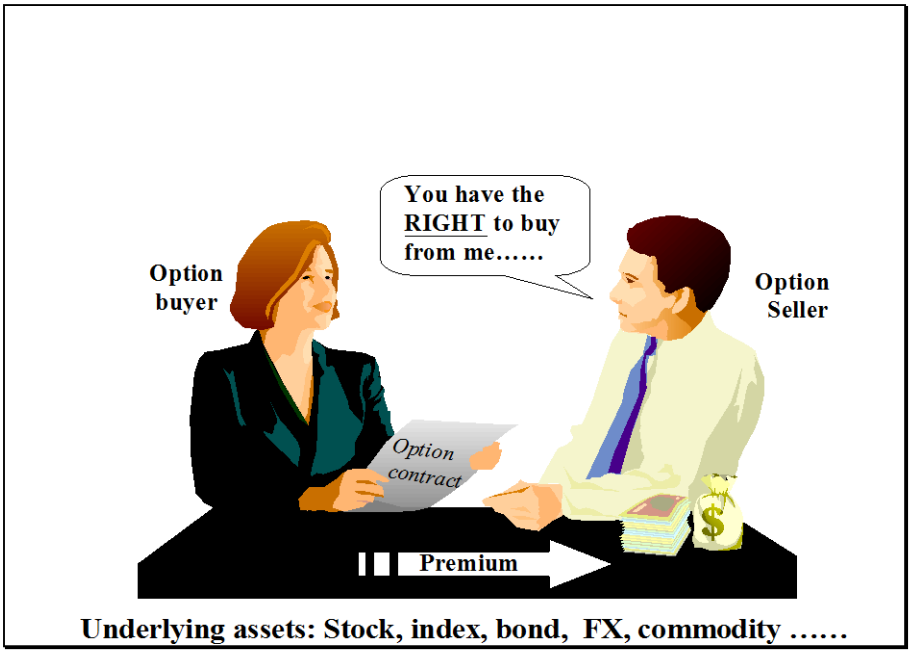
In Hong Kong, HSI futures contracts are traded at the Hong Kong Futures Exchange Limited. The value of an HSI futures contract equals the index value multiplied by HKD50. If, for example, a HSI futures contract is trading at 9,800, then its underlying contract value will be HKD490,000 (HKD50 x 9,800).

Buyers and sellers of contracts are exposed to the overall movement of the stock market, as measured by the market index. Whereas an investor in the underlying stocks needs to pay in full for the purchases within two business days of trading, the buyer or seller of a futures contract pays onlya margin which is a certain percent of the contract value. The margin requirements are different in different markets and for different types of investment products and may be subject to the prevalent market condition (at the time of writing, the initial margin requirement for one HSI futures contract is HKD38,250, equals to about 8% of the contract value). Thus,the investor gains exposure to the index using only a fraction of the capital that would be needed to gain the same exposure to the underlying stocks. Itmust be pointed out that the leverage effect of futures contract may backfire. With the stock market dropping 8%, all the capital invested (by the buyer of the futures contract) in the futures contract will be wiped away.

(c) Options and Warrants

An option contract gives the holder the ***right***, but not the obligation, to buy or sell a specified amount of an underlying asset at an agreed price within or at a specified time.

In order to get this right, the ***buyer*** (also referred to as ***holder***) pays the ***seller*** (also referred to as ***writer***) an agreed fee, which is known as the ***premium***.



To ***exercise an option*** means the holder puts this right into effect and the two parties enter into the specified transaction in the option contract. If the holder chooses to exercise the option, the writer has the obligation to complete the specified deal.

Options on different ***underlying assets*** are being traded. Such underlying assets include stocks (stock options or warrants), stock indexes, bonds (callable and putable bonds), foreign exchanges (currency options), interest rates, commodities etc.

A ***call*** option gives the holder the right, but not the obligation, to buy the underlying asset while a *put* option gives the holder the right, but not the obligation, to sell the underlying asset.

The pre-agreed price for a call holder to buy the underlying asset or a put holder to sell the underlying asset is called the ***strike or exercise price***. The strike price is fixed when the option contract is being negotiated.

There is a time limit for an option contract. The date (last day) the right has to be exercised is called the ***expiration date, expiry date or maturity date***. There are two types of option styles, namely, European and American options. A ***European option*** can only be exercised on the expiration date while an ***American option*** may be exercised on or before the expiration date.

By paying $2,800 premium to XYZ, ABC has the right to buy from XYZ 400 shares of HSBC stock at a price of $100 per share on or before 23 Nov x1

Options can be traded over-the-counter or through organized exchanges. Option trading is facilitated by standardized contracts traded on organized exchanges. These exchanges employ the services of a clearing corporation, which maintains records of all trades and acts as a buyer from all option writers and a writer to all option buyers.

Option writers are required to deposit margin to ensure performance of their obligations. The amount and form of the margin will depend on the particular option contract involved.

A warrant works in the same way as a stock option. In Hong Kong, most warrants are call warrants although there are a few put warrants. There are two types of warrants, namely equity warrants and derivative warrants. Equity warrants are issued by the company issuing the underlying stock, whereas derivative warrants are issued by a third party, typically an investment house or a financial institution.

A special feature of options and warrants is that the payoff of such contracts is asymmetrical. Suppose you are bullish on Cheung Kong Holdings (CKH) and choose to buy a call option on 1,000 shares of CKHat a strike price of HKD50 for a premium of HKD3,000 and hold theoption contract to maturity. At the expiry date of the option, if CKH's share price stays below HKD50, the option will not be worth exercising and you lose what you have paid, the premium of HKD3,000. No matter how low CKH share price goes, your maximum loss is HKD3,000. However, if CKH share price goes up to say, HKD62, you will make (HKD62 – HKD50) x 1,000 = HKD12,000 from the option and afterdeducting the HKD3,000 premium expense, your net profit is HKD9,000. In this case, the higher CKH share price goes, the more profit you will make.

Therefore, the maximum loss of an option buyer is limited to the premium paid but the gain, in theory, is unlimited. However, the payoff for option writer is exactly the reverse where the gain is limited (to the premium received) but the loss could be unlimited.

(d) Advantages of Derivatives

- provide effective hedge for unwanted risks;
- efficient means for speculative purpose;
- loss limited to premium paid only (for buyer of options);
- highly leveraged;
- potential high return;
- liquidity (for exchange traded derivatives); and
- low transaction cost.

(e) Disadvantages of Derivatives

- extremely high risk;
- unlimited loss (for writer of options and trader of futures);
- substantial front end premium outlay (for buyer of options);
- total loss in value (premium paid) after maturity date; and
- no right of ownership or dividend income to underlying securities.

These financial instruments are not for everyone as they can be complex and have unique risk features. Prior to trading in derivatives, the investors should make certain that they fully understand the nature of, and the risks associated with, these products.

2.3.6 Low Liquidity Investments

We will finish this part by a brief discussion on another class of investment assets that is viewed more as hobbies than investment even though some of these assets did experience substantial returns in the past. They include ***antiques, art, coins and stamps, diamonds*** and other ***collectible items***.

Apart from possible financial return from such investments, investor may also gain satisfaction and enjoyment from the ownership of such items. However, the market for such investments is always illiquid and transaction costs could be very high. Many of these assets are sold at auctions and prices may thus vary substantially. Also, special knowledge and expertise are required.

2.3.7 Investment Funds

In the following sections, terms such as investment funds, mutual funds, or unit trusts are regarded as collective investment schemes.

Since investment-linked insurance policies are mostly offered with their value directly linked to the performance of an investment fund, the insurance intermediary/licensed person selling these products should possess thorough knowledge on the features, benefits, and operations of investment funds.

Investment funds are a form of collective investment schemes through which a number of investors having similar investment objectives combine their money into a large central pool. The investment company then channels the funds from this pool into a diversified portfolio of financial instruments such as stocks and bonds. In return, the investors receive certain rights regarding the financial assets that the investment company has bought and any earnings that the company may generate.

There are a wide variety of funds created to suit different needs of investors. Investment funds can be classified according to the asset class they invest in such as stock funds, bond funds, money market funds, venture capital funds etc. They can also be termed as aggressive growth funds, growth funds, income funds, balanced funds etc according to their investment objectives. Some funds are set up for investment in specific industry (e.g. technology funds), or geographic areas such as global funds, American funds, European funds, Far East funds, China funds, Hong Kong funds etc.

Some of the relevant issues in relation to the investment funds will be discussed in the following sections.

(a) Mutual Fund and Unit Trust

Investment funds differ in many ways and thus classification is difficult. Different names are often used depending on the jurisdiction. Investment funds are commonly known as mutual fund or unit trust.

(b) Mutual Fund

This is the simplest and most common situation. An investment company is set up with the objective of investing in shares of other companies and has only one type of investors, i.e. the stockholders for whom it makes the investment. These stockholders own the investment company directly and thus own indirectly the financial assets that the company itself owns.

A mutual fund company has a board of directors that is elected by its stockholders. In turn, the board will commonly hire professional money manager, the management company, to manage the company's assets. These management companies may be authorized financial institutions, registered companies, or insurance companies. Often the management company is the business entity that started and promoted the mutual fund.A management company may have contracts to manage a number of mutual funds, each of which is a separate organization with its own board of directors.

(c) Unit Trust

Trust is an old concept under English Common Law. This concept is recognized in common law countries such as the UK, Australia, Canada and Singapore. It is also adopted in Hong Kong. However, in civil law jurisdictions such as Taiwan, Japan, France or Luxembourg, it is not recognized, instead mutual funds are adopted.

A unit trust is an investment vehicle set up under a trust. To form a unit trust, the investment company purchases a specific set of securities and deposits them with a trustee. The investors who share similar investment objectives then pool their money together for the investment into such types of assets.

A number of units known as redeemable trust certificates are sold to the public. These certificates provide their owners with proportional interests in the securities that were previously deposited with the trustee. All income received by the trustee on these securities is subsequently paid out to the certificate holders, as are any repayments of principal.

An investor who purchases units of a unit trust is not required to hold them for the entire life of the trust. Instead the units usually can be sold back to the trust, at a price calculated on the basis of bid prices for the underlying assets in the portfolio, i.e. the market value of the securities in the portfolio.This is otherwise known as the Net Asset Value (NAV) per unit.

The NAV is derived using the following formula:

NAV = (total assets – total liabilities)/number of units outstanding.

Having determined the per unit price, the trustee may sell one or some of the securities to raise the required cash for the repurchase.

(d) Open-end and Closed-end Funds

Investment funds sell shares to investors and use the proceeds to purchase assets and securities according to the investment objective of the fund. However, funds differ in the way they operate after the fund has been launched and can be classified as open-end or closed-end.

(i) Open-end Funds

An open-end fund has a variable capitalization. It stands ready to purchase existing shares at a price based on or near the NAV of the underlying investments. On the other hand, it may continuously offer new shares to investors, again at a price based on the NAV. The open-ended nature means that the fund gets bigger and more shares are created as more people invest in it. The fund shrinks and shares are cancelled as people withdraw their investment. The price of the shares is based on the value of the investments the company has invested in.

(ii) Closed-end Funds

A closed-end fund is an investment company whose line of business is investing in other financial assets or companies. It issues a set number of shares initially to capitalize the fund, i.e. the fund size is fixed. After the initial launch, new shares are rarely issued or repurchased and the number of shares does not change regardless of the number of investors.

An investor who wants to buy or sell shares in the closed-end fund has to do it through the secondary market. These funds are commonly traded on organized exchanges such as the New York Stock Exchange, the American Stock Exchange or the Hong Kong Stock Exchange.

Although the price of the share of a closed-end fund reflects the value of the investments in the fund, it does not equal to the NAV of the fund as in the case of open-end funds. If there are more peoplewanting to sell their shares than people wanting to buy, the shareprice tends to fall and may be lower than the NAV. If there are more buyers than sellers, the share price tends to rise and may be higher than the NAV. Studies in the US indicated that closed-end funds (in the US) usually traded at a discount to the NAV between 5 to 20%.

Closed-end funds are generally established to invest in markets where the assets are less liquid, e.g. the stock markets of emerging economies or property. This is due to the closed-ended nature of thefund which protects the underlying assets from having to be sold (at unreasonable price) to meet the redemption requirement of the investors during extreme market condition.

(e) Charges and Fees of Investment Funds

There are, at a minimum, usually two types of fees incurred in investment in funds. The first type is a sales fee or load of a fund for the operation and distribution costs of the fund and the second type is the annual management fee paid to the fund management company for their services.

(i) No Load

With direct marketing, the fund house sells the units/shares directly to the investors without the use of a sales organization. This type of investment fund is known as a no load fund and imposes no initial sales fee. The units/shares are sold to the investors at a price equal to their NAV. However, some fund houses may charge a redemption feeor exit penalty if the shares/ units are sold back to them within a certain time limit. Other fund houses may charge an on-going distribution fee on an annual basis.

(ii) Sales Fee/Load

When investment funds are sold through the use of a sales force, the fund house has to pay a commission based on the units/shares sold. This is known as a load charge and the common load types are described as follows:

- Front-end load;
- Back-end load; and
- Level load.

(1) Front-end Load

A front-end fee is charged to the investors when the shares/units are purchased from the fund house. The fee is paid up-front and just once, as a percentage of the initialpurchase price. This type of funds is commonly known as class A unit/share and is an attractive choice for long-term investors.

(2) Back-end Load

Back-end load will only be paid by the investors when the units/shares are sold back to, rather than when they are purchased from, the fund house. That is, when the investors sell their units/shares back to the fund house, a deferred contingent sales charge or redemption charge may be applicable. The deferred contingent sales charge is typically calculated as a percentage of net asset value and applies forthe first few years that the investors own the units/shares. The fee decreases over time in steps until it disappears. The redemption charge may be a fixed percentage of the net asset value, or based on the time period for which the investors have held their units/shares. In addition, a ***distribution fee*** of up to 1% is usually applicable annually. This type of funds is commonly known as class B unit/share and is more attractive for investors who intend to hold the units/shares for a mediumterm of at least 5 years. Some class B units/shares may be set up so that they convert to class A units/shares after a number of years and the annual distribution fee will be avoided thereafter.

(3) Level Load

A level load fund requires the investors to pay a small front-end charge when the units/shares are purchased from thefund house, and possibly a small back-end charge if they are sold back to the fund house in less than a year. However, a distribution fee is again applicable to cover the selling expenses. This type of funds is commonly known as class C unit/share and is more attractive for the short-term investors. However, it should be noted that level load is not too common in Hong Kong.

(4) Management Fees

In addition to sales charges, the management company will charge annual management fees for the investment and advisory services provided by the professional fund manager. The management fee is set at a certain percentage, usually ranges from 0.5% to 1% per annum, of the average market value of the fund.

(iii) Other Fees

Other fees which may be charged by the investment company include (but not limited to):

(1) administration fee which covers record keeping and services to investors;
(2) guarantee fee (mainly for guaranteed funds);
(3) trustee fee; and
(4) custodian fee.

(f) Benefits of Investment Funds

The benefits of investment funds have been well summed up by one of the many quotations: “they offer people with limited time, or limited investment skills or modest means, access to investment returns available only to more sophisticated investors who are able to buy their own professional advice. They generally entail less risk than direct holdings of securities, and offer economies of scale.”

Some of the major benefits are summarized as follows.

(i) Diversification

Investment funds provide an assortment of investment options. They offer growth, income, or a mixture of both, and the opportunity to invest in international markets, as well as in the local market. Investment managers typically establish a portfolio of as many as 50 to 200 or more different securities.

In effect, they are putting the investors’ money in many baskets instead of just one. Traditionally, only large institutions and “high net worth” individual investors can attain the diversification on their own.This is now made available to mass investors through investment funds.

(ii) Professional management

With investment funds, the investors have built-in professional, expert and full time investment managers who base their buying and selling decisions on extensive and ongoing economic research. After analyzing macro-economic condition, stock market conditions, interest rates, inflation and the financial performances of individual companies, they select investments that best match the fund’s objectives. Again, only large institutions and high net worthindividual investors used to enjoy the service of professional money management but investment funds have made this type of financial expertise accessible to the mass market.

(iii) Growth potential

Investment funds create possibility of higher long-term returns than conventional savings. As a matter of fact, one reason for the phenomenal growth of investment funds is their performance record in relation to what individual investors might expect by investing on their own. Of course, performance varies from fund to fund, but on average and over the long run, the growth of equity funds has paralleled the growth in the US economy. In addition, bond andmoney market funds have also reflected the long-term movements in their respective markets.

(iv) Convenience

Investment funds are easy to buy. An investor can purchase most types of funds through a professional licensed representative of an investment company. The licensed representative can help to analyze the investor's financial needs and objectives and recommend the appropriate funds. Nowadays, most of the commercial banks in Macao sell investment funds on behalf of investment companies.

The investor also has easy access to their money, making their investment a liquid asset. He/she can redeem all or part of his/her investment on any business day and receive the current value of the investment, which of course may be more or less than the original cost. Payment for redeemed investment will generally be made withina few business days.

(v) Access to global markets

Some markets may not allow access by foreign investors. However, international investment companies may be able to establish a local company and thus invest into the market. This provides additional opportunity to the investors who may otherwise not be able to take advantage of the investment opportunity.

(vi) Flexibility

Investment funds offer various features that allow the investors to stay in control of their investment. Investors can choose the type of investment that most fits their own investment objectives and risk tolerance.

(vii) Liquidity

Most of the investment funds are readily marketable at a price equal to the net asset value (NAV). The investors can therefore realize their investment easily without having to make a substantial price concession.

(viii) Affordability

For those investors with moderate financial resources who wish to invest in the stock market, they could only purchase stocks in odd lots, which result in high brokerage commission. Moreover, theywould have to sacrifice the benefits of diversification. Economies of scale in investment funds make such investment possible to the mass market.

Furthermore, investment funds are available in small units that make them affordable even to the mass market. The investors can get an investment program started for HKD10,000 (or lower). Subsequent and regular monthly investments can be made for as little as HKD1,000.

(ix) Cost efficiency

Investors sometimes have the feeling that investing in investment funds are expensive given that they are charged an upfront (front-end load) commission of up to 5%. However, with this amount of money they are hiring the professional service of some world class experts in their particular field to make the investment decision for them. Furthermore, the investment companies often employ state of the art computer equipments that can never be afforded by any individual investors.

