CHAPTER 4

THEORETICAL ISSUES IN INVESTMENT

In order to gain a proper understanding of individual investor behaviour, it will be useful to have an explanation of the important related concepts. In this chapter, it is proposed to give a classification of investors, the various risks in investment, the investment process and the well established theories of investment behaviour.

4.1 INVESTMENT AND RELATED CONCEPTS

Investments, in its broadest sense, means the sacrifice of certain present value for an uncertain future reward. Two important factors, namely, Time factor and the risk factor are involved in investment. The sacrifice takes place in the present times and is therefore certain. The reward comes later and the magnitude of the same is generally uncertain. In some cases of investment, the element of time is dominant as in the case of Government securities. In some other cases, risk is the dominant factor as in the case of call options on common stocks. In other cases, both time and risk are equally important as in the case of shares of common stock. Everybody who buys or sells securities has become an
investor, regardless of what he buys or with what purpose, or at what price, or whether for cash or on margin.

Intelligent Investment

An investment operation is one which, if based on a thorough analysis, promises safety of principal and a satisfactory return. It may include the purchase of non-dividend paying stocks, or even defaulted bonds, if the buyer is sure that they will eventually work out at a value well above their cost to him. In such a case the "satisfactory return" would come in the form of capital gain rather than of regular income. A typical investor will emphasize safety of principal; he will buy securities outright; he will usually hold these for a considerable period; he will be more interested in annual income than in quick price changes.

Intelligent investment today cannot ignore price changes entirely. The security owner must pay attention to them at least to the extent of endeavouring to protect himself against adverse changes of substantial extent. It is also appropriate -- for tax and other reasons -- that an investor places prime emphasis, upon an increase in principal value over a period of time rather upon annual income; but this should not be understood to mean an emphasis upon a quick profit as in the ordinary trading operation.
INVESTMENT ENVIRONMENT

The investment environment consists of securities (also known as financial investments or financial assets), security markets (also known as financial markets), and financial intermediaries (also known as financial institutions).

Securities

In general, only a piece of paper represents the investor’s rights to certain prospects or property and the conditions under which he may exercise those rights. This piece of paper, serving as evidence of property rights, is called a security. The security can be used to refer to a legal representation of the right to receive prospective future benefits under stated conditions. The task of security analysis is to identify mispriced securities by determining these prospective future benefits, the conditions under which they will be received, and the likelihood of such conditions.

The type of security involves the purchase of a group of common stocks, each of which represents a commitment on the part of a corporation to pay periodically whatever its board of directors deems appropriate as a cash dividend. Although the amount of cash dividends to be paid in a year is subject to some uncertainty, it is relatively predictable.
However, the amount for which a stock can be bought or sold varies considerably from time to time, making the annual return highly unpredictable. When sensible investment strategies are compared with one another, risk and return tend to go together. That is, securities that have higher average returns tend to have greater amounts of risk.

**Security Markets**

Security markets exist in order to bring together buyers and sellers of securities, meaning they are mechanisms that exist in order to facilitate the exchange of financial assets. There are many ways in which they can be analyzed. One way has already been mentioned—primary and secondary financial markets. Here the key distinction was whether or not the securities were being offered for sale by the issuer. The primary market itself can be subdivided into seasoned and unseasoned new issues. A seasoned new issue refers to the offering of an additional amount of an already existing security, whereas an unseasoned new issue involves the initial offering of a security to the public. Another way of distinguishing security markets involves the life span of financial assets. Money markets typically involve financial assets that have a life span of one year or less, whereas capital markets typically involve financial assets that have a life span greater than one year.
Financial intermediaries

Financial intermediaries, also known as financial institutions, are organisations that issue financial claims against themselves (meaning that they sell financial assets representing claims on themselves in return for cash) and use the proceeds from this issuance to purchase primarily the financial assets of others. Since financial claims simply represent the right-hand side of the balance sheet for an organisation, the key distinction between financial intermediaries and other types of organisations involves what is on the left-hand side of the balance sheet.

Why does one invest?

It has been observed by Bolster and Trahan\(^1\) that a person invests to meet

(i) *Investment objective*, or

(ii) *Financial needs*, or

(iii) *Level of sophistication* desired

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(i) **Investment objective**

This objective captures the investor’s expectation of investment performance in several dimensions. These objectives are articulated in descriptions of five sub-elements.

(a) *Level of expected return:* The level of return that the investor desires, augmented by what the investment professional feels is appropriate.

