
UNIT 1 NATURE AND SCOPE OF INVESTMENT DECISIONS

Objectives

- After reading this unit, you should be able to :
- Explain the concept of investment in general
- Distinguish investment and speculation
- Discuss the process involved in investment decisions
- Explain investment environment, alternatives and markets.

Structure

- 1.1 Investment : An Introduction
- 1.2 Nature of Investment Decisions
- 1.3 The investment Decision Process
- 1.4 The Investment Environment
 - 1.4.1 Financial Instruments
 - 1.4.2 Financial Intermediaries
 - 1.4.3 Financial Markets
- 1.5 Summary
- 1.6 Key Words
- 1.7 Self-Assessment Questions/Exercises
- 1.8 Further Readings

1.1 INVESTMENT : AN INTRODUCTION

Individuals like you invest money for various reasons. It could be that :

1. You or your family may be earning more than what is required for monthly expenses and thus would like to keep the money in a safe place and also allow the savings to earn a return during the period.
2. You may not have regular surplus but may get occasional one-time surplus earnings such as annual bonus from your employer or sale of some family property. You would like to keep such money for some time, when you don't require, in some safe place and also allow such savings to earn a return during the period.

We also invest money on education of our children like our parents did. Just as individuals do, organizations too make investments. For example, you might have read news items like Reliance Industries investing Rs. 1000 Cr. for expansion of its petrochemical division.

The above examples underline the following characteristics of an 'investment' decision : **One**, it involves the commitment of funds available with you or that you would be getting in the future. **Two**, the investment leads to acquisition of a plot, house, or shares and debentures. **Three**, the physical or financial assets you have acquired is expected to give certain benefits in the future periods. The benefits may be in the form of regular revenue over a period of time like interest or dividend or sales or appreciation after some point of time as normally happens in the case of investments in land or precious metals.

The investment decisions being studied in this unit as well as the course MS-44, relate to financial assets bulk of which comprise pieces of paper evidencing a claim of the holder (i.e., investor) over the issuer (i.e., user of funds). For example, when you buy shares of, say, Infosys or A.C.C., the share certificate that is handed over to you is a piece of paper



which testifies your ownership of the number of shares stated in the certificate. It represents your financial claim (as a holder of the said shares) over Infosys or A.C.C., (as issuers of the shares). The same can be said of units of UTI or any other mutual fund scheme like the Mastershare or any security like a debenture, a warrant a convertible, etc., of a company. Unlike promoters of companies, several buyers of these securities hold them for limited period and then sell them. The reasons for selling the financial assets could vary from person to person. If an investor needs money for other expenditure like marriage or education, she or he could sell some of the financial assets like shares/ bonds. Similarly, if an investor finds that his expected return for the financial asset is realized, she or he can sell the same and use the money to buy some other securities. It is also possible that some of these high-risk takers speculate in financial securities. Investors of different kinds look out for investments, which can be sold in organized markets with ease and at best obtainable prices. Financial assets, which are tradeable with ease and at best prices in organized markets, are known as 'marketable securities'.

It may be appropriate at this juncture to define the term 'investment' in a general sense. Investment takes place when an investor postpones her/his consumption, which is initially converted into savings and subsequently into investments. By not spending the entire amount of your salary, you are saving a part of your salary income for the future needs. Savings of this kind run into risk of loss of value because of inflation. In order to prevent erosion of value of your savings, the amount saved has to be invested at least by depositing the amount in savings bank account. You have several options if the money you are saving is not required in the near future and the number of options increases further, if you are willing to assume a bit of risk in your investment. Remember without taking risk, it is not possible to expect a higher return. Some of the investment options available to you are time deposit (fixed deposit) of bank, bonds and debenture of financial institutions or companies, mutual funds, futures, options, etc.

It is interesting to observe that all investment decisions arise from a 'trade-off' between current and future consumption. An example would make this idea clear. We can assume an individual who has Rs. 50,000, which he can either spend on current consumption or invest, say, for one year at 11 per cent interest. This person's current consumption (C_0) can range from Rs. zero (when he invests the whole of Rs. 50,000) to Rs. 50,000 (when he does not invest a single rupee).

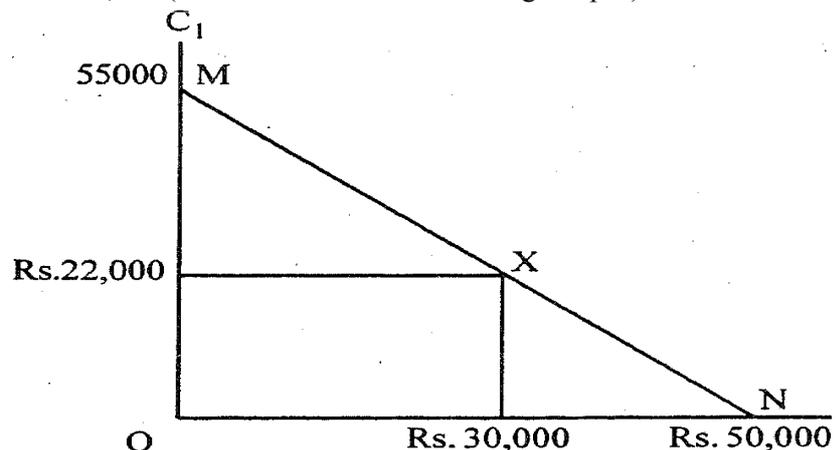


Figure 1.1: Trade-off between present and future consumption

Similarly, his future consumption (C_1) can be as high as Rs. 55,500 (when he invests the whole of Rs. 50,000 at 11 per cent per annum and ends up with a total wealth of Rs. 50,000 + Rs. 5,500 = Rs. 55,500 at the end of the year, Rs. 5,500 being interest earnings on Rs. 50,000 at 11 per cent) to as low as Rs. zero (when he consumes the whole of Rs. 50,000 right now).