Moreover, dealing and administrative costs would be greatly reduced by pooling the investors' funds together to take advantage of buying in bulk.

(x) Administration

Investors do not have to perform any administrative work associated with managing their own portfolios, such as handling payments connected with share trading, registering shares, arranging for custodian, collecting dividends and applying for rights issues.

(xi) Protection

The assets of the investment funds are typically protected by the trustees, or custodians, who have the responsibility to act in the interests of the investors, owning the investments on their behalf. It is also the trustee's role to ensure the investment is made according to its investment objectives while the custodian will be responsible for the safekeeping of the assets.

Investment fund business is highly regulated. In Macao, the investment-linked product embedded with investment funds must be authorised by the Monetary Authority of Macao before being marketed to the public. Although the Monetary Authority of Macao's authorisation is not a guarantee of an investment product, it has made specific requirements necessary before authorisation is granted.

(xii) Up to date investment position

Most investment funds publish the bid and offer price, and their NAV if applicable, daily on newspapers. With the advance in technology, some of them even make their information available through the internet.

(xiii) Automatic reinvestment of gains

Most investment funds allow the investors to automatically reinvest their dividends and capital gains to purchase additional fund units/shares at no extra cost. Over time, the power of compounding may significantly increase the value of the investors' assets.

(xiv) Exchange privilege (into other funds)

Within a fund family, the investors can generally exchange all, or any portions, of their investments into other funds with differentobjectives as their financial situations, and thus investment strategies,change.

(g) Disadvantages of Investment Funds

(i) Management fees

The professional investment managers running the investment fund on behalf of the investors will inevitably take a fee directly from the investment fund. This is a cost the investors could avoid if they manage their own investment.

(ii) Lack of choice

Although the investors can choose the type of fund they intend to invest in, they have no control over the choice of individual share, or bond which goes into the fund.

(iii) Lack of owner's rights

If the investors hold a company's shares direct, they have the right to attend the company's annual general meeting and vote on important matters. Investors in an investment fund have none of the rights connected with the individual investment in the fund.

(h) Roles of the Various Parties of an Investment Fund

(i) Role of Management Company

The general obligations of the management company is that it must:

(1) manage the fund in accordance with the constitutive documents in the interest of the holders and to fulfill the duties imposed on it by the general law;

(2) maintain the books and records of the fund and prepare the fund's accounts and reports. At least two reports must be published each financial year; and

(3) ensure that the constitutive documents are made available for inspection by the public.

(ii) Role of Trustee/Custodian

Every "authorized" investment fund established as a unit trust or mutual fund must respectively appoint a trustee or custodian. Trustees are expected to fulfill the duties imposed on them by the general law of trusts. In the case of a mutual fund corporation, the responsibilities of a custodian should be reflected in a constitutive document such as a Custodian Agreement.

An acceptable trustee/custodian should either:

(1) on an ongoing basis, be subject to regulatory supervision; or
(2) appoint an independent auditor to periodically review its internal controls and systems.

A. General obligations of Trustee/Custodian

The trustee/custodian must:

(1) take under its control all the property of the fund in trust for the holders in accordance with the provisions of the constitutive documents;
(2) register all assets in the name of the trustee/custodian; where borrowing is undertaken for the account of the fund, such assets may be registered in the lender's name;
(3) be liable for the acts of its agents in relation to assets forming part of the property of the fund;
(4) take reasonable care to ensure that the sale and repurchase of units/shares are carried out in accordance with the constitutive documents;
(5) take reasonable care to ensure that the sale and repurchase prices are calculated in accordance with the constitutive documents;
(6) carry out the instructions of the management company unless they are in conflict with the provisions of the constitutive documents;
(7) take reasonable care to ensure that the investment and borrowing limitations set out in the constitutivedocuments are complied with;
(8) issue a report to the holders on whether the management company has managed the fund in accordance with the provisions of the constitutive documents; if not, the steps which the trustee/ custodian has taken; and
(9) take reasonable care to ensure that unit/share certificates are not issued until subscription moneys have been paid.

B. Independence of Trustee/Custodian and the Management Company

The trustee/custodian and the management company must be persons who are independent of each other. In case the trustee/custodian and the management company have the same ultimate holding company, they are deemed to be independent of each other if:

(1) they are both subsidiaries of a substantial financial institution;

(2) neither the trustee/custodian nor the management company is a subsidiary of the other;

(3) no person is a director of both the trustee/custodian and the management company; and

(4) both the trustee/custodian and the management company sign an undertaking that they will act independently of each other; or

(5) the fund is established in a jurisdiction where the trustee/custodian and the management company are required by law to act independently of one another.

(iii) Role of Auditor

The management company or the directors of a mutual fund corporation must, at the outset and upon any vacancy, appoint an auditor for the scheme.

The auditor must be independent of the management company, the trustee/custodian and, in the case of a mutual fund corporation, the directors.

The management company must cause the fund's annual report to be audited by the auditor.

(iv) Role of Registrar

The fund, or in the case of a unit trust the trustee, or the person so appointed by the trustee must maintain a register of holder. The Commission must be advised on request of the address where the register is kept.

2.4 LIFE INSURANCE AND ANNUITY

The US Life Office Management Association Inc (LOMA) defines a life insurance policy as follows:

"A policy under which the insurance company promises to pay a benefit upon the death of the person who is insured."

2.4.1 Life Insurance

(a) Major Types of Life Insurance

Some of the major types of life insurance are summarized as follows:

(i) **Term insurance**: this provides cover for a specified period or term only, and may also be described as temporary insurance. The policy benefit is only payable if the insured person dies during the specified period, and the policy is valid at the time of death.

(ii) **Endowment insurance:** this provides for the payment of the face amount at the end of a specified term or upon earlier death. Should the insured survive the term, the policy is said to mature.

(iii) **Whole life insurance:** this involves a policy that is designed to last the whole of one's life. The fundamental feature is that the face amount is paid on death, whenever that occurs, and not before.

(iv) **Universal life insurance:** this is basically a life insurance contract with the following special features:

(1) It is subject to a flexible premium;
(2) It has an adjustable benefit;
(3) The expenses and other charges are disclosed to a purchaser;
(4) It accumulates a cash value; and
(5) It separates and discloses to the policyholder (unbundles) the pure cost of protection, the investment earnings, and the company expenses.

(b) Advantages of Life Insurance

- protection against uncertainty;
- suitable for long-term investment (except term insurance);
- protection against loss of income arising out of premature death;
- low risk; and
- accumulation of funds for specific purposes (except term insurance).

(c) Disadvantages of Life Insurance

- current cash flow reduced;
- low yield;
- need to have insurable interest at the inception of life insurance policy;
- illiquid (at least in the short term);
- lack of flexibility; and
- acceptance of purchase dependent upon underwriting decision of the insurer.

2.4.2 Annuity

An annuity is a series of periodic payments to an annuitant for life or other agreed term or conditions, in return for a single payment (premium) or series of payments. For example, an annuitant pays MOP1,500,000 now to buy an annuity that willpay the annuitant a monthly fixed payment of MOP10,000 for twenty years.

(a) Features of Annuities

Some features to be noted with annuities are:

(i) ***Immediate annuity****:* this is usually purchased with a single payment, the benefits or installments begin one annuity period (one month or six months) immediately thereafter.

(ii) ***Deferred annuity***: the installment payments begin at some specified time or specified age of the annuitant.

(iii) ***Variations***: a number of possible variations exist. One provides for installments to be paid for a fixed number of years only (whether death occurs in the meantime or not – an annuity certain). Another provides for installments to be paid for at least a specified number of years, whether death occurs or not, and for life if longer than that number of years – known as a guaranteed annuity (or life income with period certain).

(b) Advantages of Annuities

- stable cash flow;
- suitable for retiree;
- suitable for long-term investment;
- protection against loss of income arising out of excessive longevity;
- accumulation of fund for specific future purposes;
- regular and guaranteed income;
- low risk; and
- hedge against adverse financial developments.

(c) Disadvantages of Annuities

- decreasing purchasing power with fixed payments if inflation exists;
- retiree may outlive the annuity;
- low return;
- illiquid in the short term; and
- lack of flexibility.

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Representative Examination Questions

Multiple-Choice Questions

1. Which of the following is not a benefit for investing in investment funds?

   (a) affordability;
   (b) bank guarantee;
   (c) convenience;
   (d) diversification.

[Answer may be found in **2.3.7**]

2. Which one of the following investment options has all the advantages of capital appreciation, dividend income, liquidity and inflation hedge?

   (a) cash;
   (b) bonds;
   (c) options;
   (d) shares.

[Answer may be found in **2.3.3**]

3. Looking at the charges only, which type of investment funds is more suitable for an investment-linked insurance policy?

   (a) Class A stock because the investors are typically looking for a long term investment;
   (b) Class B stock because there is no load charge;
   (c) Class C stock because there is both load charge and an annual distribution fee;
   (d) None of the above.

[Answer may be found in **2.3.7**]

4. One of the advantages of investing in derivatives is:

   (a) the low level of volatility;
   (b) the guaranteed return;
   (c) the potential high return;
   (d) the dividend income.

[Answer may be found in **2.3.5**]

[*If still required, the answers may be found at the end of the Study Notes.*]

CHAPTER 3
Investment-Linked Insurance Policies

3.1 HISTORICAL DEVELOPMENT

Life insurance started some 400 years ago. It was created to satisfy the need for financial security. Over the years, existing insurance products were enhanced and new insurance products were developed to satisfy the market's evolving requirements.

Term life and ordinary whole life are the two traditional types of life insurance and have occupied the majority of the world individual life insurance market. Different features have been added to these two traditional types of life insurance to cater to customers' requirements over the years, with universal life, variable life and variable universal life (US-name) / unit-linked (UK-name) / investment-linked (Asia-name) being the most significant product design over the past 3 decades.

Universal life is a type of whole life insurance that is characterized by flexible premiums (both size and frequency) adjustable death benefits, and transparency of the administrative expenses and cost of insurance; but it gives the policyholders no freedom to invest in his preferred investment portfolio. Variable life is another type of whole life that shifts investment risk to policyholders, who is given the choice to select from a wide range of investment options the interests that his account or accounts earn increase the cash value(s) of the account(s). Variable universal life combines the premium and death benefit flexibility of universal life with the investment flexibility and risk of variable life.

We will briefly discuss the historical development of investment-linked policies through the review of the two bigger insurance markets: the US and the UK.

In the UK, unit-linked policies were first introduced in l957. In 1958, the government required that unit trusts could only be sold by intermediaries or by advertisements in the newspapers and for very modest commissions. This led to a problem for unit trust managers that it was almost impossible for them to produce a regular stream of sales of units.Therefore, they developed an idea that it should be possible to set up a regular savings plan under the form of a life insurance policy whereby the premiums would effectively be invested in a unit trust.

This type of unit-linked policies was a life insurance and not a direct holding in the unit trust. It was regulated as other forms of life insurance products, thus it was possible to sell it directly to the public by salesmen and for higher commissions. Therefore, many unit trust companies began to write unit-linked policies or make arrangements with existing life companies for policies to be offered linked to their own units. A number of life insurance companies also started to develop their own unit-linked products along similar lines. At the same time, single premium unit-linked life business also began in the UK. That was thoughtof as a better way of lump sum investment than unit trusts. Another point to note was that originally in the UK, unit trusts were not allowed to invest in property because of their illiquidity. However, there was no such limitation on single premium life insurance. If the UK people wanted to invest a lump sum in property "units", single premium unit-linked life insurance provided the only option.

The unit-linked insurance market in the UK is fast growing since then and now occupies a large portion of the individual life insurance market. The main factors which have led to the popularity of this product are: economic trends working in favor of the performance of unit-

linked products, consumers finding the product attractive, the sales environment of aggressive marketing, limited regulation on sales methods and the growth of information technology without which it would be impossible to administer the unit-linked business.

Another major reason for the growth in the UK for unit-linked life insurance versus unit trusts was that the latter could not offer managed funds (or more recently described as balanced funds). Unit trusts were usually single entity or specialist sector investments e.g. growth, technology, geographic funds, etc. On the other hand, the internal funds of unit-linked life assurance companies could offer a managed fund investing in varyingproportions of fixed interest securities, equities, properties and cash deposits without the need at the outset to fix the exact proportions.

Of the 7.2m investment and savings policies in force in the UK in 2013, a round a third were linked policies (source of data: Association of British Insurers). The UK major banks have all set up their own life insurance subsidiaries and they have also concentrated on selling unit linked products.

In the US, both universal life and variable life were first introduced in the mid-seventies. Both products gained modest success when they were first introduced. When variable life was introduced in the US, after being marketed successfully in the UK, Canada, and the Netherlands, it was considered as a product that could help offset the adverse effects of inflation on life insurance policy death benefits. Variable universal life was introduced to the US market in 1986.

The US life insurance market enjoyed a period of steady growth in premiums during the period 1995 to 2005. Then the Global Financial Crisis of 2007–2008 caused significant drops in life insurance sales in 2008 and 2009, probably owing to a decline in consumers' purchasing power and to withdrawal of supply of premium finance to institutional buyers. Individual life insurance sales have begun to recover gradually since 2010. In 2014, the US market shares by product in terms of new premiums were as follows: universal life and indexed universal life combined (38%), whole life (33%), term life (21%) and variable universal life (8%). (Source of data: Life Insurance Marketing and Research Association)

Macao has been slower than the overseas markets in the development of investment-linked insurance products. They were first introduced in 2000 and over the past few years they have gained popularity because of the customers' growing accumulated savings and sophistication, including familiarity with investment funds.

3.2 CHARACTERISTICS OF INVESTMENT-LINKED INSURANCE POLICIES

The premium rate for a life insurance policy/annuity is based on three main factors:

- cost of insurance;
- expenses to cover distribution and operation costs and to provide for contingency and profits of the insurance company; and
- interest/investment earnings.

The main characteristics of investment-linked insurance policies are:

1. all fees and charges are made known to the policyholder;

2. premium payments net of relevant charges such as cost of insurance and expenses are invested in the policyholder's chosen investment funds accounts that are separated from the company's general assets or investments (please refer to sections 3.6.2 and 3.6.8 for the different methods of premium application);

3. the value of the policy will fluctuate with the value of the underlying investment funds. The policy benefit such as the death benefit amount or annuity payment amount or cash value thus varies dependent upon investment performance with a minimum guaranteed death benefit;

4. generally offers a variety of investment funds each with a different investment strategy – such as money market, stock, bond funds etc.;

5. the policyholder takes on all the investment benefits as well as risks relating to the performance of his/her chosen investment fund; and

6. generally does not work well for too small premium amounts because deduction of expenses (some of which are in terms of fixed amounts and cost of insurance will leave behind a very small amount available for investment.

3.3 TYPES OF CHARGES OF INVESTMENT-LINKED INSURANCE POLICIES

As mentioned above, one of the fundamental differences of investment-linked policies and traditional term or whole life policies is that all charges are separated and made known to the policyholder. To better understand this product, we will start with an overview and description of the insurance charges as follows:

3.3.1 Charges

Insurance companies charge certain fees for the provision of insurance policies to cover the marketing, distribution, administration, and insurance expenses. These also contributed to the profit margins of the insurance companies. These charges apply to all insurance policies. The only difference is that for investment-linked policies, they are separately specified.

(a) Cost of Insurance/Mortality Charges

The cost of insurance is to cover the mortality, annuity payment and other benefits and is mainly based on the gender, age, smoking habit, sum assured, class of risk of life assured and death benefit option. Cost of insurance for life insurance policies is also known as mortality charges. The sharing of risk of death among a large group of people is the basis of life insurance. Mortality tables that reflect the average life expectancy of each age group are often used to give companies an estimate of how much will be required to pay for death claims per year.

Insurance companies in Macao usually use various mortality tables, e.g. "Hong Kong Assured Lives Mortality Table" and some creditable overseas mortality tables, as a reference. Cost of insurance for annuities is based on Annuity Mortality Tables instead of Life Insurance Mortality tables.

(b) Policy Fee/Initial Charges

This is also described as "premium charges" and "contribution charges" by some insurance companies. This covers the distribution, marketing and policy issue expenses of settingup a policy. Insurance companies normally charge a flat set up fee or a variable fee based on the size of the policy. While the charges may be small when you look at the life of the policy, however, on the short term, it can be a sizable amount that equates the premium payments for the first twelve months of the policy.

(c) Administration/Maintenance Fee

This is normally a fixed charge per year and/or a percentage of the premium applied to cover the insurance company's administrative expenses.

3.3.2 Insurance Charges related to Investment-linked Insurance Policy

(a) Bid-offer Spread

Premium payments net of insurance charges are allocated for purchase of investment fund, in accordance with the policyholder's investment strategy. The purchase of investment fund involves a charge reflected in the price difference between the purchase and sale of the investment units to the insurance company called the bid-offer spread.

The spread is the difference between the price at which the policyholder can buy units (the offer price) from the insurance company and that at which the policyholder can sell units (the bid price) to the insurance company.

The bid price is typically set at the Net Asset Value (NAV), which represents the value at which the underlying assets can be realized. Hence, when the NAV is MOP12, the bid price will normally be MOP12 and if the offer price is MOP12.60, then we would say the spread is 5% (expressed as a percentage of the bid price).

This is a charge imposed by the insurance company and is normally used to fund the marketing cost of the policy and is normally directly proportional to the size of the policy.

(b) Fund Management Fee

This is charged by the investment fund manager for their services rendered to manage the fund. It is usually expressed as a specified percentage of the fund's market value and is used to support the insurance company's investment management team and may range from 0.5% to 1% per annum. The level of this charge will depend on competition, the type of assets under management, the level of management activity involved and the profit requirements of the insurance companies. For example, an index fund would normally attract a lower management charge compared to an equity fund. Pricing of the units would have taken this into account.

(c) Fund Switching Charge

This relates to the fee charged for the policyholder to amend his/her investment option and allocation from time to time, i.e. to switch his/her investments between different funds offered by the insurance company. Normally, insurance companies will allow several switches per year free of charge. However, it should be noted that some insurance companies do not impose any charges for switching.