(b) *Risk tolerance:* The level of risk the investor is willing to bear, augmented by what the investment professional feels is appropriate.

(c) *Time horizon (Holding period):* The amount of time an investor is willing to maintain an investment position. The suitability of higher risk investments for an investor’s portfolio is positively related to the length of his or her time horizon.

(d) *Liquidity:* Importance to the investor of being able to convert an investment into cash quickly and without a substantial change in value. The suitability of high-risk investments for an investor’s portfolio is negatively related to the desire for liquidity.
(e) *Ease of Management:* The degree of monitoring and decision making required to manage the investment. Low-risk investments are more suitable for investors seeking a portfolio that is easy to manage.

(ii) *Financial needs*

This element provides an assessment of the client's financial position, sources of future income, and cash outflows. Factors that influence the financial needs are divided into nine elements.

(a) *Age:* High risk investments are generally more suitable for younger investors, who will have more time to offset any potential losses.

(b) *Marital status:* Single investors should be more able to bear investment risk than married investors.

(c) *Number of dependents:* The more the dependents, the less suitable high-risk investment will be.

(d) *Occupation:* Occupation may affect the stability of income and the qualifications of investors to evaluate and to assume risk.
(e) **Major source of income:** Investors with stable, low-risk sources of income will be able to tolerate riskier investments than other investors.

(f) **Annual income:** The level of annual income will affect the suitability of various investments. The suitability of high-risk investments for an investor's portfolio related to the level of annual income.

(g) **Liquid net worth:** The greater the amount of liquid net worth, the greater the investor's ability to bear risk.

(h) **Level of insurance:** Insurance relates to the investor's ability to bear other types of risk. The suitability of high-risk investments for an investor's portfolio is positively related to the level of insurance.

(i) **Health:** Poor health will generally deter investors from taking on other types of risks. The suitability of high-risk investments for an investor's portfolio is negatively related to his or her health or the health of dependents.

(iii) **Level of sophistication**

This element allows for consideration of a client's ability to understand risk and risky investments. Following are some of the elements;
(a) **Investment experience:** The investment experience of the investor will influence the suitability of various investments for the portfolio. The suitability of high-risk investments for an investor's portfolio is positively related to the degree of prior investment experience.

(b) **Credit/bankruptcy history:** Investors with low debt and a good credit history will find risky investments more suitable than investors with a history of credit or bankruptcy problems.

(c) **Education:** Education may allow investors to evaluate the nature of risky investment better. The suitability of high-risk investments for an investor's portfolio is positively related to his or her level and type of education.

**SAVINGS AND INVESTMENT**

A distinction is made between *investment* and *savings*. Savings is defined as foregone consumption; investment is restricted to "real" investment of the sort that increases national output in the future. The saving process depends on two things: (i) ability, and (ii) willingness. The extent to which an individual or a nation can save is related to the amount of income. Saving is impossible when income only provides enough for bare survival. Poverty makes thrift difficult, wealth makes it easy. But individuals and nations with similar
incomes show varying degrees of thrift. Education and social attitudes that encourage thrift and opportunities for safe and profitable investment are important.

**SPECULATION AND INVESTMENT**

An investment is a commitment of funds made in the expectation of some positive rate of return. If the investment is properly undertaken, the return will be commensurate with the risk the investor assumes.

"Speculation" is often defined as the purchase of high-risk securities, such as those of a newly organised company of uncertain success. Uncertainty and lack of information open the door to greater appreciation potential and so make suitability for speculation.

Generally, investment is distinguished from speculation by the time horizon of the investor, and often by the risk-return characteristics of the investment. The true investor is interested in a good rate of return, earned on a rather consistent basis for a relatively long period of time. The speculator seeks opportunities promising very large returns, earned rather quickly. The speculator is less interested in consistent performance than is the investor, and is more interested in the abnormal, extremely high rate of return than the normal, more moderate rate. Furthermore, the
speculator wants to get these high returns in a short time and then seek greener pastures in other investment outlets.

**IMPORTANCE OF AN INVESTMENT PLAN**

No investment is suitable for all needs. The investment that is appropriate is the one that fits the investor's needs. To what extent he may need to recover principal to meet future needs, including emergencies (price stability and marketability), how much fluctuation in income and prices he can bear, how far an inflation hedge is desirable, and how far capital gain and tax exempt income should be purchased to maximize net investment return. He has to study all these things and then go for a suitable investment plan.