In most such cases, individuals would consume a part and invest the rest. Such a situation is called a 'trade-off between current and future possibilities for our hypothetical individual on the trade-off function MN. Our investor is on point 'X' which suggests that he spends Rs. 30,000 today and invests the balance Rs. 20,000 to get a total sum of Rs. 22,000, which includes interest of Rs. 2,000, at 11 per cent after one year.



Having defined 'investment' in terms of 'postponed consumption' we must get ready to answer an inescapable question *viz.*, *why should a person postpone his/her present consumption?* This question acquires added significance because we know that individual generally prefer current consumption to future consumption. And if they are required to invest or postpone current consumption there must be commensurate inducement. This underlines the need for a positive rate of return on all potential investment without which a person would prefer to consume all his income today rather than tomorrow. Such an investment /consumption behaviour is founded on an important concept known as 'time preference for money'. This concept signifies 'a rupee today is worth more than tomorrow'. The 'tomorrow' must promise a larger wealth to give incentive to forego current consumption. *The next natural question is how much the return should be larger to attract investment?*

You will readily notice that a nominal rate of return may well be fully swallowed away by the inflation. For example, if you earn an interest rate (nominal) of 11 per cent for one year on your investment and face the threat of an 11 per cent price rise (inflation) too during that year, where do you stand in terms of purchasing power of your money? What happens in a situation like this is that the 11 per cent nominal return is neutralized by 11 per cent inflation and you remain after one year where you were a year ago. It is, therefore, natural that an investor would be induced to postpone consumption today only if his command over goods and services does not get diluted over time. Thus, if he gets 11 per cent nominal interest and 11 per cent is the rate of inflation, his real rate of return would be zero. In the event of inflation what induces investors to postpone current consumption is the real rate of return and not just the monetary rate of return. There is yet another dimension to the rate of return as an incentive to invest. For example, if a person buys, say, government securities she/he is completely assured of all payments *viz.*, interest and principal. In such cases, a relatively lower rate of return is adequate as an incentive. But if the avenue of investment is a company debenture, the probability of default does exist even if the rate of interest and the repayment schedules are known in advance. The investor here perceives some risk and would insist upon an additional compensation. In other words, the investor requires a risk premium over and above the risk free rate.

This extra reward or risk premium would have to be substantially greater in the case of shares of companies where the dividend rates are not ascertainable in advance and where payment of such dividends and invested sums are not at all assured. What we are trying to underline through these examples is the 'risk' factor which effects the expected rates of return by investors. In all these cases, investors demand a risk premium. It would thus be seen that the investor's required rate of return would be an aggregate of the risk-free real rate, expected rate of inflation, and risk premium.

Investments in securities on average offer adequate return to compensate the risk assumed by the investors. But one has to wait for a longer period to realize such extra return for the additional risk assumed particularly in case of investments in stocks. In other words, if the holding period of an investment is short, then high-risk securities may not offer adequate return to compensate the risk you have assumed. You might have recognized the existence of 'speculators' in the securities markets. They invest in high risk securities for a short period and hence exposed to high level of risk.

Speculators may lose their entire wealth or become rich in a short period of time. How are they different from that of normal investors? We can distinguish the two operators as follows:

- i) The time-horizon of a speculator is short while that of the investor is long.
- ii) The investor expects a 'good' return and a consistent performance over time but the speculator expects abnormal returns earned quickly over short periods.
- iii) The investor generally sticks to his investment, but the speculator makes rapid shifts to greener pastures. He moves from one stock to other for a small profit.
- iv) The investor is risk-averse but the speculator takes greater risks. Often, speculators take risk by entering into margin trading (i.e. use borrowed funds) to increase the volume and his exposure in the market.

If speculation is high-risk game, why do exchanges allow such trading? They essentially provide liquidity for the securities and often match the demand and supply of the market.

For example, positive news on a firm may attract a large demand for the stock. In the absence of any sellers, the price will shoot up. Some speculators may take a different view and willing to sell the stock to meet the excess demand of the market. Similarly, a mutual fund may wants to sell 1 lakhs shares of a company. If there are limited buyers for the stock, the stock price would crash. Again, speculators would buy the stock in anticipation of selling the same at a small profit once the demand for the stock picks up in the market.

Activity-I

- i) A young couple buys a flat for Rs 3 lakh with a 25 per cent down payment and the balance in 100 equal monthly instalments. Would you consider the investment a case of postponed consumption? Why?

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- ii) Distinguish between a speculator and an investor.

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- iii) You can make a visit to the nearest NSE Dealer and interview ten clients. Apply above stated tests to find the number of investors who are investors and those who are speculators. Find the turnover and holding period of the speculators and investors. Don't be surprised if some of the speculators sell the stock within five minutes of its purchase. They are called day-traders in the new computer-based trading system.

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1.2 NATURE OF INVESTMENT DECISIONS

You have seen in Section 1.1 that an individual invests 'postpones consumption' only in response to a rate of return, which must be suitably adjusted for inflation and risk. This basic postulate, in fact, unfolds the nature of investment decisions. Let us explain as follows:

Cash has an opportunity cost and when you decide to invest it you are deprived of this opportunity to earn a return on that cash. Also, when the general price level rises the purchasing power of cash declines - larger the increase in inflation, the greater the depletion in the buying power of cash. This explains the reason why individuals require a 'real rate of return' on their investments. Now, within the large body of investors, some buy government securities or deposit their money in bank accounts that are adequately secured. In contrast, some others prefer to buy, hold, and sell equity shares even when they know that they get exposed to the risk of losing their much more than those investing in government securities. You will find that this latter group of investors is working towards the goal of getting larger returns than the first group and, in the process, does not mind assuming greater risk. Investors, in general, want to earn as large returns as possible subject, of course, to the level of risk they can possibly bear.