(d) Surrender Charge

This is charged when the policyholder surrenders his/her policy through the sale of the investment fund units. The fee is normally deducted from the value of the units sold at surrender. It represents the upfront expenses that have already been incurred by the insurance company such as policy fee, initial charges etc., but not yet recovered. As such, the surrender fee of an investment-linked insurance policy is normally charged on a sliding scale. The first-year surrender charge may be as high as 100% of a policyholder's contributions to cover the insurance company's upfront expenses.

(e) Top-up Fee

This is charged when the policyholder chooses to top-up his/her investment, i.e. to pay in further single premiums to purchase additional units. Some insurance companies apply a flat fee or percentage charge on the top-up amount. Please refer to section 3.6.3 for an example of top-up application.

(f) Fees and Charges of Underlying Funds

Some investment fund choices available under investment-linked policies are "feeder' or "mirror" funds in the sense that contributions made into these fund choices are invested entirely into an underlying fund which in turn invests in direct investments such as shares, bonds etc (please refer to section **2.3.7** for details on investment funds). This design is aimed at taking advantage of the investment management expertise of the manager of the underlying fund and economies of scale where monies from a wide range of investors are pooled together at the underlying fund level and invested.

Although the feeder/mirror fund structure has its advantages, policyholders who invest via the investment-linked insurance policy will have to indirectly bear all fees and charges of the underlying fund, including investment managementfee, custodian or trustee fee, administration fee and perhaps also subscription and redemption charge when units/shares in the underlying fund are subscribed or redeemed by the insurance company on behalf of policyholders (please refer to section **2.3.7(e)** for details of fees and charges of investment funds). These fees are in addition to whatever charges are imposed at the policy level. However, depending on the relationship and bargaining power of the insurance company vis-à-vis the investment manager of the underlying fund, some of the fees and charges at the underlying fund level may be reduced or waived.

3.4 TYPES OF INVESTMENT-LINKED INSURANCE POLICIES

Investment-linked insurance policies can be divided into two groups:

(a) Investment-linked annuities – this is a type of annuities whose annuity payment is variable according to the performance of the investment funds. Annuities are not common in Macao due to the lack of demand.

(b) Investment-linked life insurance – basically, any kind of life insurance product may be investment-linked. The more common linkages are with whole life and endowment. Due to the design of the product, the policy may offer premium and sum assured flexibility. Therefore, besides the characteristics of investment-linked insurance policies we mentioned in section **3.2**, these policies may also include (but not mandatory) some of the following features:

(i) It usually offers the flexibility in premium payments, although single premium payment options are also offered. It allows the policyholder to increase or decrease the amount of regular premiums, add top-ups to the policy at any time, or even skip premium payments for a period of time (take premium holiday), provided that the policy value is sufficient to cover the mortality charges and fees.

(ii) It offers the flexibility in the sum assured. The policyholder can adjust the sum assured of the policy. Increase in sum assured is usually subject to evidence of insurability.

(iii) It offers two options of death benefit. The policyholder can choose either a level death benefit option or an increasing death benefit option (please refer to section **3.6.6** for details).

(iv) It allows withdrawal from the policy provided that the remaining balance is sufficient to cover mortality charges and fees and no debit interest isincurred.

In the following sections, we will focus our discussion on this type of investment-linked insurance policy.

3.5 PREMIUM STRUCTURES OF INVESTMENT-LINKED POLICIES

We can generally classify investment-linked policies into two categories which are differentiated by its premium structure: single premium plan and regular premium plan.

3.5.1 Single Premium Plan

Investment-linked policies that are financed by single premiums are forindividuals who have a large capital sum at their disposal. In addition to the value of protection, they will be looking for a long-term and profitable investmentalternative that will also provide them with the freedom to implement their own investment strategy.

3.5.2 Regular Premium Plan

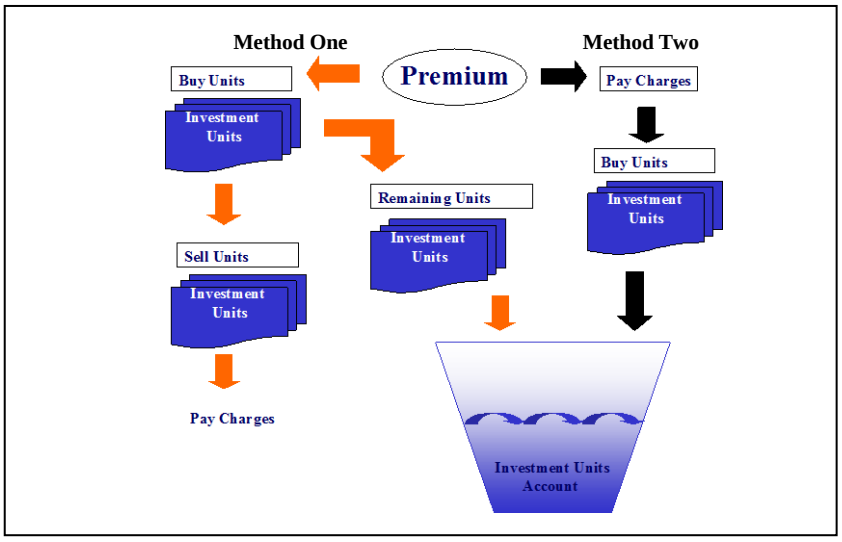
Investment-linked policies financed by regular premiums are for individuals who want to build up savings on a regular basis. Also, in addition to the value of protection, they will enjoy a flexible investment strategy as well as the ability to spread the risk of investment with small amounts of capital investment through unit participation in various investment funds.

3.6 BASIC CALCULATIONS OF SINGLE PREMIUM AND REGULAR PREMIUM INVESTMENT-LINKED POLICIES AND THEIR DEATH BENEFITS

3.6.1 Basic Calculations of Single Premium Policies

Initially, unless waived by Government, a single premium gross of 2% government stamp duty is paid to the insurance company which will then pay back to Government. Government stamp duty and insurance charges are deducted from the premium either initially when the premium is paid or at regular intervals (monthly, annually etc.) throughout the life of the policy. The remainder is used to purchase units of the selected investment funds.

There are generally two ways used by an insurance company to deduct insurance charges from the premium. One method is to convert the entire premium into investment units and then convert the appropriate number of units back into cashto cover the relevant charges. The other method is to deduct the relevant insurance charges upfront with the remaining to be converted into investment units for the policyholder’s investment account.



The following example is used to demonstrate the calculation of premium application, top-up premium, withdrawal or partial surrender benefit, the two types of death benefit options, applicable in the case of a single premium policy. An example on the calculation of return on gross premium is also illustrated. For simplicity of illustration, we will work with the premium net of government stamp duty of 2% and will assume that only life cover is purchased, no other rider benefits are attached to the policy and the investment has been put into one single fund.

Assuming:

Single premium = MOP50,000

Current NAV per unit of investment fund = MOP12

Bid-offer spread = 5%

3.6.2 Premium Application Method One

One of the practices is to apply all of the MOP50,000 premium into the purchase of investment fund units. Bid price as mentioned earlier is usually set at the net asset value (NAV). Given the bid-offer spread of 5%, with the bid price at MOP12,the offer price can be calculated as MOP12 x (1 + 0.05), or MOP12.60. That is, the insurance company will sell the units for this investment fund at MOP12.60 each.

The number of units that can be purchased will be 50,000/12.60, i.e., 3,968.25 units or, in other words, the fund will allocate 3,968.25 units to this policy.

Assuming:

Policy fee = MOP1,000

Administration and mortality charges for the entire duration of the policy

= **2.5% of premium

** Assumed rate because we will not get into the mortality rate of the specific policyholder. Charges and fees will be collected through the cancellation of units. We will assume that all charges and fees are deducted at inception and that other selling expenses are charged into the bid-offer spread. Then, the number of units which is required to be cancelled (cashed) would be:

Policy fee = MOP1,000

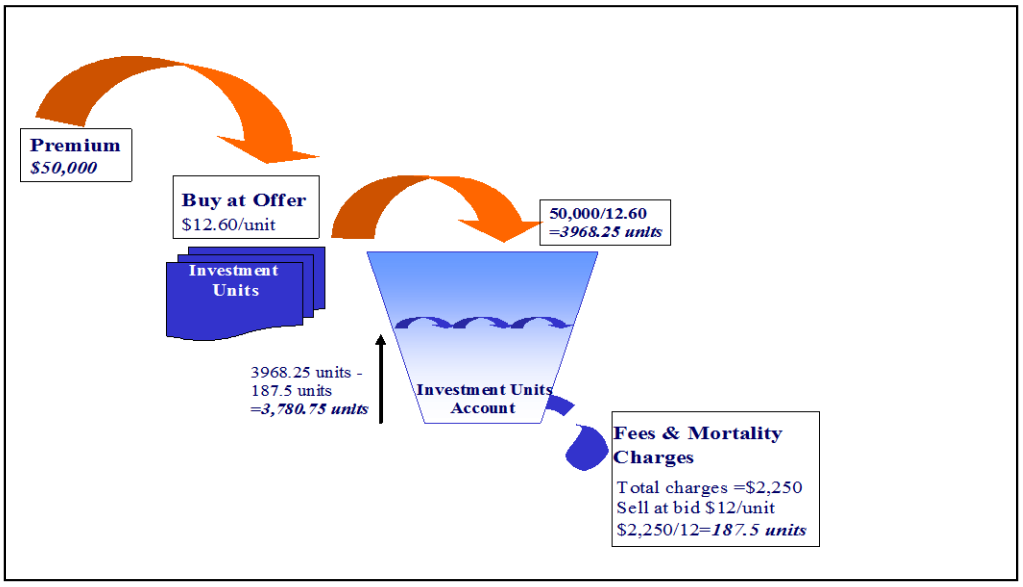
Administrative and mortality charge = MOP50,000 x 2.5% = MOP1,250

Total charges = MOP(1,000 + 1,250) = MOP2,250

Since the units will be cancelled at the bid price, i.e. MOP12

Number of units to be cancelled = 2,250/12 = 187.5

Hence, the number of units left = 3,968.25 - 187.5 = 3,780.75



3.6.3 Top-up Application

If the policyholder wants to top-up MOP20,000 premium two years after the inception of the policy.

(For simplicity of illustration, we will work with the premium net of government stamp duty of 2% and will assume that only life cover is purchased, no other rider benefits are attached to the policy and the investment has been put into one single fund.)

Assuming:

Top-up fee = MOP200
Administrative charge = 1.5% of top-up premiums applied

Assuming that the unit price does not fluctuate but grows at a flat rate of 8% per annum for two years from the initial bid price of MOP12.

Bid price in year one = MOP12 x 1.08 = MOP12.96
Bid price in year two = MOP12.96 x 1.08 = MOP14.00

Or = MOP12 x 1.082 = MOP12 x 1.1664 = MOP14.00

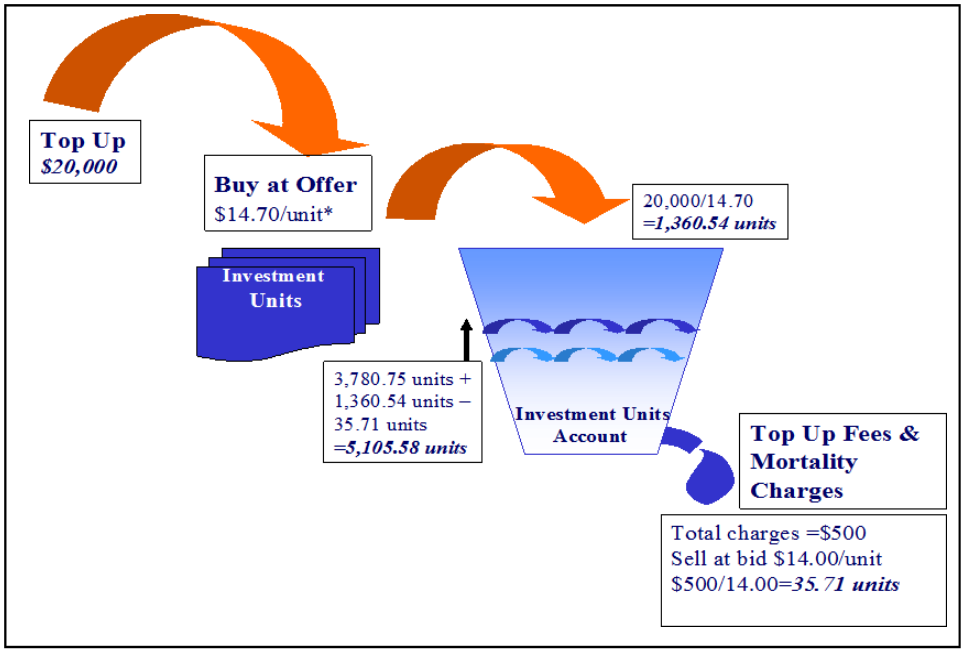
Offer price in year one = MOP12.60 x 1.08 = MOP13.61
Offer price in year two = MOP13.61 x 1.08 = MOP14.70

Number of additional units that can be purchased
= 20,000/14.70 = 1,360.54 units

Administrative charge = MOP20,000 x 1.5% = MOP300
Total charges for top-up = MOP(200 + 300) = MOP500
Number of units to be cancelled = 500/14.00 = 35.71

Additional number of units purchased = (1,360.54 - 35.71) units
= 1,324.83 units

Total holding (in number of units) = (3,780.75 + 1,324.83) units = 5,105.58 units



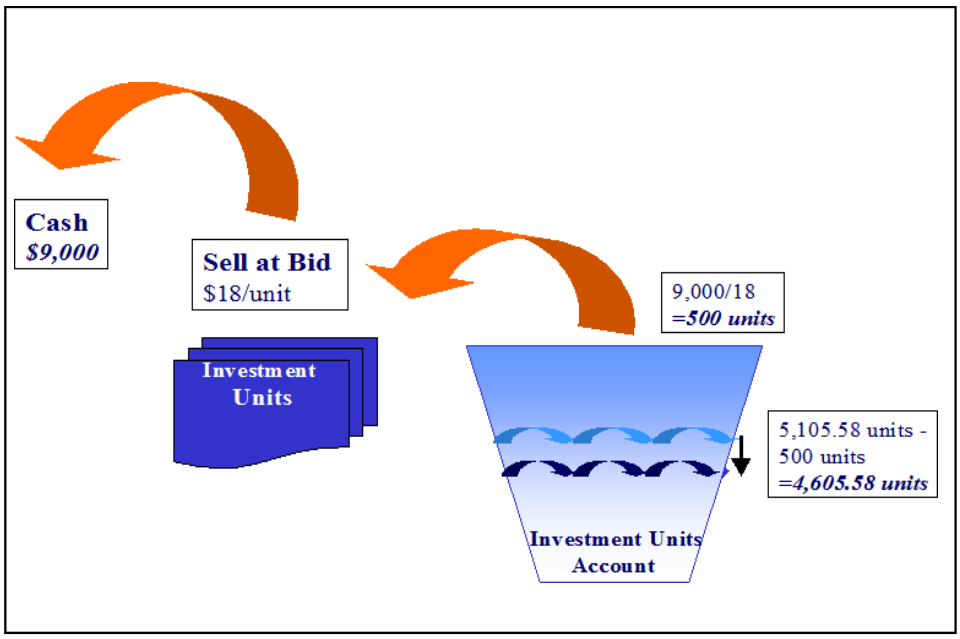
3.6.4 Partial Withdrawal (Partial Surrender) Benefit

One of the features of investment-linked policies is that the policyholder can withdraw, or surrender, (subject to surrender charge) all or part of the units at the bid price at any time (some policies may specify minimum amount of

withdraw/surrender).

If the policyholder now wishes to withdraw, say MOP9,000, at a bid price of MOP18, the number of units that has to be cancelled is 9,000/18 = 500 units

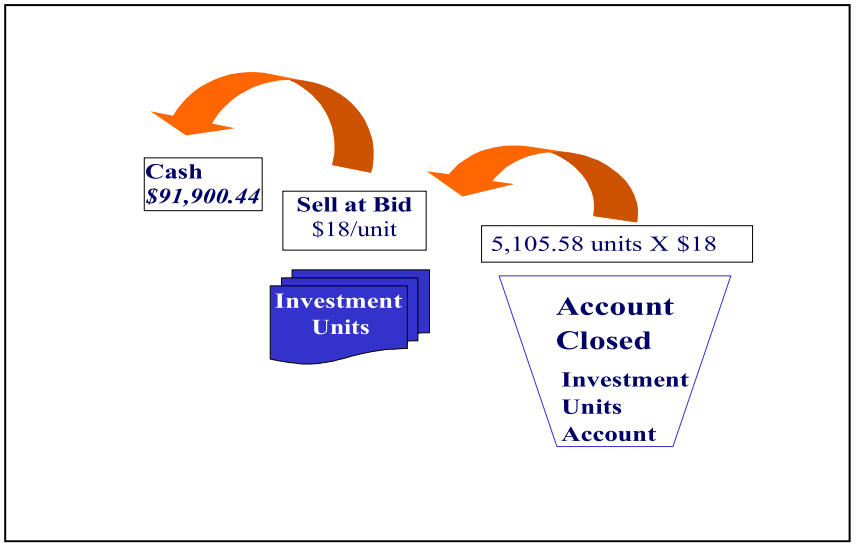
The number of remaining units = 5,105.58 - 500 = 4,605.58 units



3.6.5 Surrender Value

If, instead of a partial withdrawal, the policyholder chooses to surrender the whole policy (again at a bid price of MOP18), the surrender value will be:

MOP18 x 5,105.58 = MOP91,900.44



3.6.6 Death Benefit

Two types of death benefits options are commonly available with investment-linked policies: increasing death benefit or level death benefit.

(a) Increasing Death Benefit (DBI)

The death benefit will be the value of the units accumulated in the policyholder's account, at the date of death, plus the chosen death cover. Under an increasing death benefit, and assuming the coverage is, say 150% of the single premium, the sum assured payable at death is:

Sum assured at death = **value of units (at the date of death) at bid price + 150% of MOP50,000

Based on the above example where the number of units left in the policy, after the MOP20,000 top-up and the MOP9,000 withdrawal, is 4,605.58 units, and assuming the bid price at the date of the death claim is MOP20, the sum assured is:

MOP20 x 4,605.58 + MOP50,000 x 150%
= MOP92,111.60 + MOP75,000 = MOP167,111.60

(b) Level Death Benefit (DBL)

The death benefit will be the higher of the value of units accumulated in the policyholder's account at the date of death or the chosen death cover.