**4.2 INVESTMENT STRATEGIES**

Investors may be classified as (I) Defensive/Conservative investors, (ii) Aggressive/Enterprising investors. At first, the strategy that is adopted by defensive investors may be taken up. Major class of investors are called the defensive or the conservative, in the sense of conserving the capital. For all the defensive investors, intelligent action will mean largely the exercise of firmness in the application of relatively simple principles of sound procedure.
The defensive investor is one interested chiefly in safety plus freedom from bother. He should follow a simple two-part program, dividing his portfolio between suitable bonds and diversified list of leading common stocks. Appropriate lists of this kind can be readily prepared by a competent security analyst or investment advisor. The investor will have to make a choice between two courses of action relating to the proportion of his portfolio committed to common stocks. In the one case the amount is fixed, more or less permanently, say at 50 per cent. He will then make rather infrequent adjustments to restore the figure to 50 per cent after it has been changed, say to 55 per cent or to 45 per cent, by a significant advance or decline in the market level. In the second case, he might seek to reduce his holdings of common stocks below the 50 per cent figure (say down to 25 per cent) if he felt the market level was dangerously high; and conversely, he would be ready to build up the proportion (to perhaps as high as 75 per cent) if he felt that a decline in stock prices was making them increasingly attractive.

To these strategies one may add three supplementary concepts or practices for the defensive investor. The first is the purchase of shares of the leading investment funds as an alternative to creating his own common stock portfolio. Alternatively, he may utilize one of the "common
trust funds" which are operated by trust companies and banks in many states; or, if his funds are substantial, he may use the services of established investment advisors. This will give him professional administration of his investment program along standard lines. The second is the device of "rupee-cost averaging", which means simply that the investor invest in common stocks the same amount (in rupees) each month or quarter. By this means, he buys more shares in low markets than in high markets and thus is likely to end up with satisfactory average price for all his holdings. The third is known as "formula planning", and was already alluded to in the suggestion that the investor may wish to vary his holdings of the common stocks between the 25 per cent minimum and the 75 per cent maximum, in inverse relationship to the action of the market. All these ideas have merit for the defensive investor.

The second category of investors, to be termed "aggressive" or "enterprising". They are not distinguished from the others by their willingness to take risks--for in that case they should be called speculators. Their determining trait is rather their willingness to devote time and care to the selection of sound and attractive investments. It is not suggested that the enterprising investor must be fully trained expert in the field. He may well derive his information and ideas from others, particularly from security analysts. But the decision will be his own, and in
the last reckoning he must rely upon his own understanding and judgement. The first rule of intelligent action by the enterprising investor must be that he will never embark on a security purchase that he does not fully comprehend and that he cannot justify by reference to the results of his personal study or experience.

The investor must make sure that his results will not be worse. It is most essential that the aggressive/enterprising investor starts with a clear conception as to which course of action has reasonable chances of success and which do not.

Following are the five standard methods by which the aggressive/enterprising investor may attempt to make more than ordinary profit."

(i) *General Trading*: That is, anticipating or participating in the moves of the market as a whole, as reflected in the familiar ‘averages’. 

(ii) *Selective Trading*: That is, picking out issues that, over a period of a year or less, will do better in the market than the average stock.

(iii) Buying cheap and selling dear: That is, coming into the market when prices and sentiment are depressed and selling out when both are exalted.

(iv) Long-pull selection: That is, picking out companies that will prosper over the years far more than the average enterprise. (These are often referred to as `growth stock'.)

(v) Bargain purchases: That is, selecting issues that are selling considerably below their true value, as measured by reasonably dependable techniques.

It may be categorically stated that either general trading or selective trading has any place in investment practice. Both are essentially speculative in character, because they depend for success not only on the ability to foretell specifically what is going to happen but on the ability also to do this more cleverly than a host of competitors in the field.

Investment too, deals with the future and depends on future developments for its vindication. But the term is meaningless unless it implies that the investor seeks to obtain full present value for his money, that he judges this value in the light of the past record and experience,
and that he deals with the future more as a hazard to be guarded against than as a source of profit through prophecy.

Investment requires and presupposes a margin of safety to protect against developments. In market trading, as in most other forms of speculation, there is no real margin for error; one is either right or wrong, and if wrong one loses money.