The risk factor gets fully manifested in the purchase and sale of financial assets, especially equity shares. It is common knowledge that some investors lose even when the securities markets boom. So there lies the risk.

You may understand risk, as the probability that the actual return on an investment will be different from its expected return. Using this definition of risk, you may classify various investments into risk categories.

Thus, government securities would be seen as risk-free investments because the probability of actual return diverging from expected return is zero. In the case of debentures of a company like TELCO or GRASIM, again the probability of the actual return being different from the expected return would be very little because the chance of the company defaulting on stipulated interest and principal repayments is quite low. You would obviously put equity shares in the category of 'high risk' investment for the simple reason that the actual return has a great chance of differing from the expected return over the holding period of the investor, which may range from one day to a year or more.

Investment decisions are premised on an important assumption that investors are rational and hence prefer certainty to uncertainty. They are risk-averse which implies that they would be unwilling to take risk just for the sake of risk. They would assume risk only if an adequate compensation is forthcoming. And the dictum of 'rationality' combined with the attitude of 'risk aversion' imparts to investments their basic nature. The question to be answered is: how best to enlarge returns with a given level of risk? Or, how best to reduce risk for a given level of return? Obviously, there would be several different levels of risks and different associated expectations of return. The basic investment decision would be a trade-off between risk and return.

Figure 1.2 depicts the risk-return trade-off available to rational investors. The line R_F - M shows the risk-return function i.e., a trade-off between expected return and risk that exists for all investors interested in financial assets. You may notice that the R_F - M line always slopes upward because it is plotted against expected return, which has to increase as risk rises. No rational investor would assume additional risk unless there is extra compensation for it. This is how his expectations are built. This is, however, not the same thing as the actual return always rising in response to increasing risk. The risk-return trade-off is figured on 'expected or anticipated (i.e., ex-ante) return' and not on actual or realized (ex-post) return'. Actual return will also be higher for high-risk securities, if you plot long-term return of these investments. It is relatively easier to show evidence for this in debt instruments. For example, Treasury Bills offers lowest return among the government securities because of their short-term nature. Government bonds with a long-term maturity offer a return higher than treasury bills because they are exposed to interest rate risk. We will discuss more when we cover bond analysis. Corporate bonds offer a return more than government bonds because of default risk. The return ranges from 12% to 18% depending on the credit rating of the bond. The returns of all these securities are less volatile compared to equity return. The long-term return of BSE Sensitive Index is around 18%.

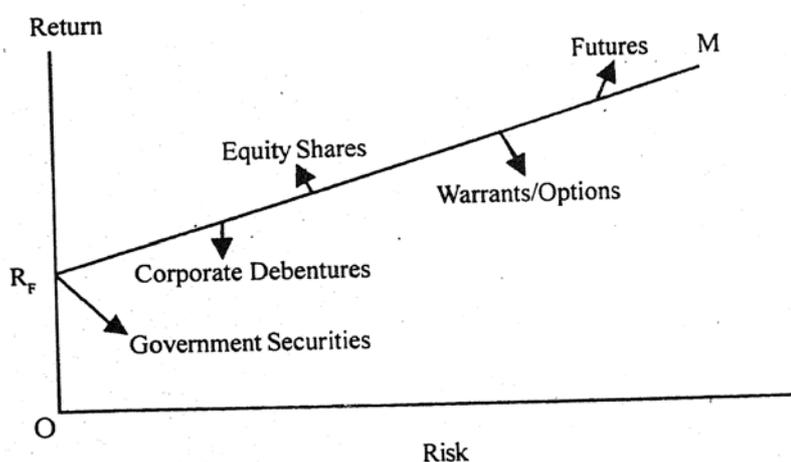


Figure 1.2: The Expected Return-Risk trade-off functions



You may now look at Figure 1.2 to understand the relative positioning of different financial assets on the risk-return map. The point R_F is the expected return on government securities where risk is zero and is recognized as the risk-free rate. As you move on the $R_F M$ line, you find successive points, which show the increase in expected return as risk increase. Thus, equity shares, which carry lot more of risk than government securities and company debentures are plotted higher on the line. Company debentures are less risky than equity because of the mortgages and assurances made available to the investor but more risky than government securities where the default risk is zero because government generally does not fail. They are placed between the two securities viz., government securities and equity shares. Warrants, options and financial futures are other specialized financial assets ranked in order of rising risk. We shall know more about these investments in a latter unit.

An important point deserves attention while interpreting the risk-return trade-off of the type presented in Figure 1.2. It shows a simple fact. Financial securities are of different types and they offer different risk-return combination. The risk and return also move together. Thus, if an investor is not willing to assume any risk, she/he will have to be satisfied with the risk-free rate i.e., R_F by investing the wealth in government securities. There are several options to investors. They can buy some small savings (like NSC, PPF, Indira-Vikas Patra, etc.) or invest the amount in a mutual funds scheme, which specializes in government securities. If you are not happy with 8% or 9% return of government securities, you can move to next security that offers higher return. But there is a cost associated with such higher return. Investors in corporate bonds have to bear additional risk compared to investors of government securities. One of the important sources of additional risk is default risk since companies may fail to honour the interest and principal liability. As you move on the ladder, you can expect a higher return but your risk also increases. Investors need to strike a balance when they allocate their wealth under various investments. If some one invests their entire savings only in government securities or only in high-risk securities like equity or derivatives, it may not yield desired result. Investors need to balance the investments by partly investing in equities and partly in government securities. The proportion of investment can be changed depending on the economic outlook. Allocation of wealth on different securities and periodical revision should be an integral part of your investment strategy. We will discuss more on this strategy in the next section as well as in a separate unit.