Under a level death benefit, assuming that the coverage is, say 150%, the sum assured payable at death is:

Sum assured at death = **value of units (at the date of death) at bid price or 150% of MOP50,000, whichever is the higher

** It should be noted that, for simplicity of illustration, we have used the same mortality charges for both the DBI and DBL calculations, thus the two options have the same value of units at the date of death. In actual case, the mortality charges or cost of insurance will depend upon the type of death benefit option chosen and the mortality chargefor DBI will always be more expensive than that of the DBL. When the mortality charges are higher, the amount of premium invested in the investment funds will be smaller and thus the total number of units accumulated in the policyholder's account should also be smaller.

Again based on the above example where the number of units left in the policy, after the MOP20,000 top-up and the MOP9,000 withdrawal, is 4,605.58 units, and assuming the bid price at the date of the death claim is MOP20, the sum assured is:

The higher of MOP20 x 4,605.58 or MOP50,000 x 150%, i.e. the higher of MOP92,111.60 or MOP75,000.

The sum assured payable at death will be MOP92,111.60 since this is the higher value.

3.6.7 Return on Gross Premium

This is a calculation which most insurance companies will use on their sales illustrations to provide an estimated return for various investment related products.

The calculation takes into account the compound rate of return and is calculated as follows. Using the above example where the policyholder starts with MOP50,000 and has been allocated 3,780.75 units (after all the charges). The initial unit bid price is MOP12. In 10 years time, MOP12 will be MOP25.91 assuming a growth rate of 8%. Thus, in 10 years time, the value of the units will be 3,780.75 x MOP25.91 = MOP97,959.23. The return on gross premium using the same MOP50,000 as per the previous example will be calculated as follows:
(Please refer to **Appendix A** for the concept of compound rate of return.)

Let r be the rate of return on gross premium per annum.

$$\text{MOP50,000}\ (1 + 2\%) \times (1 + r)^{10} = \text{MOP97,959.23}$$

$$(1+r)^{10} = \text{MOP97,959.23/MOP50,000}$$
$$= 1.9592$$
$$(1+r) = 1.9592^{1/10}$$
$$= 1.0696$$
$$r = 1.0696 - 1$$
$$= 0.0696$$
$$= 6.96\%$$

3.6.8 Premium Application Method Two

Another method that is sometimes used for the calculation of the number of units allocated to the policy is to deduct the policy fee, and the administrative and mortality charges from the single premium before applying the net balance to purchase the units.

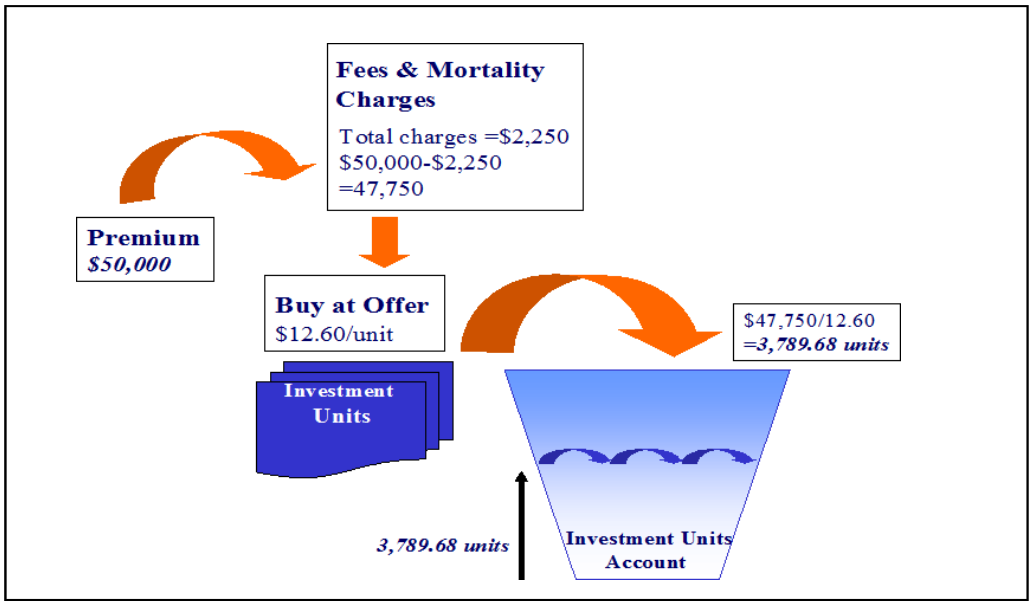
Assuming:
Single premium = MOP50,000
Policy fee = MOP1,000
Administrative and mortality charges = MOP50,000 x 2.5% = MOP1,250

Net premium for investment = MOP(50,000 - 1,000 - 1,250) = MOP47,750

As the current NAV (bid price) is MOP12, the offer price is MOP12.60 (please refer to section **3.6.2**), the number of units purchased is therefore 47,750/12.60 = 3,789.68 units. It should be noted that the number of units that is attributable to the policyholder is slightly higher due to the fact that the policy fee and the administrative and mortality charges do not suffer the bid-offer spread.

Another method commonly used in Australia and the UK is for the policy fee, administrative and mortality charges to be deducted at regular interval, e.g. monthly, throughout the life of the policy even for the single premium policy.

The application of top-up, withdrawal, surrender, DBI and DBL will follow the same calculations as previously illustrated.



(Note: For simplicity of illustration, we will work with the premium net of government stamp duty of 2% and will assume that only life cover is purchased, no other rider benefits are attached to the policy and the investment has been put into one single fund.)

3.6.9 Basic Calculations of Regular Premium Policies

Regular premium policies operate under similar principles as single premium policies. The major difference is that the policyholder pays premiums regularly. The policyholder has the flexibility of being able to vary the level of regular premium payments and make single premium top-ups or skip premium payments for a period of time.

It should be noted that depending on each insurance company's level of commission and expense charges, during the first year, although the policyholder is assigned some units, quite a substantial part of these units might have been redeemed to pay for the "long-term" charges due to the initial distribution and policy issuance cost incurred by the insurer at the initial stage. As such, the policyholder of regular premium policies might not own any investment units for the first year of premium payments. A typical structure of premium allocation may be as follows:

Year 1 Net of government stamp duty, initial charges, monthly administration and mortality charges 0% will be invested

Year 2 Net of government stamp duty, initial charges, monthly administration and mortality charges 50% will be invested

Year 3 & After Net of government stamp duty, monthly administration and mortality charges 100% will be invested

In this example, we assume that all initial charges are amortized over two years with a more heavy allocation for year one. Through this example, we can see why it is costly for the policyholder to surrender the policy within the first few years of purchase.

It should be noted that some insurance companies do not use the above initial charge amortization but choose to amortize it over a longer period of time. This will result in the allocation of some units in the policyholder's investment account,even during the first year. However, in doing so, the insurance company in taking the risk of not being able to recover all of its upfront expenses in the event the policy is cancelled within the first couple of years after issuance. In this situation, the insurance company may impose a surrender charge to recover the upfront expense.

3.6.10 Monthly Application of Regular Premium

Method one of deduction is the normal practice of insurance companies used in Macao, that is, they will convert all monthly premiums into investment units and then cancel sufficient units to cover monthly charges.

Calculations are similar to single premium except that government stamp duty and mortality charges for the life of the policy under single premiums are usually fully deducted at the commencement of the policy, government stamp duty and mortality charges for regular premium policies are calculated monthly and are deducted from the investment account.

While there will still be the two death benefit options, the calculations are a little different for regular premium versus single premium and thus is separately illustrated in the following paragraphs:

(For simplicity of illustration, we will work with the premium net of government stamp duty of 2% and will assume that only life cover is purchased, no other rider benefits are attached to the policy and the investment has been put into one single fund.)

Example Calculations:

Assuming:
Rate of annual cost of life cover = MOP6 per thousand
Chosen death cover = MOP500,000
Number of units in the investment account = 400
Bid price = MOP12
Offer price = MOP12.60
Monthly policy fee = MOP30
Monthly premium = MOP500

1. Increasing Death Benefit (DBI)

DBI = value of account + sum assured (chosen death cover)

Value of account = 400 x MOP12 = MOP4,800

Sum assured at death = MOP4,800 + MOP500,000 = MOP504,800

Deduction Calculations:

Units purchased per month = 500/12.60 = 39.68 units

Amount at risk = chosen death cover = MOP500,000

Mortality charge for one month
= rate of annual cost of life cover x (1/12) x amount at risk
= MOP(6/1,000) x (1/12) x MOP500,000
= MOP250

Total charges plus policy fee = MOP250 + MOP30
= MOP280

Number of units to be cancelled = 280/12
= 23.33 units

Total number of units remaining = (400 + 39.68 – 23.33) units
= 416.35 units

2. Level Death Benefit (DBL)

DBL = the higher of value of account OR sum assured (chosen death cover)

Value of account = 400 x MOP12 = MOP4,800

Sum assured at death = MOP500,000

DBL = MOP500,000 (higher of MOP4,800 or MOP500,000)

Deduction Calculations:

Units purchased per month = MOP500/12.60 = 39.68 units

Amount at risk = chosen death cover less account value
= MOP500,000 – MOP4,800
= MOP495,200

Mortality charge for one month
= rate of annual cost of life cover x (1/12) x amount at risk
= MOP(6/1,000) x (1/12) x MOP495,200
= MOP247.60

Total charges plus policy fee = MOP247.60 + MOP30
= MOP277.60

Number of units to be cancelled = 277.60/12
= 23.13 units

Total number of units remaining = (400 + 39.68 – 23.13) units
= 416.55 units

As the mortality charges are calculated monthly and are deducted from the account, it is very simple for the insurance company to allow the policyholder to vary the chosen life cover over time. The increase in life cover is subject to evidence of insurability. Because of this feature, investment-linked policies enjoy a substantial advantage over traditional policies in flexibility. Monthly charges for other benefits like dread disease,total and permanent disability and accidental benefits are calculated in a similar way.

3.7 STRUCTURES OF INVESTMENT-LINKED FUNDS

Similar to the majority of investment funds, investment-linked funds are generally structured as follows:

(a) ***Accumulation Units***: all profits generated from the investments are "accumulated" and reinvested back into the original fund; thus enhancing the price of the units. The number of units held will remain the same.

(b) ***Distribution Units***: all profits generated from the investments are "distributed" as bonus units to the investors; thus increasing the number of units held. The price of the units will remain the same.

As the policyholder will be entitled to all the profits generated, or all the losses incurred, from the investments, he/she will therefore benefit, or suffer, either from the higher, or lower, unit price (accumulation units) or the increased, or decreased, number of units (distribution units).

3.8 TYPES OF INVESTMENT-LINKED FUNDS

In theory, an investment-linked insurance policy can be linked to any type of investment funds. There are many types of investment funds, ranging from conservative funds (money market funds) to risky funds (warrant funds). Their classification is usually based on the stated investment objectives and underlying investments of the funds.

Insurance companies usually offer a wide range of funds to the policyholder. According to the individual policyholder's investment strategy, he/she may first select the appropriate investment funds, and then form his/her own investment portfolio by allocating weights to the funds selected. For example, he/she may select Fund A, B, C and D and allocate 40% of the investment in Fund A, 30% in Fund B, 20% in Fund C and 10% in Fund D. The contributions will be invested according to this allocation. Insurance companies usually allow the policyholder to switch funds or alter the portfolio at any time.

Fund allocation is very important to balance the risk and return of the portfolio.

In Macao, most insurance companies categorize their funds as deposit fund and unitized funds. They will be briefly summarized in the following sections.

3.8.1 Deposit Fund

This is a notional interest bearing fund. Unit offer price of the funds is typically set at MOP1,000. Interest, in the form of units being purchased at the unit offer price, will be credited to the account.

This allows the small investors to invest in money market instruments and is also called money market fund or money fund.

Principal objective: to invest in short-term money markets instruments in order to provide stable income with minimal capital risk

Special features: open-ended;
unit offer price remains constant (e.g. MOP1,000);
interest credited to the account as units purchased; and
participation in short-term investment instruments .

Advantages: safest, most stable;
higher return than bank deposits; and
asset liquidity.

Disadvantages: interest rate may fluctuate; and
relatively low return.

3.8.2 Unitized Funds

These are specific, separately managed funds, either managed by the insurance company itself or independent fund managers. Some of the commonly used types of investment funds are outlined as follow:

(a) Bond Fund

Principal objective: to provide stable income with minimal capital risk

Special features: investing in bond market;
being equivalent to a diversified bond portfolio;
debt securities issued by governments or large corporations; and
some may invest in higher yield junk bonds.

Advantages: higher return than money market fund;
fund managers can trade and take advantage of interest rate movements; and
usually can cover inflation.

Disadvantages: risk of rising interest rate; and
credit risk of issuer.

(b) Equity Fund

Principal objective: to achieve higher long-term capital appreciation

Special features: investing in equity market;
more suitable for long-term investment; and
being equivalent to a diversified shares portfolio.

Advantages: higher historical return;
good hedge against inflation; and
full utilization of fund manager's expertise.

Disadvantages: higher management fee may be charged;
higher risk than bond funds; and
risk of company failure.

(c) Index Fund

Principal objective:	to mirror specific index performance
Special features:	passive management; automatic investment decisions; limited number of transactions; and may also be tied to non-equity indices.
Advantages:	easy to understand; lower management fee; less risky than index futures; and hedging available.
Disadvantages:	cannot capitalize on market movements; only track market performance; cannot outperform market; and unwelcome during a bear market.

(d) Warrant Fund

Principal objective:	to achieve exceptional high return
Special features:	investing mainly in warrants; and leverage through the use of warrants.
Advantage:	possible high return
Disadvantage:	extremely high risk

(e) Global Fund

Principal objective:	to invest in stocks or bonds throughout the world
Special feature:	international investment
Advantages:	diversification; and capture overseas investment opportunities.
Disadvantages:	currency, political risks; complicated custodian arrangement; differences in accounting procedures; and lesser degree of public information.

(f) Regional/Country Fund

Principal objective: to invest in a specific region or country

Special feature: typically closed-end funds, could as well be open-ended funds

Advantages: potentially high growth; and
capture the opportunity of a region.

Disadvantages: high risk;
low liquidity; and
lack of diversification.

(g) Specialty Fund

Principal objective: to invest in a specific industry/sector and capitalize on the return potential

Special features: concentration in one particular industry; and
high risk, high return.

Advantages: potentially high growth;
full utilization of fund manager's knowledge on the particular industry; and
capture the opportunity of an industry.

Disadvantages: higher risk potential;
lack of diversification; and
low liquidity.

(h) Income Fund

Principal objective: to generate current income rather than to achieve growth

Special features: dividends from preferred stocks; and
coupon payments from bonds.

Advantages: regular income;
medium risk; and
good liquidity.

Disadvantage:relatively low capital appreciation

Some income funds maintain more aggressive objectives than others.

(i) Balanced Fund

Principal objective: to achieve both income and capital appreciation and to avoid excessive risk

Special features: investing in a combination of stocks and bonds;
emphasizing the growth potential of stocks;
relative stability of income from bonds; and
mid-way between bond and growth fund.

Advantages: balanced risk and return; and
diversification.

Disadvantages: medium return; and
may not fully capitalize on a bull market.

(j) Growth Fund

Principal objective: to achieve maximum capital appreciation rather than a flow of dividends

Special features: investing in growth stocks; and
may invest in smaller, lesser known companies out of mainstream market which fund managers believe possess dynamic potential.

Advantages: higher growth rate; and
full utilization of fund manager's expertise.

Disadvantages: some fund managers may adopt highly aggressive/ speculative strategy;
extremely high risk; and
no consistent income/dividend flow.

(k) Guaranteed Fund

Principal objective: to be neutral to negative market performance with a guarantee on the principal/return

Special feature: guaranteed amount will be paid upon maturity

Advantage: no risk of principal

Disadvantages: application of high guarantee fee;
minimum investment period applicable;
special conditions may apply; and
relatively lower return.

(l) Fund of Funds (Unit Portfolio Management Funds)

Principal objective:	to carry out diversified professional management
Special feature:	investing in other mutual funds
Advantage:	diversification
Disadvantage:	higher management fee may be incurred

3.8.3 Switching

Most insurance companies in Macao selling investment-linked policies will offer more than one fund to its policyholders. The policyholders will be allowed to switch funds or alter their investment portfolios from time of time.

The switching facility benefits the policyholders in the implementation of anoptimal investment portfolio to fit their personal investment objective or to react tochanges in the financial markets. For example, as retirement age approaches, the policyholders may wish to switch their investment from a more aggressive equity fund to a more stable and liquid income fund. Alternatively, at some stage of the investment, the policyholders may wish to switch their investment from a balanced fund to a specialty fund (e.g. a technology fund) to take advantage of the growth potential in that particular industry.

3.9 BENEFITS OF INVESTING IN INVESTMENT-LINKED POLICIES

As the investment performance of an investment-linked insurance policy is directly linked to that of the underlying investment fund, it inherits all of the benefits (please refer to section **2.3.7**)of an investment fund.

When compared with other types of life insurance products, the major advantage of an investment-linked insurance policy lies in the potential return on investment and flexibility. This flexibility allows an appropriate insurance program to be tailored for each individual policyholder. Some of the benefits are outlined as follows:

(a) ***Potentially Higher Investment Return***: The policyholder, in addition to the death benefit cover, will have the opportunity to devise his/her own investment portfolio based on the number of funds available to suit his/her investment objective. The policyholder can design his/her own investment strategy and invest into the different investment funds offered by the insurance company to balance his/her risk/return preference. He/she can also choose to switch between different funds tofit his/her own investment needs during different stages of his/her life cycle, ortake advantage of the prevailing market condition.

(b) ***Flexible Premium***: One of the most attractive features of investment-linked policies is that the policyholder has the option to vary the premium, that is, to increase or decrease the amount of regular premiums to be paid as well as to add top-ups to the policy from time to time.