The third form of endeavour -- the famous buy-cheap-sell-dear principle -- this approach lays its first emphasis on value received rather than on the expected next movement of the market. The buyer at low market levels can be quite satisfied with his results, particularly the earnings and dividends on his holdings, even if prices do not advance. Buyers in depressed markets have invariably been able to sell out later at a handsome profit. The difficulty with it lies in the irregular nature of the market's wider fluctuations and in the consequent risk of miscalculation if the investor seeks to follow it in the future. Promising though it appears, one cannot be sure that it will prove successful, both financially and psychologically, for the average investor. Whether the investor should attempt to buy low and sell high, or whether he should be content to hold sound securities through thick and thin--subject only to periodic examination of their intrinsic merits--is one of the several choices of policy that the individual must make for himself. A person
close to business affairs, who is in the habit of forming judgements as
to the economic outlook and of acting on them, will be inclined
naturally to make similar judgements about the general level of stock
prices. It would be logical for such investors to be attracted to the
buy-low-sell-high technique. But Professional men and wealthy people
not active in business can more easily immunize their thinking from the
influence of year-to-year fluctuations. For this group, the more attractive
choice may be the simpler one of buying carefully when funds are
available and laying the chief stress on the income return over the
years.

With respect to the fourth method (Long-pull selection), it is
appropriate for investors to select their securities—especially common
stocks—with an eye to their long-term prospects. A well chosen company
can triple its earnings and more than quadruple the price of its stock
over a period of years while badly chosen ones are losing a good part of
their value. Most enterprising investors, therefore, will be inclined to view
as the chief role for their intelligence and judgements the correct
appraisal of the future possibilities of the many companies they
examine.

The final category of opportunities for enterprising
investment lies in the field of undervalued or 'Bargain' issues. These
are the direct antitheses of growth stocks. If the latter may often sell too high because they are too popular, may not non-growth stocks often sell too low because they are too unpopular? We believe the answer to this question is definitely "yes". A sound analogy may be drawn between depressed general market and a stock that is individually unpopular. Just as declines of the whole market tend to go too far because public sentiments is generally pessimistic, so the price of many single issues may fall unduly low because their future is considered to be relatively unpromising. In the depths of a depressed or 'bear' market the average person can see no ray of light ahead and can think only in terms of worse to come.

This quick survey of the various kinds of activity open to the aggressive investor has been at least as full of warnings as of positive suggestions. The apparently simple job of 'doing somewhat better than the averages' is in fact both difficult and not devoid of risk.

INVESTOR EXPECTATIONS

Investors as a whole are not and cannot be dealers or traders in securities. They are owners of the country's larger enterprises. They make money not out of each other but out of these businesses. Hence their major energies and wisdom as investors should, in theory at least, be
directed toward assuring themselves of the best operating results from their corporations. This in turn means assuring themselves of fully honest and competent managements. If the investor does not like the management, he can sell the stock. Obviously such action does nothing at all to improve bad management. It only puts down the price of the stock and shifts the ownership to someone else. Because of that ingrained view, investors as a whole have done nothing to improve managements that require correction. Such improvement as does occur from time to time comes about for special reasons that reflect no credit upon the intelligence of the public owners -- who seem from time immemorial to have abdicated all claim to control over the paid superintendents of their property.

*Market fluctuations as a guide to investment decisions*

Since common stocks, even of investment grade, are subject to recurrent and wide fluctuations in their prices, the investor should be interested in the possibilities of profiting from these pendulum swings. There are two possible ways by which he may try to do this: the way of *Timing* and the way of *Pricing*. *Timing* is meant the endeavour to anticipate the action of the stock market -- to buy or hold when the future course is deemed to be upward, to sell or refrain from buying when the course is downward. *Pricing* means the endeavour to buy stocks when
they are quoted below their fair value and to sell them when they rise above such value. A less ambitious form of pricing is the simple effort to make sure that when one buys, he does not pay too much for his stocks.

**Growth Stock**

Every investor would like to select the stocks of companies that will do better than the average over a period of years. A growth stock may be defined as one that has done this in the past and is expected to do so in the future.

**Broader implications of the rules for investment**

Investment policy, as it has been developed here, depends in the first place on a choice by the investor of either the defensive (passive) or aggressive (enterprising) role. The aggressive investor must have a considerable knowledge of security values -- enough, in fact, to warrant viewing his security operations as equivalent to a business enterprise. As an investor one cannot soundly become "half a businessman" expecting thereby to achieve half the normal rate of business profits on his funds. Most of the investors do not have the time, or the determination, or the mental equipment to embark upon investing as a quasi business. They should, therefore, be satisfied with the reasonable good return obtainable
in the past from a defensive portfolio, and they should stoutly resist the recurrent temptation to increase this return by deviating into other paths.