1.3 THE INVESTMENT DECISION PROCESS

In the last two sections, we emphasized two important issues namely the need for converting savings into investments and a balanced approach in selection of securities. Investment process gives you a methodology of achieving the above two objectives. A lot of planning is required while investing your hard-earned money in securities. Often investors lose money when they make investments without any planning. They make hasty investment decision when the market and economy was at its peak based on some recommendation. Some of you might have invested during secondary market boom of 1992 and primary market boom of 1994-95. Many investors of those times are yet to recover their losses. In the year 1999-2000, investors of several software stocks, both in primary and secondary market, have lost heavily. In all these cases, the problem is lack of planning and to an extend greed. Both are not good for making a decent return on investment. A typical investment decision undergoes a five-step procedure, which in turn forms the basis of the investment process. These steps are:

- 1) Determine the investment objectives and policy
- 2) Undertake security analysis
- 3) Construct a portfolio
- 4) Review the portfolio
- 5) Evaluate the performance of the portfolio

You may note at the very outset that this five-step procedure is relevant not only for an individual who is on the threshold of taking his own investment decisions but also for individuals and institutions who have to aid and work out investment decisions for others



i.e., for their clients. The investment process is a key-process entailing the whole body of security analysis and portfolio management. Let us, now, discuss the steps involved in the investment process in detail:

1. Investment objectives and Policy

The investor will have to work out his investment objectives first and then evolve a policy with the amount of investible wealth at his command. An investor might say that his objective is to have 'large money'. You will agree that this would be a wrong way of stating the objective. You would recall that the pursuit of 'large-money' is not possible without the risk of 'large losses'. The objective should be in clear and specific terms. It can be expressed in terms of expected return or expected risk. Suppose, an investor can aim to earn 12% return against the risk-free rate of 9%. It means the investor is willing to assume some amount of risk while making investment. Alternatively, the investor can set her or his preference on risk by stating that the risk of investment should be below market risk. In specific terms, she or he can say that beta of the portfolio has to be 0.80. If the investor defines one of the two parameters of investment (return or risk), it is possible to find the other one because a definite relationship exists between the two in the market. It may not be possible for you to define both return and risk because it may not be achievable. For example, if you want to earn a return of 12% with zero risk when government securities offer a return of 9%, it would not be possible to develop an investment for you. Thus, it is desirable to set one of the two parameters (risk or return) and find the other one from the market. If necessary, an investor can revise the objective if she/he finds the risk is too high for her/him to bear a desired return. Though setting an investment objective is good, many investors fail to do the same and blindly invest their money without bothering the risk associated with such investments. Investments are bound to fail if an investor ignores this point.

The next step in formulating the investment policy of an investor would be the identification of categories of financial assets he/she would be interested in. It is obvious that this in turn, would depend on the objectives, amount of wealth and the tax status of the investor. For example, a tax-exempt investor with large investible wealth like a pension/provident fund would invest in anything but tax-exempt securities unless compelled by law to do so. Some investors may entirely avoid derivatives because of high risk associated with such investments. Some investors may invest more in equities to earn higher return but use derivatives to reduce additional risk. As in consumer products, financial products also come with different colours and flavors and one has to be highly knowledgeable before selecting appropriate securities.

2. Security Analysis

After defining the investment objective and broadly setting the proportion of wealth to be invested under different categories, the next step is selecting individual securities under each category. For instance, if an investor sets 50% of her/his wealth to be invested in government securities, the next question is which of the government securities that the investments should be made. It should be noted that not all government securities are one and the same. A long-term government bond is much riskier than short-term bonds. Similarly, investment in equities requires identification of companies stocks, in which the investment can be made. Security analysis is often performed in two or three stages. The first stage, called *economic analysis*, would be useful to set broad investment objective. If the economy is expected to do well, investor can invest more in stocks. On the other hand, if the economic slowdown is expected to continue, investor can invest less in stocks and more in bonds. In stage two, investors typically examine the industries and identify the industries, in which investment can be made. There are several classifications of industry, which we will discuss in a separate unit. Investments need not be made in any one specific industry because many of the stocks may be overpriced in a growth industry. It is better to look for three to five industries and it depends on individual's choice. The issue is an *analysis of broad trends of industry* and future outlook is essential to proceed further on security analysis.

As the last step, one has to look into the fundamentals of specific companies and find whether the stock is desirable for investment. At this stage, investors need to match the risk-return objective she/he has set in the previous stage. *Company specific analysis* includes examination of historical financial information as well as future outlook. Using historical performance and future outlook, specifically the future cash flows are projected



and discounted to present value. Through such analysis, analysts quantify the intrinsic value of the stock and compare the same with current market price. If the intrinsic value is greater than the current market price, the stock qualifies for investment. For instance, if an investor based on her/his understanding and estimation of cash flows finds the intrinsic value of Hindustan Lever is Rs. 300 against its market price of Rs. 250, then the stock qualifies for investment.

Similar analysis has to be done for other stocks too. Since a large number of stocks are traded in the market, it may be difficult to perform such analysis for all stocks. Normally, investors use certain conditions to reduce the number of stocks for such analysis. However, before investing in the stock, the investor would like to examine whether the stock fits into the risk-return profile that was outlined earlier.

3. Portfolio Construction

In the previous stage, bonds and stocks, which fulfil certain conditions, are identified for investments. Under portfolio construction stage, the investor has to allocate the wealth to different stocks. A couple of principles guide such allocation of wealth. Investors need to appreciate that the risk of portfolio comes down if the portfolio is diversified. Diversification here doesn't mean more than one stock but stocks whose future performance are not highly correlated. Further, too much diversification or too many stocks may also create problem in terms of monitoring. For example, if the investor decides to invest 10% of the wealth in software sector, it would be desirable to restrict the investment in two or three stocks based on the amount of investment. On the other hand, if she/he invests in 20 software stocks, the portfolio will become too large and create practical problem of monitoring. While including stocks in the portfolio, the investor has to watch its impact on the overall portfolio return and risk and also examine whether it is consistent with the initial investment objective.