Flexible premium enables the policyholder to pay higher amounts when his/her cash flow is strong. Provided that the balance in the investment account is sufficient to cover fees and related investment charges, the policyholder can also reduce, or stop altogether, payment of premium in situations where his/her cash flow is insufficient, e.g. when he/she loses his/her current job.

(c) ***Variable Sum Assured:*** In addition to the flexibility of varying premiums, a policyholder can vary the sum assured. In the regular premium investment-linked policies, a policyholder can choose his/her own sum assured, within certain limits, for any given premium. Subsequent to the completion of the contract, he/she can still adjust the sum assured up or down (again within certain limits) according to his/her new circumstances. Normally, such variations are subject to one change per year and underwriting requirement.

Compared to traditional whole life insurance, this is a convenient way to increase or decrease the sum assured (subject to certain limits). The reason is that most traditional whole life policies do not allow the decrease of sum assured, and a term life insurance rider attached to the policy will be issued for the increase of sum assured.

(d) ***Variable Death Benefit:*** There are two common options of death benefit. The policyholder can choose either a level death benefit option or an increasing death benefit option. For the former, the death benefit is equal to the higher of the specified amount of the death benefit, or the value of the units accumulated in his/her investment account at the date of death. For the latter, it is equal to the specified amount, plus the value of units accumulated. A healthy and successful investment portfolio will increase the death benefit of the policy in the long run.

(e) ***Partial Surrender/Withdrawals Allowed***: The policyholder is usually allowed to make withdrawals for a specific minimum amount provided that the remaining balance is sufficient to cover fees and related insurance charges. Such a withdrawal is achieved by cashing in the number of units necessary to give the withdrawal amount.

Compared to traditional life policies, the benefit of investment-linked policies is that the policyholder has the option of withdrawing units/cash from the policy without having to take out a policy loan where interest costs will be incurred, or to surrender the policy in return for a surrender value and thus losing the protection.

(f) ***Capture the Benefits of Investing in Investment Funds***: A couple of obvious benefits derived from investing in investment funds include the access to professional fund management expertise and to a diversified portfolio through limited capital requirement.

3.10 RISKS OF INVESTING IN INVESTMENT-LINKED POLICIES

Performance of investment funds is not guaranteed and may go up and down. Since the values of investment-linked policies are directly related to the performance of their underlying investments, the poor performance of the chosen investments can potentially reduce the values of the policies. As such, while the potential yield of investment-linked policies may be higher than that of traditional policies, they can also be lower depending on the performance of their underlying investments.

The other risk is that unlike the investment into normal investment funds, investment-linked policies have an additional time factor to be considered. The policies are usually established for a pre-determined period with a lifespan of at least 5 years where fees and charges are heavily stacked at the beginning of the term. Thus, as discussed previously, early redemption of these policies will be subject to very high encashment charges because of the deduction of fees and charges to cover the upfront expenses of the insurance company.

Other Risks, including the following:

- Insurers and fund managers are subject to credit and insolvency risks.
- Those with whom the client has entered into a financial contract may fail to fulfil their obligations under the contract.
- The values of the policy and the underlying funds are subject to foreign exchange risk.
- The funds put into the policy are subject to reinvestment risk should any investment be suspended or subject to a prolonged turnaround time to trade.
- If monies paid into the policy are funded by premium financing, leverage or gearing, and if the rate of return of the policy is lower than the interest rate payable for the premium financing, leverage or gearing, there is a risk of financial loss caused by such interest rate risk.
- If the policyholder ceases premium payments temporarily by virtue of a policy provision of "premium holiday", he will face the risks of reduced policy value, reduced bonuses, and even a policy lapse.

3.11 COMPARISON OF INVESTMENT-LINKED INSURANCE POLICIES WITH GUARANTEED AND WITH-PROFITSPOLICIES

3.11.1 Guaranteed Policies/Without-Profits/Non-Participating Policies

These products guarantee a fixed rate of return to policyholders in term of death benefit and cash value, if any. Examples are term insurance and non-participating whole-life and endowment insurance. These policies are sold on a guaranteed cost basis, meaning that all policy elements (i.e., the premium, the face amount, and the cash values, if any) are guaranteed and will not vary with the experience of the company.

3.11.2 With-Profits/Participating Policies

Examples of such policies are with-profits (participating) whole life and endowment insurances. These policies are entitled to receive a share of (participate in) the divisible surplus (profits) of the insurance company. These are normally paid in the form of dividends which will be credited into the account. For insurance companies using UK style practice, they will use bonus systems which include reversionary bonus, performance or terminal bonuses.

3.11.3 Comparison Criteria

Basically, we should compare investment-linked insurance policies withother conventional life insurance policies along the following criteria:

- Investment returns and risks;
- Investment option;
- Premium;
- Death benefit;
- Death benefit option;
- Cash value; and
- Partial withdrawal.

The comparison is summarized in the following table:

Criteria	Guaranteed Policies/ Without-Profits Policies/ Non-Participating Policies	With-Profits Policies/ Participating Policies	Investment-linked Policies
Investment Returns and Risks	Fixed amount of payment will be made on death or at maturity, therefore no investment risks for these products except the risk of insolvency of the life insurance company. However, the returns are low.	The returns are linked to the insurance company's overall investment performance. Hence it offers returns which are "smoothed" because insurance company contributes into reserves in good investment years and draws from reserves in bad years. Future bonus/dividends are never guaranteed.	The investment risk is higher and borne by the policyholders. The policy values vary according to the values of the investment funds. As such, the benefits and risks of these products accrue directly to the policyholders and no smoothing is made, unlike a with-profits policy. The risk or volatility of returns depends on the investment strategy of the fund.
Investment Option	No	No	Yes
Premium	Fixed Increasing or level during the term for term policies and usually level for non-participating whole-life and endowment policies.	Fixed and usually level	Flexible. Allow to change premium payments, to take premium holidays and to add premium top-ups. Also, the insurance company may vary some of the charges made under the policy. If future experience diverges from what had been assumed when the product was priced, it may vary charges. Hence, there is an initial pricing exercise and on-going review, comparing actual experience with what has been assumed.

Criteria	Guaranteed Policies/ Without-Profits Policies/ Non-Participating Policies	With-Profits Policies/ Participating Policies	Investment-linked Policies
Death Benefit	Fixed Level/increasing/decreasing for term policies, level for non-participating whole life and endowment policies.	Fixed and level	Variable, based on performance of the investment account but there is a minimum death benefit payable upon the death of the life insured.
Death Benefit Options Available	No	No	Yes, usually two death options are available. They are "Increasing death benefit" and "Level death benefit".
Cash Value	No cash value for term policies. Fixed and guaranteed, if any, for non-participating whole life and endowment policies.	Fixed and guaranteed	Variable, based on performance of the investment account. Not guaranteed
Partial Withdrawal Permitted	No	No	Yes, usually permitted in the form of Partial Surrender

3.12 TAXATION

Under current Macao laws, returns on investment are not subject to capital gains tax. It follows that the investment returns generated by the underlying investment funds of the investment-linked policies will normally not be taxable. In Macao, unless waived by the Government, all life insurance policiesare subject to government stamp duty of 2% on the sum of the premium, additional premiums and any amounts which constitute receipts of the insurer whether collectedtogether or separately in the same insurance document. Prospective policyholders should seek independent advice from tax consultants for the purpose of estate planning.

It should also be noted that overseas residents may be subject to the tax law of their respective country and this can be very restrictive. Prospective policyholders should be advised to obtain their own independent tax advice.

3.13 SALES PRACTICE

One of the key concerns of the industry and the regulatory authorities regarding investment-linked policies is the manner in which they would be sold by insurance intermediaries/licensed persons and how the investors would understand them.

Insurance intermediaries cannot provide suggestion on securities investment to their clients even if they are licensed insurance intermediaries by the AMCM. That means insurance intermediaries who are licensed to sell investment-linked policies to the client are not allowed to provide any advice on the investment funds linked to the policies in the sales process.

3.13.1 Understand the Financial Needs of the Client

Different types of life insurance serve different purposes and meet the different financial needs of the insurance customers. Investment-linked insurance products may not be suitable to every client. They are more suitable for the customers who want not only life insurance protection but also:

- require a higher investment return than traditional insurance policies;
- have a higher tolerance of risk;
- have a desire to make choices about the kind of investments that support the benefits of their policies;
- are willing to pay a higher premium than traditional whole life; and
- have a medium or long-term investment objective.

Therefore, before introducing this type of life insurance policy to a client, the insurance intermediary must first understand the prospective client's financialneeds.

This may be achieved by gathering the required information from the client through a systematic probing exercise. When performing personal financial review, two major types of information that should be obtained are: objective and subjective information. The insurer and insurance intermediaries must abide by Personal Data Protection Act.

(a) Objective information

(i) ***Personal profile***: This provides relevant personal and family data of the client and his/her spouse and includes their names, ages, occupations, and number of the dependents and their ages.

This information helps the insurance intermediary to determine the future financial needs of the client's whole family. For example: age of the client may affect the retirement planning decision, job stability may affect the insurance/investment decision, and age of the dependents may lead to future needs in education expenses.

(ii) ***Assets and liabilities profile:*** This shows the property the client owns and also his/her financial obligations. In particular, a current investment portfolio of the client is listed. The difference between the assets and liabilities is the client's net worth.

This information is important because it gives a full picture of what the client actually owns financially. From the assets, the client's risk profile can be estimated. From the liability, the client's insurance needs (e.g. insurance coverage for mortgage) may be identified. From the net worth, the client's affordability for investment will also be known.

(iii) ***Cash flow statement:*** This includes incomes and expenses of the client, i.e. the sources and uses of funds of the client. This statement helps the insurance intermediary to understand the net cash flow of the client.

From the incomes, the insurance intermediary can estimate thelevel of protection the client will require. From the expendituresand net cash flow, he/she can also get to know whether the client is already investing regularly and the amount he/she can afford to invest.

(iv) ***Present insurance coverage***: This shows the client's existing financial protection by means of insurance products in relation to life, disability, and sickness and by means of annuity, pension, and retirement scheme at retirement.

This information helps the insurance intermediary to determine whether additional amount of insurance might be required by the client.

(b) Subjective information

This covers personal and financial goals, needs and priorities of the client and his/her spouse:

- their short/medium/long-term investment objectives;
- their values, attitudes and expectations;

- the level of knowledge about financial matters; and
- the risk tolerance level.

The above two types of information allow the insurance intermediary to analyze and evaluate the client's financial status and determine the client's family need, retirement need, last expense, estate need etc. With these, the insurance intermediary can recommend to the client the most appropriate life insurance products which can meet the client's specific goals and needs, commensurate with client's values, temperament and risk tolerance.

Finally, insurance intermediaries are advised to re-visit sections **2.1** and **2.2** for a better understanding of the topics on investment motivations, investment risks, risk-return tradeoff, risk reduction techniques, investment considerations, investment objective, risk tolerance, and investment constraints so as to better understand the client's possible investment/insurance choices and decision.

3.13.2 Information to be communicated in Sales Process

Several pieces of important information which should be clearly communicated to clients in the sales of investment-linked life insurance policies are:

- Investment time frame;
- Principal brochure and illustration document;
- Product risk;
- Product features and benefits
- Government stamp duty; and
- Fees and charges.

(a) Investment Time Frame

Investment-linked policies should not be used as speculative investment products. Like most insurance products, it is suitable as an investment vehicle only if the policyholder has a long-term investment horizon which is normally more than five years.

The insurance intermediary should also point out to prospective clients that since the fees and charges of an investment-linked insurance policy are heavilystacked at the beginning of the term, early redemption will be subject to very high encashment charges due to the deduction of fees and charges to cover the expenses of the insurance company as well as the load charges of the underlying investments.

(b) Principal Brochure and Illustration Document

As the policyholder of an investment-linked insurance policy bears the immediate consequences of the investment experience of the fund, the insurance intermediary is obligated to render efficient service to the prospective clients by presenting, for the purpose of proper selection, a detailed and correct explanation of the principal brochure and the illustration document.

(c) Product Risk

In investment terms, risk is defined as the uncertainty associated with the end of period value of investment. As a general rule, assets that produce higher prospective rates of return are generally more volatile in nature or in other words, carry higher risks. Some of the key investment considerations were described in section **2.2.**

It is appropriate for the insurance intermediary to point out that the historic performance of an investment fund is not indicative of future performance.

(d) Product Features and Benefits

Investment-linked policies possess some powerful features, such as potential higher returns and flexible premium payments. Since product features and the comparison to traditional life products have already been covered in the previous sections, they will not be repeated here.

(e) Fees and Charges

In addition to the standard insurance charges, investment-linked policies may attract some additional fees and charges as a result of the investment into the underlying funds (please refer to section **3.3.2**). It is always a good practice for the insurance intermediaries to explicitly explain the relevant fees and charges to the customers in order to protect both parties.

3.13.3 Principal Brochure

Principal Brochure (if any) should be given to all Investment-linked insurance policy schemeparticipants before they submit the formal application for the policy.

This principal brochure, preferably in one single document, should contain the following necessary information so that prospective participants will be able to make an informed judgment of the scheme / investment options available under the investment-linked insurance policy and in particular should contain the following:

(a) Name and Type of Scheme

The name and description of the scheme must not be misleading to potential scheme participants and should be an accurate reflection of the type of scheme and its objectives.

(b) Parties Involved

The names and registered addresses of all parties involved in the operation of the scheme with a brief description of the applicant company.

(c) Investment Returns

Details of how the investment return of the scheme is determined. Except where the scheme's investment returns are subject to a non-variable guarantee, a warning should be stated to the effect that investment involves risks.

If the nature of the investment policy so dictates, a warning should be given that investment in the scheme or fund linked to a scheme is subjectto abnormal risks, together with a description of the risks involved.

(d) Fees and Charges

Explanations of fees and charges may be abbreviated, but should be clearly identified to include:

(i) the level of all fees and charges payable by a scheme participant, including all charges levied on subscription, redemption and switching;

(ii) the level of all fees and charges payable by the scheme or a fund linked to the scheme; and

(iii) details of whether charges are subject to change and the relevant notice period.

A summary of all fees and charges in tabular form should be provided to give scheme participants an overview of the fees structure. Where complex calculations are required to disclose fees and charges, illustrative examples should be given for clarity.

(e) Investment Objectives and Restrictions

A summary of investment objective of the scheme or fund(s) linked to a scheme including, where applicable:

(i) the types of intended investments, and their relative proportions in the portfolio;

(ii) the geographical distribution of the intended investments;

(iii) the investment and borrowing restrictions; and

(iv) if the nature of the investment policy so dictates, a warning that investment in the scheme is subject to abnormal risks, and a description of the risks involved.

(f) Borrowing Powers

The circumstances under which the scheme or fund(s) linked to a scheme may have outstanding borrowings and the purpose for which such outstanding borrowings were incurred.

(g) Summary of Provisions in Constitutive Documents

A summary of the provisions with respect to:
- Valuation of property and pricing;
- Characteristics of premiums/contributions;
- Benefits;
- Maturity and early surrender values; and
- Conditions of termination.

(h) Application and Surrender Procedures

A summary of procedures for application and surrender.

(i) Cooling-off Period

A summary of the provisions with respect to the cooling-off period (please refer to section **3.13.4**).

(j) Governing Law

The governing law of the scheme should be disclosed and an acknowledgment that the parties involved have the right to bring legal action in a Macao court as well as in any court elsewhere which has a relevant connection with the scheme.

(k) Taxation

Where the likely tax benefits to be enjoyed by scheme participants are described, the principal brochure should also briefly explain the applicant company's understanding of the tax implications for Macao scheme participants based on expert advice received by the applicant company. Scheme participants should also be advised to seek professional advice regarding their own particular tax circumstances.

(l) Date of Publication of the Principal Brochure

All facts and figures in the principal brochure should be as reasonably up to date as possible.

(m) Responsibility Statement

A statement that the applicant company accepts responsibility for the accuracy of the information contained in the brochure.

(n) Authorization Statement

If a scheme is described as having been authorized by the AMCM in Macao and the SFC in Hong Kong, it must be stated that authorizationdoes not imply official approval or recommendation.

For full details of **"Guidelines on selling of investment-linked assurance scheme products" (Class C)**, please refer to AMCM's website. （https://www.amcm.gov.mo/zh/insurance-sector/rules-and-guidelines/notices-in-force-from-amcm）

3.13.4 Cooling-off Period

One of the popular conceptions, and certainly a popular fear in the general public, is that life insurance intermediaries may be too assertive, even aggressive, in their selling. The perceived result from this could be that a person might be pressurized into purchasing a life insurance policy that they do not really want, or cannot really afford. For full details of **"*Cooling-off Rights for Purchasers of Life Insurance Policies*"**, please refer to AMCM's website. (https://www.amcm.gov.mo/zh/insurance-sector/rules-and-guidelines/notices-in-force-from-amcm)

To counteract this perceived possibility, as early as 1 July 2003 the AMCM introduced the "Cooling-off Rights" for policyholders.. The "Cooling-off Rights" provides policyholders with the time to reconsider their decision to purchase a life insurance product which is a long-term commitment. During that period, if the policyholders wish to change their mind, they will be able to serve a written notice to cancel the policy for a refund of the paid premium, if any.

According to ***"Cooling-off Rights for Purchasers of Life Insurance Policies"***, policyholders will be able to receive, within nine days after the policy issue date, a full set of the policy documents or a notice informing them of the availability of the policy and the expiry date of the Cooling-off period, so that they can have sufficient time to peruse the policy documents and make up their mind.

Under this mechanism, the Cooling-off Period is 21 (twenty one) days after the delivery of the policy or issue of a Notice to the policyholder or the policyholder's representative, whichever is the earlier. Where the right is exercised by the policyholder/applicant within the defined time period, the whole contract is cancelled and any premium paid is refunded subject to a ***"Market Value Adjustment"*** (MVA).

Any such MVA must be calculated solely with reference to the loss the insurer might suffer in realizing the value of any assets acquired through investment of the premiums made under the life policy. It shall therefore not include any allowance for expenses or commissions in connection with the issuance of the contract.

In the case of an investment-linked insurance policy, the insurer's right to apply a MVA must be disclosed in the product documents and the basis of calculation must be available for disclosure to the potential policyholder prior to the completion of the application form.