Portfolio construction is not done once for all. Since investors saving take place over a period of time, portfolios are also constructed over a period of time. It is a continuous exercise. Sometime, timing of investment may be critical. For instance, if an investor saves Rs. 30,000 during the first quarter and the desired portfolio includes both bonds and stocks, the issue before the investor is whether the amount has to be used for bonds or stocks or both. It requires some further analysis at that point of time. However, over the years, when the accumulated investments grow to certain level, subsequent yearly investments as a proportion of total investments will become smaller and hence the timing issue will become minor decision.

4. Portfolio Revision

Under portfolio construction, investor is matching the risk-return characteristics of securities with the risk-return of investment objective. Under two conditions, the securities, in which investment was made earlier, require liquidation and investing the amount in a new security. The risk or expected return of the security might have changed over a period of time when the business environment changes. For instance, the software sector, which was showing 100% growth between 1995-2000 has suddenly become risky after the U.S. slowdown. Many frontline companies have revised their estimated earnings growth from 100% to 40%. The stock might also become less risky but offer lower return. That is, when the risk-return characteristics of securities change, it will affect the desired risk-return characteristics of portfolio and hence calls for a revision of portfolio of stocks. Another reason for selling some of the securities in the portfolio and buying a new one in its place is a change in investment objective. For instance, when you are young and have less family commitments, then your investment objective may aim for higher return even if it amounts to higher risk. You may invest more of your savings in equity stocks and derivatives. When your family grows, you might want to reduce the risk and change the investment objective. Portfolio of securities has to be revised to reflect your new investment objective. There is yet another reason for revision, which we discussed earlier. When the macro-economic condition changes, you may want to shift part of your investment from equity to debt or vice versa depending on the future economic outlook.

5. Portfolio Performance Evaluation

The value of your investment changes over a period of time and it reflects the current market value of the securities in the portfolio. For instance, if you have made some investment in Hindustan Lever some 10 years back, when you first started investing, the



value of HLL today is several times more than its value some 10 years back. Few stocks could have resulted in a loss and it would be difficult to construct a portfolio of stocks only with winner stocks. Portfolio return reflects the net impact of positive and negative returns of individual securities in the portfolio. At the end of each period, you may like to compute the portfolio return and risk and compare the same with your investment objective as well as certain benchmark risk-return. The objective of this exercise is to evaluate the efficiency in construction and management of portfolio.

1.4 THE INVESTMENT ENVIRONMENT

A reading of the first three sections would have provided some understanding on the basic principles of investment. Suppose you are able to frame your investment objective and also identified securities that are to be purchased. Now you need to deal with the market for the purchase and sale of securities. An understanding of the operational details of the market would be useful. Investment decisions to buy/sell securities taken by individuals and institutions are carried through a set of rules and regulations. There are markets - money and capital - that function subject to such rules and established procedures and are, in turn, regulated by legally constituted authority. Then there are securities or financial instruments which are the objects of purchase and sale. Finally, the mechanism, which expedites transfers from one owner to another, comprises a host of intermediaries. All these elements comprise the investment environment. Investors have to be fully aware of this environment for making optimal investment decisions.

Discussion in the following paragraphs provides a brief overview of the three elements of the investment environment viz., instruments, institutions, and markets:

1.4.1 Financial Instruments

Financial assets or instruments can be classified in a variety of ways. We will classify them into *creditorship and ownership securities* on the basis of the nature of the buyer's commitment. The description will then be split into *public and private issues* differentiating the two major forms of issuance.

Creditorship Securities

Debt instruments furnish an evidence of indebtedness of the issuer to the buyer. Periodic payments on such instruments are generally mandatory and all of them provide for the eventual repayment at maturity of the principal amount. Securities may also be sold at a price below the eventual redemption price, the difference between the redemption price and the sale price constituting the interest. For example, a buyer of a Rs. 100 bond/debenture may receive an interest at 6 per cent for one year in one of the following ways:

- a) he pays Rs. 100 at the time of investment and receives Rs. 106 at the end of one year, or
- b) he pays Rs. 94.30 at the beginning and receives Rs. 100 at maturity i.e., he receives 6 per cent of Rs. 94.30 that is equal to the difference between Rs. 100 (redemption price) and Rs. 94.30 (issue price).

The latter arrangements are known as **zero-interest** bonds. The interest amount in rupees measured as a percent of the par value of a debt instrument is known as nominal or coupon rate of interest. For example, Rs. 28 payable per year on a debenture whose face/par value is Rs. 200 yields a coupon rate of 14 per cent per annum.

Debt instruments can be issued by public bodies and governments and also by private business firms.

Public Debt Instruments: Government issues debt instruments for long and short periods. They are rated the best in terms of quality and are risk-free. A common term used to designate them is 'gilt-edged-securities'. The 182-day treasury bills issued by the Government of India are examples of short-term instruments. Government also borrows money for long-term and 11.5 percent Loan 2009 (V issue) of the Government of India is an example of long-term instruments. State governments and local bodies also issue series of loans and bonds. Banks, insurance, pension and provident funds, and several other



organizations buy government debt instruments in compliance with their statutory obligations. Such debt instruments are usually over-subscribed. You can refer money market page of any one of the financial dailies, where you can find the list of short-term and long-term securities that were bought and sold on a particular day.