Notwithstanding the provisions stipulated in preceding paragraphs above, insurance companies may deduct from the premiums to be refunded an amount equivalent to the direct costs incurred in underwriting the application, including, but not limited to, medical examination and investigation fees.

Furthermore, life insurance companies are advised to:

(a) specify in their intermediaries training materials and internal guidelines that insurance intermediaries must:

    (i) inform prospective policyholders of their Cooling-off rights and the expiry date of the Cooling-off period when policyholders sign their policy application forms; and
    (ii) make all reasonable endeavors to deliver policies to the policyholders within a period of time as stipulated after the policies are issued if they are vested with the obligation to deliver policies on behalf of the companies.

(b) devise internal control measures which will ensure the Cooling-off period will start with reasonable time after the policy is issued;

    and

(c) maintain records in respect of policy delivery and complaints or disputes for cases where clients seek refunds outside the defined period but refused by the company and to provide these records to the AMCM upon request.

The insurance application must include a "Cooling-off Rights" announcement, stating that the policyholder has the right to cancel the policy, and the insurance intermediary responsible for selling the policy must clearly explain to the policyholder that he/she has the right to cancel the policy. When the policy is issued, the announcement of "Cooling-off Rights" must be prominent to remind the policyholder of the expiry of the cooling-off period. For sample of announcement of "Cooling-off Rights", please refer to Guidelines on "Cooling-off Rights" published on AMCM's website.

3.13.5 Customer Protection Declaration

AMCM published the Notice No. 012/2001-AMCM ***"Establishment of Customer Protection Declaration for Life Insurance"*** (amended by the Notice No. 020/2003-AMCM) became effective on 1 November 2001. It specified that a ***"Customer Protection Declaration"*** form must be completed before the policyholder agrees or makes a decision in relation to the purchase of a new life insurance, in replacement of an existing arrangement. It is designed to permit the applicants/proposers to obtain a complete understanding of the implications resulting from replacements (internal or external) of life insurance contracts. For full details of **"*Customer Protection Declaration*"** form, please refer to AMCM's website. (https://www.amcm.gov.mo/zh/insurance-sector/rules-and-guidelines/notices-in-force-from-amcm)

This serves as a record that the policyholder has been informed of the real or potential disadvantages of the recommended replacement or has been given an explanation, as to why there is no disadvantage. On the other hand, the agent/ broker may be protected in the event of a subsequent accusation of malpractice as there is evidence that the policyholder has been advised accordingly.

The original of the Customer Protection Declaration form shall be kept by the selling office and a copy must be issued to:

(a) the policyholder together with the policy; and
(b) the insurer of the life insurance policy replaced within 7 business days of the issue date of the new policy.

3.14 ETHICS

This is important for insurance intermediaries regardless of insurance products being sold.

In order to reinforce the level of ethics and conduct of insurance intermediaries and their internal control, as well as to clearly define the internal control mechanisms that should be implemented by insurers relating to their product distribution, AMCM issued the "Regulations on the Conduct of Insurance Intermediary Business" stipulating the principle requirements related to the conduct of insurance intermediary. All authorised insurance intermediaries and insurers conducting business through insurance intermediary distribution channels must comply with the Requirements. At the same time, AMCM also issued "Guidelines on the Conduct of Insurance Agency Business" and "Guidelines on the Conduct of Insurance Brokerage Business" by means of circulars to set out the expected standards for compliance with the Guidelines. For full details of conduct requirements, please refer to AMCM's website.
(https://www.amcm.gov.mo/zh/insurance-sector/rules-and-guidelines/notices-in-force-from-amcm)

Insurance companies and clients place their trust in their insurance intermediaries. Unethical practices will tarnish the reputation of the company one represents as well as collectively tarnish the professionalism and reputation of the Macao insurance industry. It should be noted that the AMCM handles public complaints against agents in Macao. Among the complaints handled, there were forgery of documents or clients' signatures, misrepresentation of clients' requests and failure to properly explain policy terms. Listed below are several common unprofessional practices that should be avoided:

Misrepresentation is the practice where an insurance intermediary/licensed person deliberately makes misleading statements to induce a prospect to purchase insurance. For example, claiming that the investment return is guaranteed when it is not etc.

Twisting is the practice where an insurance intermediary makes misleading statements, non-disclosure, misrepresentations and incomplete comparisons to induce an insured to replace existing life insurance with other life insurance resulting in a disadvantage to the insured.

Rebating is the practice where an insurance intermediary offers a rebate of his/her commission to entice a prospect to purchase a policy. Since a client should evaluate the risks and benefits of each insurance product on its own merit, rebating may prevent him/ herfrom making the appropriate decision.

Fraud is the practice where an insurance intermediary/licensed person deliberately makes false statements and claims, or concealing important information with the intention to

deceive or cheat. For example, the intermediary deliberately conceals information concerning the current health condition of the client.

3.15 SALES ILLUSTRATION

AMCM has produced guidelines for sales illustrations for investment-linked policies. A sample of the document is reproduced in Appendix B. Some of the more important features for sales illustrations are summarized below:

3.15.1 Linked Policy Sales Illustration

(a) ***Illustration Document***: The insurance company, in conjunction with each proposed investment by each prospective scheme participant, must prepare a personalised illustration document (rather than a standard illustration for all customers), which should be provided to him for review and signature prior to signing of the application form.

(b) ***Minimum Requirements:*** for the information to be included in the illustration document are:

(i) ***Surrender values***: The insurance company is required to illustrate the projected surrender values in the event that the policy is redeemed at the end of each of the first 5 years of the contract, and for every fifth year thereafter until maturity or the end of the policy whichever is applicable, after deduction of all relevant charges. In a similar 4/46 manner, the insurance company should also illustrate the projected death benefits in the event that the life insured dies on those alternative dates without the policy being redeemed.

The projected surrender values and death benefits should be based on either 4 different assumed rates of return of 0%, 3%, 6% and 9% per annum respectively (Version 1 Template) or 3 different assumed rates of return of 0%, 3% and 6% per annum respectively (Version 2 Template). For both options, other than the 0% assumed rate of return, all rates of return are maximum rates so that insurers may choose to illustrate lower rates. The illustration should be prepared so that it includes all policy level charges but not fund management charges levied by fund managers.

(ii) ***Prescribed statements:*** The following statements should appear inthe Illustration Document as shown in **Appendix B**:

"THE ASSUMED RATES USED BELOW ARE FOR ILLUSTRATIVE PURPOSES. THEY ARE NEITHER GUARANTEED NOR BASED ON PAST PERFORMANCE. THE ACTUAL RETURN MAY BE DIFFERENT!

IMPORTANT:
THIS IS A SUMMARY ILLUSTRATION OF THE SURRENDER VALUES AND DEATH BENEFITS (SHOWN ON THE

FOLLOWING PAGE) OF [Name of Product]. IT IS INTENDED TO SHOW THE IMPACT OF FEES AND CHARGES ON SURRENDER VALUES AND DEATH BENEFITS BASED ON THE ASSUMPTIONS STATED BELOW AND IN NO WAY AFFECTS THE TERMS OF CONDITIONS STATED IN THE POLICY DOCUMENT."

The following statements should be clearly disclosed before the investor's signature:

"Warning: You should only invest in this product if you intend to pay the premium for the whole of your chosen premium payment term. Should you terminate this product early or cease paying premiums early, you may suffer a significant loss.

I confirm having read and understood the information provided in this illustration and received the principal brochure."

3.16 POLICY ADMINISTRATION AND STATEMENT TO POLICYHOLDER

Similar to the conventional life insurance policies, policy administrative activities in relation to investment-linked policies such as policy issuance, correspondence, documentation, premium collection, benefit administration and policy changes have to be performed by the insurance company.

Given that different policyholders may have varying insurance and investment needs, the insurance company will, in response to each application, issue a unique policy document for each policyholder which contains all the binding terms and conditions of his/her participation on the basis of the information submitted in his/her application form.

3.16.1 Policy Issuance

Once the underwriting process is completed and cover is approved, the policy can be prepared and then delivered to the policyholder. The important fact worth mentioning is that a policy cannot be cancelled or amended after its issuance without the agreement of the policyholder. Issuing and delivering the policy in some respects may be looked upon as the point of no return for the insurance company. Careful policy checking and confirmation are therefore needed before this happens.

3.16.2 Policy Delivery

This may be considered with policy issuance as the two are very closely connected. Using modern technology, policy documents can be produced with great speedand accuracy. The in-house system should create the policyholder's records and verify whether the first premium has been received. Therefore, only variations affecting the particular policyholder will alter the routine format. All of these can be dealt with by an automated system.

3.16.3 Policy Changes

Similar to other conventional life insurance policies, the policyholder of investment-linked insurance policy can request for changes to the policy. These changes include non-financial changes such as:

- change of beneficiary;
- assignment of the policy; and
- change of address/personal particulars;

or financial changes such as:

- reinstatement;
- change of frequency of premium payment;
- policy loan; and
- surrender.

For policyholders of investment-linked policies, they can enjoy the additionalpolicy services which are the unique features typically not available for traditional life insurance policies such as:

- change of premium amount;
- change of sum assured;
- top-up application;
- withdrawal (partial surrender);
- fund switching; and
- premium holidays.

3.16.4 Information to Policyholders

An insurance company typically provides two reports to each investment-linked insurance policyholder. One is on the performance and value of his/her policy ("policy statement"). The other is on the performance of the investment-linked fund ("fund performance report").

In order to be able to carry out the administration of any investment-linked business, the use of computer is effectively mandatory. This flexible insurance product requiring a large degree of calculation and record keeping needs a powerful and flexible computer system. Besides the standard functions of any insurance administration system, the system has to handle other issues such as dealing with unit fund, allocations of units as a result of premiums received, the payment of the various types of charges (insurance charges and investment charges) by cancellation of units (please refer to section 3.6), varying allocation rates and so on.

3.16.5 Policy Statement

The policy statement is prepared at least annually, within 30 days after the policy anniversary. Instead of basing on the policy anniversary, the insurance company may choose to prepare the statements as of a specified date in the policy year, such as December 31 of each calendar year. The statement date should be consistent from year to year.

The purpose of the policy statement is to provide the policyholder with a summary of the transactions that occurred during the statement period, and the values of his/her policy as of the statement date. As a minimum, the statement normally includes the following information:

1. Number and value of units held at the beginning of the period; bought during the period; sold during the period; and held at the end of the period;
2. Charges levied during the period;
3. Premiums received during the period;
4. The level of death benefit as of the statement date;
5. The net cash surrender value as of the statement date; and
6. The amount of outstanding loans, if any, as of the statement date.

3.16.6 Fund Performance Report

The insurance companies will also prepare their fund performance reports annually. The purpose of the fund performance report is to summarize the performance of the fund during the period and to highlight any changes in the investment policy. As a common practice, most of them include the following information:

1. A summary of the audited financial statement of the fund;
2. A comparison of the net investment return of the fund for the year with the investment returns during the preceding five or more years if available;
3. A list of investments held by the fund as of the reporting date;
4. Any charges levied against the fund during the year; and
5. A statement of any change in the investment objective and orientation of the fund, any change in investment restrictions or any change in the fund management since the last report.

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Representative Examination Questions

Multiple-Choice Questions

1. Investment-linked business was first introduced in:

   (a) the UK;
   (b) the US;
   (c) Canada;
   (d) Australia.

   [Answer may be found in **3.1**]

2. Which of the following is one of the main characteristics of an investment-linked insurance policy?

   (a) it is used solely for investment purposes;
   (b) its cash value is usually the value of units allocated to the policy calculated at the prevailing bid price;
   (c) it has a guaranteed maturity value;
   (d) it is intended for short-term speculation purpose.

   [Answer may be found in **3.2**]

3. Which one of the following funds comprises a higher proportion of equity and a lower proportion of fixed income instruments?

   (a) money market fund;
   (b) bond fund;
   (c) balanced fund;
   (d) growth fund.

   [Answer may be found in **3.8**]

4. Which of the following is one of the disadvantages of an index fund?

   (a) higher risk;
   (b) higher management fee;
   (c) cannot outperform the market;
   (d) risk of company failure.

   [Answer may be found in **3.8.2**]

[If still required, the answers may be found at the end of the Study Notes.]

CHAPTER 4
Regulatory Framework In Macao

The ***"Macau Insurance Ordinance"*** (MIO) and the ***"Insurance Agents and Brokers Ordinance"*** (ABO) prescribe, inter alia, the regulatory framework for insurers, reinsurers and insurance intermediaries in Macao. Monetary Authority of Macao ("AMCM") has been empowered to administer the MIO and ABO.

An insurance company intending to underwrite investment-linked insurance policies is required to be authorised by the AMCM under the MIO to carry on Class C of life insurance business. An insurance intermediary intending to sell investment-linked policies should be duly authorised by/registered with the AMCM under the ABO.

On the other hand, investment-linked insurance product are required by law to be filed to AMCM before they can be offered to the public. However, it must be stressed that acceptance of filing by AMCM is not an endorsement of an investment product.

4.1 INSURANCE LEGISLATION AND GUIDELINES

4.1.1 Macau Insurance Ordinance (MIO) and the Insurance Agents and Brokers Ordinance (ABO)

Both the MIO and the ABO have been dealt with in some depth in ***"Principles and Practice of Insurance"*** and we will not repeat the details here. However, by way of reminder, the following important regulatory aspects should be noted:

It is recalled that the intentions of the MIO and of the ABO are to:

1. regulate the carrying on of insurance business;
2. regulate insurance intermediaries;
3. provide for the appointment of AMCM as the regulator of the insurance sector;
4. confer powers of authorisation and intervention on the AMCM inrespect of insurers, reinsurers and insurance intermediaries;
5. require insurers, reinsurers and insurance intermediaries to furnish financial statementsand other information to the AMCM; and
6. provide for matters incidental thereto or connected therewith.

The MIO has certain strict requirements regarding insurance companies, which include reference to:

1. authorisation of insurers;
2. capital requirements;
3. solvency margin requirements;
4. "fit and proper" directors or controllers; and
5. "adequate" reinsurance.

These are all requirements that try to ensure the economic and social viability of insurance companies, which in the broader sense must be related to customer service.

Under Article 3 of the MIO, any company intending to carry on any class of insurance or reinsurance business in Macao may apply to the AMCM for authorisation. Article 19 provides that in the appraisal of the petition for authorisation of an insurer, one of the important factors to be taken into account shall relate to integrity, qualification and professional experience of the members of the administrative and supervisory bodies, persons who effectively manage the insurer. In addition, the insurer or reinsure should have appropriate corporate governance structure, risk management and internal control system, business outline and sound financial plan. The insurer or reinsurer must be able to meet the legal, financial, technical and management requirements.

The ABO ordinance was approved by Decree-law Nº 38/89/M of 5th June 1989 and subsequently amended by Administrative Order Nº 27/2001 of 28 June 2001 and Nº 14/2003 of 6 May 2003. For full details, please refer to the Ordinance.

4.1.2 AMCM Guidance Notices

It is of primary importance that an insurance intermediary conducts business at all times in good faith and with integrity. In order to clarify its intention to exercise its powers and fulfill its responsibilities, the AMCM has issued the following Guidance Notices to help both insurers and insurance intermediaries comply with the ABO.

In order to protect the insuring public against potential losses arising from misrepresentation or forgery, insurance intermediaries must not request their prospective customers and/or clients to sign blank forms or sign any documents relating to the policy before they have been duly completed and any alteration should be initialed by the customer.

It is an insurance intermediary's duty to present each policy with complete honesty and objectivity. In the case where the client is already a policyholder, this means that full and fair disclosure of all facts regarding both the new coverage and the existing insurance is necessary. Policyholders should be made fully aware of the estimated cost of replacing an existing policy.

For the purpose of protecting the interests of prospective customers of Investment-Linked Assurance Scheme (Class C) products, it is necessary to set the regulatory requirements to ensure that customers are treated fairly, including the suitability assessment of the prospective customers has to be carried out and the product disclosure has to be adequate for them prior to purchasing the product.

To prevent insurance intermediaries from misinforming or misleading clients into changing existing individual life insurances in a way which at the time of the change creates a real or potential disadvantage to the client, AMCM issued guidelines, which will be updated from time to time, on life insurance policy replacement and customer protection. Principals must establish control procedures to monitor insurance intermediaries' compliance with the Notice.

For details of Ordinance and guidelines, please visit AMMC's website (https://www.amcm.gov.mo/zh/insurance-sector/rules-and-guidelines/notices-in-force-from-amcm).

4.2 OTHER RELEVANT LEGISLATION

4.2.1 Prevention of Money Laundering and Terrorist Financing

Macao is a member of the Asia Pacific Group ("APG") which is an associate member of the Financial Action Task Force ("FATF") on Money Laundering, an international organization committed to combating money laundering and terrorist financing. As such, Macao has participated regularly in the meetings organized by a similar entity at the regional level, as it is a member of the Asia Pacific Group on Money Laundering. In this context,the Insurance Supervision Department of the Monetary Authority of Macao ("AMCM") has provided general guidance for the insurance industry to institute necessary measures for the prevention and combating of money laundering and terrorist financing in Macao. Based on the applicable legislation in force and in line with international practice, the AMCM issued the guidelines specifically for the insurance sector in 2006, and make necessary revision from time to time.

"Guidelines on Prevention and Combating of Money Laundering and Financing of Terrorism in Insurance" set out the principles and practices that should be adopted by insurers and insurance intermediaries. For details of Ordinance and guidelines, please visit AMMC's website (https://www.amcm.gov.mo/zh/insurance-sector/rules-and-guidelines/notices-in-force-from-amcm).

Some of the major aspects have been outlined below.

(a) Money Laundering and Insurance

(i) Most common form:
1. Unit-linked or non unit-linked single premium contracts;
2. Purchased annuities;
3. Lump sum top-ups to an existing life contract; and
4. Lump sum contributions to personal pension contracts.

(ii) Stages of money laundering: there are three regularly used stages which should alert insurers to potential criminal activity:

1. **Placement:** the physical disposal of cash proceeds derived from illegal activity;
2. **Layering:** separating illicit proceeds from their source by creating complex layers of financial transactions designed to disguise the source of money, subvert the audit trail and provide anonymity; and
3. **Integration:** creating the impression of apparent legitimacy to criminally derived wealth. If the layering process has succeeded, integration schemes place the laundered proceeds back into the economy in such a way that they re-enter the financial system appearing to be normal business funds.