Private Debt Instruments: These are issued by private business firms, which are incorporated as companies under the Companies Act, 1956. Generally these instruments are secured by a mortgage on the fixed assets of a company. In addition to plain debt instruments, there are several variations. A very popular variety of such debentures are 'convertible' whereby either the whole or a part of the par value of a debenture is convertible (either automatically or at the option of investors) on the expiry of a stipulated period after issue. The terms of conversion are stated in advance. There may be a series of conversions and conversion price may differ from period to period.

Select Indian companies are now raising short-term funds by issuing a debt instrument known as Commercial paper (CP). The Reserve Bank of India has issued detailed guidelines in January 1990 in this regard. They are contained in "Non-Banking Companies (Acceptance of Deposits through the Commercial Paper) Directives, 1989". The eligibility for entering into the CP market is based on transparent norm, which companies themselves, can readily assess. These conditions were relaxed in April 1990.

Special Debt Instruments : With a view to mop up resources and innovating the spectrum of debt-instruments, two new debt instruments deserve a special mention viz., Public Sector Undertaking (PSU) Bonds (long-term) and Certificate of Deposit (short-term).

The PSU bonds are issued to the general public and financial institutions by public sector undertakings, usually with tax incentive. It is interesting to note that a large proportion of PSU bonds is privately placed with banks, their subsidiaries, and financial institutions. Certificates of Deposits (CDs) were introduced in June 1989. Commercial banks are permitted to issue CDs within a ceiling equal to 2 per cent of their fortnightly average outstanding aggregate deposits. The maturity of 3 months at the short-end and one-year at the longer end was generally popular with investors. Interest rates for CDs are normally higher than the interest rate offered by the bank for similar maturity period deposits.

Ownership Securities: These instruments are called 'equities' because investors who invest in them get a right to share residual profits. Equity investment may be acquired indirectly or directly or even through a hybrid instrument known as preference shares. They are discussed in this order.

Indirect Equities: The investor acquires special instruments of institutions, who take the buy-sell decisions on behalf of investors. Such institutions are Unit Trust or Mutual Funds. An individual who buys Unit gets a dividend from the income of the Trust/Mutual Fund after meeting all expenses of management. The Units can be bought from and sold to the institution at sale and repurchase prices announced from time to time (on a daily basis). Many mutual funds schemes are also listed in stock exchanges and investors can also sell and purchase the Units through secondary markets. The objective of Trusts and Mutual Funds is to use their professional expertise in portfolio construction and pass on the benefits to the small investor who cannot repeat such a performance if left alone to subscribe to equity shares directly.

Direct Equities: The investor can subscribe directly to the equity issues placed on the market by the new companies or by the existing companies. If she/he is already a shareholder of an existing company, which enters the capital market for additional issue of equity shares, such an investor would get a pro rata right to subscribe, on a pre-emptive basis, to the new issue. Such offerings are known as '**rights shares**'. Established companies' reward their shareholders in the form of '**bonus shares**' as well. They are given out of the accumulated reserves and shareholders need not pay any cash consideration as happens in the case of 'right shares'. For example, a company may announce a bonus issue on a one-for-one basis. This amounts to a 100 per cent bonus issue (or, loosely stock dividend) so that the number of shares held by a shareholder after the bonus would be doubled. The chances for an increase in the potential dividend income become very bright and this would happen unless the company imposes a proportionate cut in future dividends. Thus, a shareholder, who held 100 shares of Rs. 10 each in a company, got a dividend income of Rs. 200, the dividend announced being 20

per cent. His shareholding after a 100 per cent bonus now increases to 200. Now, if the company maintaining the same rate of dividend as last year viz., 20 per cent, the

dividend income of the shareholder would go up to Rs. 400. He will, of course, get only Rs. 200 even after the bonus if the company prunes the dividend to 10 per cent.



Table 1.1: New Capital Issues by non-Government public limited companies
(Rs. in crores)

Year	No. of Primary Market Issues	Amount Raised Through		
		Debt	Equity/Hybrid	Total
1992-93	528	409	5651	6060
1993-94	770	1720	10824	12544
1994-95	1343	0	13312	13312
1995-96	1428	2940	8882	11822
1996-97	753	6977	4671	11648
1997-98	62	1929	1132	3061
1998-99	32	7407	504	7911
1999-00	65	4698	2975	7613
2000-01	131	2784	2140	4924
2001-02	78	1272	6270	7542

Source: The Primary Market Monitor, Prime Annual Reports, Praxis Consulting & Information Service, New Delhi & Economic Survey.

Table 1.2: Industry-wise Listing of Initial Public Offerings

Year	Financial Services	Manufacturing	Banks and FIs	Software	Other Services
1992-93 (13)	128.76 (430)	2000.68 (1)	4.10 (5)	31.04 (30)	101.71
1993-94 (48)	191.57 (560)	2710.47 (2)	37.91 (20)	57.27 (32)	119.98
1994-95 (223)	895.28 (949)	6168.08 (4)	393.52 (10)	24.03 (45)	295.50
1995-96 (440)	829.21 (753)	2738.91 (1)	30.40 (31)	63.26 (123)	318.37
1996-97 (248)	548.46 (388)	1151.35 (4)	884.81 (10)	20.03 (65)	212.37
1997-98* (18)	36.44 (27)	142.34 (3)	516.38 0	0.00 (3)	7.75
1998-99 (3)	10.88 (4)	26.49 (4)	174.90 (5)	101.92 (2)	6.78
1999-00 (2)	32.45 (7)	709.29 (3)	180.00 (36)	1476.98 (3)	153.61
1992-00	2673.05 (995)	15647.60 (3118)	2222.01 (22)	1774.54 (117)	1216.07 (303)

Note: Figures compiled from various issues of Prime Annual Reports, Praxis Consulting & Information Service, New Delhi. Figures exclude issues of exiting companies and debt issues. Figures in bracket are number of issues.

A less popular instrument is called 'preference share'. It is neither full debt nor full equity and is, therefore, recognized as a 'hybrid security'. Such a shareholder would have certain preference over equity shareholder. They may relate to dividends, redemption, participation, and conversion, etc. The most common is with regard to dividends which, when not paid for any particular year, get accumulated and no equity dividend would be payable in future until such accumulated areas of preference dividend are cleared. The dividend rate on these shares is normally less than the one on equity shares but greater than interest rate.

You may get an idea of the growth in issues of various kinds of instruments by public limited companies in the non-government sector from Table 1.1

Activity-2

- i) Study Table 1.1 and 1.2 and list out main trends and conclusions with regard to the size and relative popularity of various instrument of finance.

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- ii) Note down top 20 stocks in term of trading volume in NSE yesterday from the newspapers. Collect data with regard to the dividend and earnings record of these companies.

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1.4.2 Financial Intermediaries

Financial intermediaries perform the intermediation function i.e., they bring the users of funds and the suppliers of funds together. Many of them issue financial claims against themselves and use cash proceeds to purchase the financial assets of others. The Unit Trust of India and other mutual funds belong to this category.

Most financial institutions underwrite issues of capital by non-governmental public limited companies in addition to directly subscribing to such capital either under a public issue or under a private placement. In 1992, SEBI required all equity issues were to be underwritten fully but this requirement was withdrawn subsequently. The percentage of underwriting has come down substantially after the withdrawal of this requirement. While good issues require no underwriting, underwriters are not willing to underwrite bad issues. Table 13 shows the changing trends in underwriting.

The financial institutions engaged in intermediary activities include the Industrial Development Bank of India, Industrial Finance Corporation of India, Industrial Credit and Investment Corporation of India, Unit Trust of India, Life Insurance Corporation, and General Insurance Corporation. Two institutions, which have broadened financial services activities in India, deserve a special mention. They are: The Credit Rating Information Services of India Ltd., (CRISIL) and other credit rating agencies, and the Stockholding Corporation of India Ltd. (SHCIL).

Table 1.3: Trend in Underwriting of Public Issues
(Rs. in crores)



Year (1)	Total Issue Size (2)	Amount Underwritten (3)	(3) As % of (2)
1994-95	13312	10286	77.27%
1995-96	11822	3257	27.55%
1996-97	11648	912	7.83%
1997-98	3061	269	8.79%
1998-99	7911	158	2.00%
1999-00	7613	2159	28.36%

Source: *The Primary Market Monitor, Prime Annual Reports, Praxis Consulting & Information Service, New Delhi.*

CRISIL, the first credit rating agency of the country, was set up jointly by ICICI, UTI, LIC, GIC, and Asian Development Bank. It started operations in January 1988 and has rated a large number of debt instruments and public deposits of companies. CRISIL ratings provide a guide to investors as to the risk of timely payment of interest and principal on a particular debt instruments and preference shares on receipt of request from a company. Ratings relate to a specific instrument and not to the company as a whole. They are based on factors like industry risk, market position and operating efficiency of the company, track record of management, planning and control system, accounting, quality and financial flexibility, profitability and financial position of the company, and its liquidity management.

The SHCIL was sponsored by IDBI, IFCI, ICICI, UTI, LIC, GIC and IRBI to introduce a book entry system for the *transfere* of shares and other types of scrips replacing the present system that involves voluminous paper work. The corporation commenced its operations in August 1988. Commencing its operations with UTI, SHCIL has now extended its operations to GIC, LIC mutual fund, and New India Assurance Co. Ltd.

1.4.3 Financial Markets

Securities markets can be seen as primary and secondary. The primary market or the new issues market is an informal forum with national and even international boundaries. Anybody who has funds and the inclination to invest in securities would be considered a part of this market. Individuals, trusts, banks, mutual funds, financial institutions, pension funds, and for that matter any entity can participate in such markets. Companies enter this market with initial and subsequent issues of capital. They are required to follow the guideline prescribed by the regulating agencies like SEBI from time to time unless they are expressly exempted from doing so. A prospectus or a statement-in-lieu of prospectus is a necessary requirement because this contains all material information on the basis of which the investor would form judgement to put or not to put his money. Concealment and misrepresentations in these documents have serious legal implications including the annulment of the issue.

Some companies would use the primary market by using their 'in house' skill but most of them would employ brokers, broking and underwriting firms, issue managers, lead managers for planning and monitoring the new issue. New guidelines issued by the Securities & Exchange Board of India (SEBI), now, require the compulsory appointment of a registered merchant banker as issue manager where the amount of the capital issue exceeds Rs.50 lakhs.

Secondary markets or stock exchanges are set up under the Securities Contracts (Regulation) Act, 1956. They are known as recognized exchanges and operate within precincts that possess networks of communication, automatic information scans, and other mechanized systems. Members are admitted against purchase of a membership card



whose official prices vary according to the size and seniority of the exchange. Membership cards generally command high unofficial premia because the number of members is not easily expandable. Business was earlier transacted on the trading floor within official working hours under the open bid system. Today, all exchanges in India have introduced screen-based trading where the members of the exchange transact the business (purchase and sale of securities) through computer terminals. You can visit the nearest NSE broker's office to find yourself how trading takes place. Methods of recording and settlement are laid down in advance and members are obligated to follow them. Arbitration procedures exist for the resolution of disputes. The regulatory mechanism relating to capital market has seen major changes during the last ten years. The Securities and Exchange Board of India (SEBI) is now responsible to monitor and control the stock market operations, new capital issues, working of mutual funds, merchant bankers and other intermediaries. SEBI has issued separate guidelines for each of the above entities and requires all the intermediaries to register with the SEBI and periodically submit the reports on their operations.