(b) Legislation on Money Laundering and Terrorist Financing in Macao

(i) The current legislative framework devoted to anti-money laundering and combating of terrorist financing came into force in April 2006. The "Law on Prevention and Suppression of Money Laundering Crime" (Law No. 2/2006, of 23 March) and "Law on Prevention and Suppression of Terrorism Crimes" (Law No. 3/2006, of 30 March) defined respectively the types of money-laundering crimes and crimes associated with terrorism and terrorist activities (including the specific case of financing of terrorism) and by establishing a set of preventive measures that have to be followed for the prevention and combating of the said illicit activities. Decree Law No. 2/2006 and 3/2006 have been revised by Decree Law no. 3/2017. These preventive measures were subsequently concretised with regard to their specific content and scope of subjective application (that is, indicating which entities are required to comply with the said preventive measures) through Administrative Regulation No. 7/2006, of 7 April. Administrative Regulation No. 7/2006 has been revised by Administrative Regulation No. 17/2017.

(ii) Among the preventive measures in the fight against money laundering and financing of terrorism activities, the said laws lay down the obligations of various economic operators to report to the Financial Intelligence Office (GIF) within two working days after detection of such operations involving conversion, transfer or dissimulation of illicit properties or proceeds.

(iii) An important innovation introduced by Article 5 of the Administrative Regulation No. 7/2006 relates to the obligation to refuse the carrying out of the transactions on the part of the operators (insurance institutions and insurance intermediaries) whenever it is not possible to obtain the necessary client identification and transaction details.

(iv) Failure to comply with the above obligation is punishable with a fine of from MOP10,000.00 to MOP500,000.00 for an individual, or a fine of from MOP100,000.00 to MOP5,000,000.00 for a corporate entity, pursuant to the terms of Article 7-B of the Decree Law no. 2/2006, for non-compliance of duties mentioned in Article 5-A, Article 5-B and Article 7, which constitutes administrative offence.

(v) Similarly, supervisory authorities are required to inform immediately the Public Prosecutor's Office all cases of money laundering or financing of terrorism which have come to their knowledge in the course of their supervisory duties. They are also empowered to investigate cases of non-compliance with the reporting requirement and commence appropriate administrative infringement proceedings against entities under their supervision.

(vi) Article 3 of Law No. 2/2006 and Article 4 of Law No. 3/2006 make it a criminal offence to knowingly process or assist in the processing of illicit proceeds in order to disguise their illegal origin, as well as promote, join or support terrorist group, organization or association.

(vii) The maximum penalty applicable is a prison term up to 8 years in the

case of money laundering or up to a maximum of 20 years in the case of crimes associated with terrorism and fine of up to 1,000 days or judicial liquidation when the crime is committed by a corporate entity.

(c) Procedures required under the current "Guidelines on Prevention and Combating of Money Laundering and Financing of Terrorism in Insurance" (hereinafter called the "Guidelines")

(i) **Customer Identification:** proof of customers' identity must be given and customer due diligence must be performed.

(ii) **Record keeping:** Insurance institutions should maintain, for at least five years after the business relationship has ended, all necessary records on transactions including name, address, the nature and date of the transaction, the type and amount of currency involved, the type and identifying number of any account involved in the transaction, the copies of official identification documents, the account files and business correspondence, and the results of any analysis undertaken.

(iii) S**uspicious transactions:** systems should be in place to identify and report suspicious transactions, once suspicious transactions identified, institutions must report to the Financial Intelligence Office.

(iv) **Training:** adequate measures should be taken to ensure that staff are fully aware of their responsibilities, meanwhile, ongoing training should be provided to employees and intermediaries to ensure that they are kept informed of information on current money laundering and financing of terrorism techniques, methods and trends.

(v) **Compliance with Law:** institutions should ensure that business is conducted in conformity with high ethical standards and that laws and regulations pertaining to financial transactions are adhered to.

(vi) **Co-operation with Law Enforcement Authorities:** insurance institutions should co-operate fully with law enforcement authorities to the extent permitted by law or contractual obligations relating to customer confidentiality.

The above Guidelines require that insurers, reinsurers, captives, pension fund managers, and insurance intermediaries have to keep proper remittance transaction records. When they send money to or receive money from their customers outside Macau of MOP20,000 or above, they should record the following particulars regarding the transaction:

1. transaction serial number;
2. currency and amount involved;
3. date and time of receiving instructions from the customers;
4. instruction details;
5. personal particulars of the customers;
6. bank accounts involved; and
7. date and time of delivery and receipt.

- ○ - ○ - ○ -

Representative Examination Question

Multiple-Choice Question

1. Which of the following is not one of the direct intentions of the **"Macau Insurance Ordinance"**?

   (a) to regulate the carrying on of insurance business;
   (b) to regulate the authorization of insurance companies;
   (c) to establish a regulatory control framework for the policy wordings of investment-linked insurance policies;
   (d) to require insurers to furnish financial statements and other information to the AMCM.

[Answer may be found in **4.1.1**]

[*If still required, the answers may be found at the end of the Study Notes.*]

Appendix A

Compound Interest Rate and Yield

Time value of money is the concept that the purchasing power of money in the future (future value) is worth more than that same amount today (present value) due to an assumed interest earning growth or implied inflation expectation.

Present value (PV) = the value of money today
Future value (FV) = the value of the same amount of money compounded at a given rate in the future

Example:

If a group of assets is valued at HKD100 today. Assuming that this value will grow at a rate of 8% per year for two years. You would calculate the future value or the value of the same HKD100 in two years would be as follows:

Year 1 MOP 100 x 1.08 = MOP 108
Year 2 MOP 108 x 1.08 = MOP 116.64

Or you can calculate it as MOP 100 x 1.08^2

The time value of money concept incorporates the compound rate of interest concept. Compounding is the ability of an asset (in above case the MOP 100) to generate interest that is thenadded to previous principal plus interest (MOP 108).

The formal formula is: $PV (1 + r)^n = FV$

PV = Present Value
r = the interest rate per period
n = the number of compounding periods
FV = Future Value

In the example we assumed a policyholder has 3,780.75 units. The unit bid price is MOP12.In

10 years time, MOP12 will be MOP 25.91 assuming a growth rate of 8%.

Calculated as MOP 12 x $(1.08)^{10}$ = MOP 25.91

Thus, in 10 years time, the value of the units will be 3,780.75 x MOP 25.91 = MOP 97,959.23. The return on gross premium using the same MOP50,000 single premium as per the previous example will be calculated as follows:

MOP 50,000$(1 + r)^{10}$ = MOP 97,959.23

Let r be the rate of return on gross premium per annum.

MOP 50,000 x $(1 + r)^{10}$	= MOP 97,959.23
$(1+r)^{10}$	= MOP 97,959.23/MOP50,000
	= 1.9592
(1+r)	= $1.9592^{1/10}$
	= 1.0696
r	= 1.0696-1
	= 0.0696
	= 6.96%

Appendix B

Information to be disclosed in the Illustration Document for ILAS Products (Version 1)

Illustration of Surrender Values and Death Benefits for:

Name of Product: [Name of Product]
Name of Insurance Company: [Name of Insurance Company]
Name of Applicant: [Name of Applicant]

THE ASSUMED RATES USED BELOW ARE FOR ILLUSTRATIVE PURPOSES. THEY ARE NEITHER GUARANTEED NOR BASED ON PAST PERFORMANCE. THE ACTUAL RETURN MAY BE DIFFERENT!

IMPORTANT:

THIS IS A SUMMARY ILLUSTRATION OF THE SURRENDER VALUES AND DEATH BENEFITS (SHOWN ON THE FOLLOWING PAGE) OF [Name of Product]. IT IS INTENDED TO SHOW THE IMPACT OF FEES AND CHARGES ON SURRENDER VALUES AND DEATH BENEFITS BASED ON THE ASSUMPTIONS STATED BELOW AND IN NO WAY AFFECTS THE TERMS OF CONDITIONS STATED IN THE POLICY DOCUMENT.

Contract Term: [Actual Contract Term]
[Premium Payment Term:] [(if different from Actual Contract Term)]
Premium: [Actual Premium amount]
Assumed Rate of Return: Illustrated at 0%, [3%], [6%] and [9%] p.a.[i]

Projected Surrender Values for a [Regular/Single] Premium [Name of Product] with Contributions of [$ XXX] for [XXX Periods]					
Number of Years after Policy Issuance	Total Premium Paid since Start of Policy	Assuming Net Rate of Return of 0% p.a.*	Assuming Net Rate of Return of [3%] p.a.*	Assuming Net Rate of Return of [6%] p.a.*	Assuming Net Rate of Return of [9%] p.a.*
1					
2					
3					
4					
5					
10					
XX					

Declaration

I confirm having read and understood the information provided in this illustration and received the principal brochure.

Signed & dated: _____

[Applicant's Full Name in Printed Form]

Projected Death Benefits for a [Regular/Single] Premium [Name of Product] with Contributions of [$ XXX] for [XXX Periods]					
Number of Years after Policy Issuance	Total Premium Paid since Start of Policy	Assuming Net Rate of Return of 0% p.a.*	Assuming Net Rate of Return of [3%] p.a.*	Assuming Net Rate of Return of [6%] p.a.*	Assuming Net Rate of Return of [9%] p.a.*
1					
2					
3					
4					
5					
10					
XX					

* The Surrender Value and Death Benefit shown in above Summary Illustration have been calculated based on the net rates of return. The net rates of return are net of fund charges levied by fund houses which vary with different funds. Assuming the fund charges are [1.50%] p.a., the gross rates of return on the underlying assets of the funds used in this Summary Illustration are therefore [1.50%] p.a., [4.50%] p.a., [7.5%] p.a. and [10.50%] p.a. respectively. For details of fund charges please refer to the offering documents of the funds. Please note that this illustration might not be relevant should you subsequently switch funds. Please kindly refer to your advisor for further details. If you select a money market fund or a fixed income fund, then the above returns in the growth scenarios would be considered high in many cases and unlikely to be achieved if low interest rate environment persists. You are strongly encouraged to speak to your financial adviser who could provide further information on these funds – both for your initial fund selection and subsequently.

[Under the assumed rate of return at 0% [and b%] p.a., your policy will remain in force up to an attained age of x [and y] of the individual insured respectively. The policy will terminate afterwards. Your policy may also terminate under other adverse investment scenarios. If the actual investment return is below the above assumed rate of return, the policy may terminate earlier than above attained age(s). You could lose all your premiums paid and benefits accrued if any condition of automatic early termination is triggered.]

Warning: ***You should only invest in this product if you intend to pay the premium for the whole of your chosen premium payment term. Should you terminate this product early or cease paying premiums early, you may suffer a significant loss.***

Declaration

I confirm having read and understood the information provided in this illustration and received the principal brochure.

Signed & dated: _____

[Applicant's Full Name in Printed Form]

[1] These assumed rates of return shall comply with the guidelines issued from time to time by the Monetary Authority of Macao.

Information to be disclosed in the Illustration Document for ILAS Products (Version 2)

Illustration of Surrender Values and Death Benefits for:

Name of Product: [Name of Product]
Name of Insurance Company: [Name of Insurance Company]
Name of Applicant: [Name of Applicant]

THE ASSUMED RATES USED BELOW ARE FOR ILLUSTRATIVE PURPOSES. THEY ARE NEITHER GUARANTEED NOR BASED ON PAST PERFORMANCE. THE ACTUAL RETURN MAY BE DIFFERENT!

IMPORTANT:

THIS IS A SUMMARY ILLUSTRATION OF THE SURRENDER VALUES AND DEATH BENEFITS OF [Name of Product]. IT IS INTENDED TO SHOW THE IMPACT OF FEES AND CHARGES ON SURRENDER VALUES AND DEATH BENEFITS BASED ON THE ASSUMPTIONS STATED BELOW AND IN NO WAY AFFECTS THE TERMS OF CONDITIONS STATED IN THE POLICY DOCUMENT.

Contract Term: [Actual Contract Term]
[Premium Payment Term:] [(if different from Actual Contract Term)]
Premium: [Actual Premium amount]
Assumed Rate of Return: Illustrated at 0%, [3%] and [6%] p.a.[ii]

Projected Surrender Values and Death Benefits for a [Regular/Single] Premium [Name of Product] with Contributions of [$ XXX] for [XXX Periods]							
Number of Years after Policy Issuance	Total Premium Paid since Start of Policy	Assuming Net Rate of Return of 0% p.a.*		Assuming Net Rate of Return of [3%] p.a.*		Assuming Net Rate of Return of [6%] p.a.*	
		Surrender Value	Death Benefit	Surrender Value	Death Benefit	Surrender Value	Death Benefit
1							
2							
3							
4							
5							
10							
XX							

* The Surrender Value and Death Benefit shown in above Summary Illustration have been calculated based on the net rates of return. The net rates of return are net of fund charges levied by fund houses which vary with different funds. Assuming the fund charges are [1.50%] p.a., the gross rates of return on the underlying assets of the funds used in this Summary Illustration are therefore [1.50%] p.a., [4.50%] p.a. and [7.50%] p.a. respectively. For details of fund charges please refer to the offering documents of the funds. Please note that this illustration might not be relevant should you subsequently switch funds. Please kindly refer to your advisor for further details. If you select a money market fund or a fixed income fund, then the above returns in the growth scenarios would be considered high in many cases and unlikely to be achieved if low interest rate environment persists. You are strongly encouraged to speak to your financial adviser who could provide further information on these funds – both for your initial fund selection and subsequently.

[Under the assumed rate of return at 0% [and b%] p.a., your policy will remain in force up to an attained age of x [and y] of the individual insured respectively. The policy will <u>terminate</u> afterwards. Your policy may also terminate under other adverse investment scenarios. If the actual investment return is below the above assumed rate of return, the policy may <u>terminate</u> earlier than above attained age(s). You could lose all your premiums paid and benefits accrued if any condition of automatic early termination is triggered.]

Warning: ***You should only invest in this product if you intend to pay the premium for the whole of your chosen premium payment term. Should you terminate this product early or cease paying premiums early, you may suffer a significant loss.***

Declaration

I confirm having read and understood the information provided in this illustration and received the principal brochure.
Signed & dated: _____
[Applicant's Full Name in Printed Form]

[ii] These assumed rates of return shall comply with the guidelines issued from time to time by the Monetary Authority of Macao.

GLOSSARY

Administration Fee A fixed charge per year and/or a percentage of the premium applied to cover the insurance company's administrative expenses, also known as Maintenance Fee. **3.3.1c**

Annuitant The person entitled to receive annuity payments. **2.4.2**

Annuity A series of periodic payments to an annuitant for life or other agreed term or conditions, in return for a single payment (premium) or series of payments. **1.2**

Arbitrage A simultaneous purchase and sale of same or similar assets in different markets in order to capture a risk-free profit caused by mis-pricing. **2.3.5a**

Balanced Fund An investment fund which invests in a combination of stocks and bonds with an objective of achieving both income and capital appreciation while avoiding excessive risk. **2.3.7**

Beneficiary The person nominated to receive the policy benefit in the event of a claim under the policy. **3.16.3**

Bid-offer Spread The difference between the price at which the policyholder canbuy units (the offer price) from the insurance company and that at which the policyholder can sell units (the bid price) to the insurance company. **3.3.2a**

Bonds Debt instruments issued by corporations, municipal governments, countries, and supra-nationals. **2.1.5a**

Bond Fund An investment fund which invests in the bond market with an objective of providing stable income with minimal capital risk **3.8.2a**

Bond Ratings Alphabetical designations assigned by rating agencies to reflect the investment quality of the bond issued. **2.3.2(8)**

Bonus The approximate equivalent of dividends on participating policies, bonuses are reversionary amounts added to the ultimate benefit payable under UK style with-profits policies. **3.11.2**

Call Option A contract which gives the holder the right, but not the obligation, to buy the underlying assets. **2.3.5c**

Callable Bond A bond which is issued with an option for the issuer to "call" (repay prematurely) before the bond's maturity date. **2.3.5c**

Cash Value The amount payable to the policyowner should he/she decide to terminate the policy prematurely. Not all policies have a cash value, e.g. term insurances. It may also be called **Surrender Value**. **1.2**

Certificates of Deposit Negotiable short-term time deposit certificates issued by commercial banks evidencing a deposit of a fixed maturity of less than 1 year. **2.3.1b**

Claims A crucial area for life insurers. The department concerned will be involved in all aspects of claims investigation, processing and settlement. **3.3.1a**

Closed-end Funds Type of fund which has a fixed number of shares, usually listed on a major stock exchange. Unlike open-end funds, closed-end funds do not stand ready to issue and redeem shares on a continuous basis. **2.3.7d**

Commercial Papers Unsecured promissory notes issued by top-rated financial and non-financial companies with maturities of under one year. **2.3.1b**

Company Customization Sales Illustration Documents are allowed to be company customized provided the basic intentions of the document are respected. **3.15.1b**

Company Risk Negative developments such as the loss of market share, the failureof a new product launch will have an adverse effect on a company's financial status andthus its share price. **2.1.3**

Cooling-off Initiative An element in the self-regulation process, initiated by the Hong Kong Federation of Insurers, to grant certain privileges to life insurance policyowners regarding the cancellation of arranged contracts within a permitted period. **3.13.4**

Cooling-off Period A time period which provides policyholders with the time to understand carefully all the information given in relation to a policy and a policyholder may serve a written notice to cancel the policy for a refund of the paid premium less any market value adjustment. **3.13.3i**

Convertible Bonds A type of bond for which the investor may have a right to choose whether to receive the par value or the common stock of the issuer or of someother company. **2.3.2(3)**

Corporate Bonds Medium or long-term debt obligations of private corporations. **2.3.1biii**

Cost of Insurance The charge made by an insurance company to cover the mortality, annuity payment and other benefits and is mainly based on the gender, age,smoking habit, the sum assured, class of risk of the life assured and the death benefit option, also known as **mortality charges**. **3.2**

Coupon Rate The interest rate the bond issuer promises to pay the investor. **2.1.5a**

Custodian An authorized institution appointed by a mutual fund corporation, responsible for taking under its control all the property of the fund in trust for the holders in accordance with the provisions of the constitutive documents such as a Custodian Agreement. **2.3.7eii**

Date of Death An important point to be established with life insurance death claims, especially with term or decreasing term insurances where the validity or amount of the claim may be affected. **3.6.6a**

Death Benefit The basic amount payable under the insurance in respect of the death of the life insured. This may be subject to additional factors, e.g. accidental death benefits etc. **3.1**

Deposit Fund A notional interest bearing fund which invests in short-term money market instruments which provide stable income with minimal capital risk. **3.8**

Default (Credit) Risk The potential inability of a debt issuer to pay interest and repay the principal. **2.1.3**

Deferred Annuity An annuity which has the installment payments begin at some specified time or specified age of the annuitant. **2.4.2aii**

Derivative Warrant A warrant (option) that is issued by a third party, typically an investment house or financial institution. **2.3.5c**

Discount The bond is being sold at a price lower than the par value. **2.3.2ai5**

Distribution Fee An annual fee charged by an investment fund to its investors to pay for selling the fund to new investors and providing services to existing investors. **2.3.7ei3**

Diversification Owning different issues of the same asset class or different asset classes within a portfolio of investment, or investing in different markets, regions or countries in order to reduce the total risk of the portfolio. **2.1.5a**

Dividend Yield The current annualized dividend paid on a share, expressed as a percentage of the current market price of the corporation's common stock. **2.3.3**

Dividends (Equity) Payments made in cash to shareholders. **2.3.2b**

Dividends (Insurance) A payment made in cash for participating policyholders on the divisible surplus of the insurance company. **1.2**

Dollar Cost Averaging By buying fixed dollar amount of an asset at intervals to avoid putting all money in the market at the inappropriate time. **2.1.5**

Domestic Bonds Bonds issued in the domestic currency by corporations domiciled in the same country. **2.3.2aii**

Economic Risk The possible impact of an overall economic slowdown. **2.1.3**

Endowment insurance A life insurance contract which provides for the payment of the face amount at the end of a specified term or upon earlier death. **2.4.1b**

Equity An ownership interest in a corporation. It provides the investor with the opportunity to participate (share) in the long-term growth of a limited company. **2.3.3**

Equity Fund An investment fund which invests in the equity market with an objective of achieving higher long-term capital appreciation. **2.3.7fiii**

Equity Warrant A warrant (option) that is issued by the company issuing the underlying stock. **2.3.5c**

Eurobonds Bonds denominated in US dollars or other currencies and sold to investors outside the country whose currency is used. **2.3.2aii**

Exchange (Currency) Risk A foreign financial investment denominated in a foreign currency may have to be converted into the home currency at a less favourablerate due to foreign exchange rate fluctuation. **2.1.3**

Financial Derivative A financial instrument whose value depends on or is derived from an underlying asset such as stock, bonds, interest rate, foreign currency, commodity, or stock market index. **2.3.5**

Financial Risk The possible loss or reduction of the original sum invested. **2.1.2**

Fit and Proper A common phrase in regulatory instruments, indicating that the individual occupying or wishing to occupy a certain position is suitable and acceptable from a regulatory point of view. **4.1.1**

Fixed Income Securities A group of investment instruments that offer a fixed periodic return. **2.3.2**

Forward Contract An agreement between two parties (buyer and seller) to set a price today for an asset/good that will be delivered on a specified future date. **2.3.5**

Foreign Bonds Bonds issued in the currency of the country by foreign corporations. **2.3.2aii**

Fraud A non-ethical practice where the investment representative/insurance intermediary deliberately makes false statements and claims and intentionally conceals information with the intention to deceive or cheat. **3.14**

Fund of Funds An investment fund which invest in other mutual funds with an objective to carry out diversified professional management, also known as **Unit Portfolio Management Funds**. **3.8.2l**

Fund Management Fee A fee charged by the investment fund manager for their services rendered to manage the fund. It is usually expressed as a specified percentage of the fund's market value and is used to support the insurance company'sinvestment management team. **3.3.2b**

Fund Performance Report A summary of the performance of the fund during the period which highlights any changes in the investment policy. **3.16.4**

Fund Switching Charge The fee charged for the policyowner to amend his/her investment option and allocation from time to time. **3.3.2c**

Futures Contract A standardized forward contract that is traded in an organized market called futures exchange. **2.3.5aiii**

Global Fund An investment fund which invests in stocks or bonds throughout the world. **3.8.2e**

Government Bills Short-term debts issued by the government to finance their expenses. **2.3.1b**

Government Bonds These are financial instruments used by the government to borrow money from the public. **2.3.2ai1b**

Gross Premium The premium in life insurance after taking into account the three rating factors of mortality, interest and expenses. **3.6.1**

Growth Fund An investment fund which invests in growth stocks with an objective of achieving maximum capital appreciation rather than a flow of dividends. **2.3.7**

Guaranteed Fund An investment fund which provides a guarantee of the principal. Some funds may even guarantee a minimum return. **3.8.2k**

Guaranteed Policies These life insurance policies guarantee a fixed rate of return to policyholder in term of sum assured. They are sold on a guaranteed cost basis, meaning that all policy elements (i.e. the premium, the sum assured, and the cash values, if any) are guaranteed and will not vary with the experience of the company, also known as **non-participating/without-profit policies**. **3.11.1**

Hedging The process to eliminate the impact of change in market price on the value or an asset or investment portfolio. **2.3.2aiii**

Illustration Document A document based on two assumed rates of return that demonstrate clearly the projected surrender values over the term of the policy. **3.13.2**

Immediate Annuity An annuity purchased with a single payment, the benefits or installments begin one annuity period (one month or six months) immediately thereafter. **2.4.2ai**

Income Fund An investment fund whose objective is to generate regular income rather than to achieve capital growth. **2.3.7**

Increasing Death Benefit The death benefit will be the value of the units accumulated in the policyholder's account, at the date of death, plus the chosen death cover. **3.4iii**

Index Fund An investment fund with an objective of mirroring specific index performance. **3.3.2b**

Inflation Risk The loss of purchasing power as the return on investment does not match the inflation rate. **2.1.3**

Insurance Agent An agent in an insurance contract, usually representing the insurer and remunerated by commission on the premium paid. **2.3.7**

Insurance Broker A person who carries on the business of negotiating or arranging contracts of insurance in or from Macao as the agent of the policyholder or potential policyholder or advising on matters related to insurance. **4.1.3**

Insurance Charges Fees charged by the insurance companies for the provision of insurance policies to cover the marketing, distribution, administration, and insurance expenses. **3.3**

Macao Insurance Ordinance The primary legislation for the regulatory framework of the insurance industry in Macao. **1.1**

Insurance Intermediaries In Macao, these consist of insurance agents and insurance salesman (usually representing the insurer) and insurance brokers (usually representing the insured). Separate regulatory rules and provisions apply to each group. **4**

Interest Rate (Price) Risk The price fluctuation of certain fixed income investments prior to maturity due to current market interest rate changes. **2.1.3**

Intrinsic Value The value of an option if it were exercised immediately.Alternatively, this can also be explained as the market price of the asset upon which acall option is written less the exercise price of the option. **2.3.2ai6**

Investment To sacrifice present value for future value. **2**

Investment Funds A form of collective investment through which a number of investors who have similar investment objectives combine their money into a large central pool. **2.3.7**

Investment Time Horizon This is the time period within which the investor intends to make the investment. **2.2.2b**

Investment-linked Annuity An annuity whose annuity payment is variable according to the performance of the investment funds. **3.4a**

Investment-linked Insurance Policy An insurance policy with its policy value generally linked to the performance of its underlying investments. **1**

Investment Risk The uncertainty associated with the end of period value of the investment, especially the possible loss or reduction of the original sum invested. **2.1.1**

Law of Fixed Income An inverse relationship between the yield and the price of a bond. **2.3.2ai5**

Level Death Benefit The death benefit will be the higher of the value of units accumulated in the policyholder's account at the date of death or the chosen death cover. **3.4biii**

Linked Long Term Business The business of effecting and carrying out of insurance on human life or contracts to pay annuities on human life where the benefits are wholly or partly to be determined by reference to the value of, or the income from, property of any description or by reference to fluctuations, in, or in an index of, the value or property of any description. **1.1**

Liquidity The ability of an investor to sell the asset quickly without having to make a substantial price concession. **2.3.2ai6**

Liquidity Risk The inability to liquidate (sell) an investment or the need to pay a substantial cost to liquidate. **2.1.3**

Load Charge A commission payable to the sales force which is based on the shares/units it sells. **2.3.7ei**

Low Correlation Having little or no mutual relationship. In the process of diversification, investment is made in assets of little relationship to reduce the overall risk. **2.1.5a**

Management Company An institution, properly licensed or registered to carry on the regulated activities, appointed by an investment fund responsible for investment management within the scope of the constituent documents. **2.3.7b**

Management Fee A fee charged by the management company for the investment and advisory services provided by the professional fund manager. **2.3.7e**

Market Risk The basic demand and supply in the market will affect the price of investment instruments. An investor will suffer a loss if he/she has to sell an asset when the price drops below his/her original purchase price. **2.1.3**

Market Value Adjustment The permitted right of an insurance company under the cooling-off initiative to adjust the refund of premiums, taking into account theloss the insurance company might suffer in realizing the value of any assets acquired through investment of the premiums made under the life policy. **3.13.4**

Misrepresentation A non-ethical practice where an insurance intermediary/ licensed person deliberately makes misleading statements to induce a prospect to purchase insurance. **3.14**

Money Laundering The illegal practice of "cleansing" money obtained illegally by the use of business or financial instruments such as life insurances. Insurers must take great care in trying to detect and eliminate such practices. **4.2.1**

Money Market Instruments Short-term, highly liquid and low-risk debt instruments issued by governments, banks and large non-financial corporations. **2.2.2a**

Mortality Charges See **Cost of Insurance.** **3.3.1a**

Mortality Tables Published statistics on mortality, indicating the expected rate of mortality at given ages. **3.3.1a**

Municipal Bonds Bonds issued by state or local governments to finance their budget. **2.3.2ai1d**

Mutual Fund An investment fund which is set up with the objective of investing in shares of other companies. **2.3.7**

Net Asset Value The market value of a fund calculated on the basis of the market value of the underlying assets in the portfolio after deducting liabilities and accrued expenses. **2.3.7c**

Office Premium The premiums paid by the policyholders to the insurer during the financial year. **3.1**

Open-end Fund An investment fund which stands ready to purchase existing shares/units at a price based on or near the NAV of the underlying investments. **2.3.7d**

Option A contract which gives the holder the right, but not the obligation, to buy or sell a specified amount of an underlying asset at an agreed price within or at a specified time. **2.3.5c**

Par The bond is being sold at the same price as the par value. **2.3.2a2**

Par Value The amount the issuer agrees to repay the bondholder at maturity, also known as **face value**, **maturity value** or **redemption value**. **2.3.2a2**

Partial Withdrawal A facility which allows a policyholder to reduce the cash value in a policy by making withdrawals for a specific minimum amount provided that the remaining balance is sufficient to cover fees and related insurance charges. No penalty or debit interest will be incurred. It is also known as **partial surrender.** **3.6.4**

Participating/Non-Participating Also known as **With-Profits** or **Without-Profits**,the terms indicate whether or not the policies concerned share in the profits of the insurer. If they do, dividends or bonuses are payable. **3.11.1**

Payment Ratio The percentage of a corporation's earnings paid to shareholders in the form of cash dividends, also known as **Payout Ratio**. **2.3.3**

Performance Fee A fee charged by the investment company based on the actual investment gains achieved. **2.3.7eii**

Policy Changes One of the duties of the Policyowner Service Department including such matters as minor amendments of address to significant issues such as change of beneficiary, assignment and change of insurance cover amount. **3.16**

Policy Delivery After policy document preparation, delivery of individual policy documents is normally done by the insurance intermediaries. **3.16.2**

Policy Fee The charge made by an insurance company to cover the distribution, marketing and policy issue expenses of setting up the policy, also known as **Initial Charges.** **3.3.1b**

Policy Issuance The process of preparation, checking and delivery of the policy document. **3.16.1**

Policy Statement A summary of the transactions that occurred during the statement period, and the values of the policy as of the statement date provided to the policyholder. **3.16.4**

Preference Share An ownership interest in a corporation which gives the investor a right to a fixed dividend provided enough profit has been made to cover it, also known as **Preferred Share**. **2.3.2b**

Premium (Bond) The bond is being sold at a price higher than the par value. **2.3.2ai5**

Premium (Option) The sum of money an option buyer pays to the seller for the option. **2.3.5c**

Premium Holiday A facility which allows a policyholder of a regular premium plan to skip premium payments for a period of time provided that the policy value is sufficient to cover the mortality charges and fees. No penalty or debit interest will be incurred. **3.4bi**

Premium Payment The amount payable by the policyowner for the insurance coverage. **3.1**

Price Earning Ratio A corporation's current stock price divided by its past12-month earnings per share, also known as **PE Ratio**. **2.3.3**

Principal Brochure A document which contains the information necessary for prospective scheme participants to be able to make an informed decision on the proposed investment. **3.13.3**

Put option A contract which gives the holder the right, but not the obligation, to sell the underlying asset. **2.3.5c**

Putable Bond A bond which is issued with an option for the holder to "put" (sell back to the issuer prematurely) before the bond's maturity date. **2.3.5c**

Rebating A non-ethical practice where an insurance intermediary offers a rebate of his/her commission to entice a prospect to purchase a policy. **3.14**

Regional/Country Fund An investment fund which invests in a specific region or country. **3.8.2f**

Regular Premium Plan Investment-linked policies that are financed by regular premiums. This is more suitable for individuals who want to build up savings on a regular basis. **3.5**

Reinvestment-rate Risk The inability to reinvest interim cash flows or a mature investment at the same or higher rate of return. **2.1.3**

Retention Ratio The percentage of a corporation's earnings that are not paid to shareholders but instead are retained for future expansion. **2.3.3**

Return on Equity The earnings of a corporation divided by its book value. **2.3.3**

Reversionary Bonus A financial interest which exists now, but whose full enjoyment and privileges of ownership are deferred until some future time of event. **3.11.2**

Risk Tolerance The largest amount of risk that an investor is willing to take for a given increase in the expected return. **2.2.1**

Risk-averse Investor An investor who prefers an investment with less risk to one with more risk if the two investments offer the same expected return, or higher expected return to lower expected return if the two investments have the sameexpected risk. **2.2.1**

Samurai Bonds Japanese Yen bonds issued in Japan by corporations domiciled outside Japan. **2.3.2aii**

Sell Short The sale of a security that is not owned by an investor with an obligation to repay in kind by purchasing the same security in a subsequent transaction. **2.3.5ai**

Single Premium Plan Investment-linked policies that are financed by one single premium. This is more suitable for individuals who have a large capital sum at their disposal. **3.1**

Sovereign (Political) Risk Political instability may cause governments to take actions that are detrimental to the financial interest of financial investment instrumentsin that country. **2.1.3**

Specialty Fund An investment fund which invests in a specific industry or sector with an objective to capitalize on the return potential. **3.8.2g**

Strike Price The pre-agreed price for a call holder to buy the underlying asset or a put holder to sell the underlying asset, also known as **Exercise Price**. **2.3.5c**

Sum Assured The amount payable upon the happening of a claim event as defined in an insurance contract, e.g. upon death. **3.3.1a**

Supra-nationals These are multilateral organizations such as the World Bank, the Asian Development Bank and the International Monetary Fund (IMF). **2.3.2ai**

Surrender Charge This is a charge made by the insurance company when a policyowner surrenders his/her policy through the sale of the investment fund units. **3.3.2d**

Switching A facility which allows a policyholder to make transfer of his/her investment between funds offered or alter their investment portfolios at any time. **3.3.2c**

Term Life Life insurance where the benefit is payable only if the life insured dies during the period (term) specified. Also know as Temporary/Term Insurance. **2.4.1a**

Term to Maturity The number of years to the maturity of the bond. The maturity date is the date the issuer will repay the bondholder. 2.3.2ai4

Top-up A facility which allows a policyowner to pay an additional fixed premium when the premium is due (called a regular top-up) or one-off premium at any time (called a lump sum top-up). 3.3.2e

Top-up Fee This is the charge made by insurance companies when a policyholder chooses to top up his/her investment. **3.3.2e**

Trustee An authorized institution appointed by an investment fund to fulfill the duties imposed on them by the general law of trusts. **2.3.7c**

Twisting A non-ethical practice where an insurance intermediary makes misleading statements, non-disclosure, misrepresentations and incomplete comparisons to induce an insured to replace existing life insurance policies with otherlife insurance policies resulting in disadvantage to the insured. **3.14**

Underwriting The process of assessment and selection of risks for the purposes of insuring the insurance applicants or deciding what insurance terms should apply.It also means the process of guaranteed acceptance of an investment bank when arranging initial public offer for a stock or bond. **3.9c**

Unit Trust An investment vehicle set up under a trust. **1.2**

Unit-linked The UK version of investment-linked insurance policy. **1.1(a)**

Unitized Funds These are specific, separately managed funds, either managed by the insurance company itself or independent fund managers. **1.2**

Universal Life A life insurance contract which is subject to a flexible premium, has an adjustable benefit and accumulated a cash value. **1.1(b)**

Variable Life The US version of investment-linked insurance policy. **1.1(b)**

Variable Universal Life A life insurance contract which combines the premium and face amount flexibility of universal life insurance, adopts its unbundling of the pricing factors with the investment variables characteristics of variable life policies. **1.1(b)**

Volatility The annualized standard deviation of the rates of return of an asset (stock, bond or mutual fund). The term is issued to describe the size and frequency of the fluctuations in price and is an important factor for option pricing. **2.3.3c**

Warrant Fund An investment fund which invests mainly in warrants with an objective of achieving exceptional high return. **3.8**

With-Profits The equivalent term in UK insurance terminology of a participating insurance. **3.11.2**

Without-Profits The equivalent term in UK insurance terminology of anon-participating insurance. **3.11.1**

Whole Life A life insurance contract where the benefit is payable only on death, whenever that occurs, at a level premium rate that does not increase as the insured ages. **2.4.1c**

Yankee Bonds USD bonds issued in the US market by foreign corporations. **2.3.2aii**

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4		(c)	(c)	

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