1.5 SUMMARY

Individuals save a part of their earnings to meet their future cash flow needs. Such savings are often invested in securities since money has a time value. Investments normally offer a positive return, which often is more than rate of inflation. Such a positive return is an incentive for individuals to increase the level of savings and help the country by creating new capital. Individuals before making investments need to understand the basic principles of investments. While this course aims to give a comprehensive input on investments, this unit gives an overview of the subject. Some of the important issues covered in this unit are :

1. Securities are of different types and the expected return from such securities differs considerably. Government securities offer lowest return but they are also risk-free. Equities offer maximum return but they are too risky. Risk and return of securities go together.
2. The starting point of investment process is clearly defining the investment objectives. Investment objectives are expressed in terms of expected return or risk and period of holding. Security analysis is performed to identify securities, which qualify for investments. Following the principles of portfolio management, securities are combined to achieve diversification. Portfolios are periodically revised and performance of managing the portfolio is also periodically evaluated.
3. In addition to knowing the basic principles of investments, an investor is also required to know the operations of securities market. Different types of securities are traded in the market and they are broadly classified into debt and equity instruments. They are bought and sold through a set of intermediaries, which include brokers, stock exchanges, etc. All stock market intermediaries are regulated by the SEBI to ensure orderly functioning of the market.

1.6 KEY WORDS

Ex ante: Before event or fact.

Expected return: Ex ante return on an investment. **Ex post:** After the event of fact.

Ex post return: Actual or realized return on an investment.

Financial Assets: Documentary evidence of financial claim of the holder, say of shares on debentures, over the issuer.

Financial intermediation: A function, which brings the savers and users of funds together, usually performed by specialized agencies and institutions like banks and underwriters for agreed/stipulated commission.



Investment: Commitment of funds for a period usually exceeding one year in expectation of a required rate of return.

Investment decision: The decision to acquire, hold, or dispose asset by rational and risk-averse individuals/organizations.

Marketable securities: Financial claims, which are tradeable in organized markets at the best prices.

Portfolio: A collection of two or more assets, generally employed in the context of financial assets.

Portfolio construction: Building up a portfolio of financial assets with consideration of selectivity, timing, and diversification or raising a portfolio with rational selection criteria, at the right time, and in a way that the risk is reduced to the minimum for a given level of expected return.

Portfolio revision: A review of an existing portfolio in the light of changes in risk-return dimensions.

Portfolio evaluation: Assessing the performance of a portfolio on the basis of some aptly developed norms or yardsticks.

Real assets: Physical assets held to perform an activity with an expected income/pay off profile.

Realized return: The pay-off rate on an investment, which occurs after an event/fact i.e., the actual return.

Risk: The probability that the realized return would be different from the anticipated return of an investment.

Risk-averse investors: Rational individuals, who avoid risk and demand a compensation for assuming risk.

Risk-free rate of return: The monetary rate of return obtainable on financial assets with zero probability of default on principal and periodic payments, e.g. government or gilt edged securities.

Risk-return trade-off: An approach to investment decision-making whereby the utility/ welfare maximizing individuals acquire assets in a way that their returns are maximized for given levels of risk or risk is minimized for given level of return.

Security analysis: A methodology whereby forecasts of financial variables like earnings, dividends, cash flow are made for individual securities, (i.e. micro level) or for securities as a homogeneous industry group (macro-level) using either past data or a discounting approach.

Securities market: Organized and recognized trading centres, where financial claims are bought and sold as per established rules and procedures.

Zero-interest bonds: Creditorship securities on which a coupon rate is not made explicit but the compensation is provided through a discount on the purchase price or a premium on redemption.

1.7 SELF-ASSESSMENT QUESTIONS/EXERCISES

- 1) Define investment.
- 2) Describe the steps involved in the investment process.
- 3) Briefly explain the problems of selectivity, timing, and diversification in portfolio construction.



- 4) Distinguish the following:
 - a) Financial asset and real asset
 - b) Risky investment and risk-free investment
 - c) Debt instruments and equities
- 5) Define the following terms:
 - a) Risk
 - b) Coupon rate
 - c) Zero-interest bonds
 - d) Credit Rating
 - e) Depository functions
- 6) State and explain the effect of changes in investment environment on investment decisions.
- 7) Why should portfolio be continually evaluated?
- 8) Tick the correct alternative in the following:
 - a) All risk-averse investors crave for maximum wealth. (True/False)
 - b) Risk is the probability of actual return diverging from expected return. (True/False)
 - c) A non-member cannot operate on the trading floor of recognized stock exchange. (True/False)
 - d) Preference shares are equities. (True/False)
 - e) All public sector bonds provide tax-free interest. (True/False)
 - f) CRISIL provides comprehensive financial consultancy to those who approach it. (True/False)
 - g) Financial institutions do not directly subscribe to the shares and debentures of companies. (True/False)
 - h) A registered merchant banker must be appointed as a manager for a new issue exceeding Rs. 50 lakhs. (True/False)
 - i) An ex ante return is the return, which has been planned or expected. (True/False)
 - J) Investment decisions are concerned only with financial assets. (True/False)
 - k) When an individual invests he commits his funds with an expectation to obtain an adequate return (True/False)
 - l) A rational investor maximizes his current and future wealth (True/False)
 - m) Investors do not care for the real rate of return and ignore Inflation. (True/False)
 - n) All investors require an abnormal compensation even for low levels of risk. (True/False)
 - o) Investible funds have an opportunity cost which influences the investor's required return. (True/False)
 - p) Some investors will not accept any risk whatsoever but some others would be virtual dare-devils. (True/False)
 - q) Equity shares are less risky than debentures. (True/False)



1.8 FURTHER READINGS

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