The enterprising investor may properly embark upon any security operation for which his training and judgement are adequate and which appears sufficiently promising when measured by established business standards.

Basic concepts relating to Return on Investments:

(i) Types of Interest  (ii) Types of Dividends

(iii) Costs of securities  (iv) Measures of return

*Types of Interest*

From an investor point of view, interest is the money received for the use of certain principal sum. The rate of interest is the ratio of the interest earned in a year to the principal. Simple interest is computed by dividing the total income over a period by the number of years in the period and then dividing this average income per year by the original principal. Such a simple method is ordinarily used only for short-term loans or long-term loans that are made and paid off at par. The method ignores fluctuations in income or a realization of a part of the income only in the final year.
Compound interest is the usual method of calculating rate of return on long-term investments. It is that constant rate of return which if compounded (computed and added to the principal periodically such as annually or quarterly) over the life of the investment would have produced the same total accumulation.

Types of Dividends

Dividends may be classified in several ways. First, on the basis of degree of regularity. Most dividends on common-stock bear no label, and there are no implications as to continuity. A dividend on common stock which is labeled 'regular' by the board of directors when declared has the implication that a similar amount is likely to be declared for payment on following dividend dates. Of course, the board of directors always has the right to modify its dividend policy. An extra dividend carries no implication that the dividend will be repeated in the following periods, although some companies have a policy of paying a regular dividend and supplementing it at intervals, if earnings and the need of the business for funds permit. Another basis of classifying dividends is on the basis of source. Most dividends are paid from the earnings of a company and are regarded as income to the stockholder. A third way of classifying dividends is on the basis of the form of payment. The usual way of paying dividend is in cash. Stock dividends are next in order of
frequency. A last type of dividend is payment in the form of debt obligations. Scrip dividends are short-term promissory notes. Where the dividend is in the form of a debt obligation of the company, the result is essentially that of a declaration of a deferred cash dividend.

Costs of securities

In computing a rate of return, the investor divides the income received by the cost of the investment. Market price represents the current cost of a given security. For an exact yield, the investor would use his total costs of acquisition, including any commissions, fees or other expenses that will enter into his cost. In the case of original issues or securities bought from a dealer, there may be nothing extra to be added to the asked price.

Measures of Return

A first measure of the return earned on an investment is the stated rate of return, or the nominal yield on the face or par value of the issue. It is the interest rate that the corporation promises to pay on the principal of a bond, or the dividend rate on the par value of the preferred stock for which a preference has been given over common stock. A second concept, called current yield, indicates the percentage relation of the cash income from the security to its market price. It is computed by dividing the annual income by the current market price. A third concept,
called net yield, refers to bonds and is also called effective yield, yield to maturity, or true yield. This yield is the mathematically exact per cent rate of return earned by an investor on the amount invested. A fourth concept, usually called investment return rather than yield, is used to study common stock performance. If the return being studied applies to a period of years, the rate is usually expressed as a compound annual rate over the period.

4.3 RISK IN INVESTMENTS

The following are the four major risks or uncertainties that beset the individual when he invests his savings. They are:  

(i) Business risk  
(ii) Interest-rate risk  
(iii) Market risk  
(iv) Purchasing power risk

Business risk

In purchasing securities, any owner assumes a risk with respect to the future financial success and credit standing of the issuer. Some business enterprises encounter difficulties in production or in marketing their products or they have poor financial administration. Output and

sales may decline over a period, the current financial position may become weak, and earnings may dwindle and turn to losses. On the other hand, an enterprise may be in the position just mentioned, but as a result of an increase in demand for its products, or an improvement in management, its sales and earnings may increase substantially. The business risk of an enterprise may be the same for all long-term investors, or it may be decreased for some, and increased for others, depending on the types of securities issued. If only common stock is sold, all investors bear the same risk.

In selecting an investment, an investor has to decide what degree of business risk he wishes to assume. He has a choice, for example, between stable industries with an upward trend and cyclical industries. If an investor chooses to be defensive in his approach, he may limit his risks, and reduce both the chance for loss and, most likely, also the opportunity for gain.

**interest-rate risk**

It may be defined as the fluctuations in market prices of fixed-income securities owing to changes in levels of interest rates. Fixed-income securities mean notes and bonds, mortgage loans, and preferred stocks which pay a definite amount of interest or dividend annually to
investors. Interest is the price paid for the use of money, and like other prices it fluctuates with demand and supply forces operating in the market. The degree of fluctuations in market prices of fixed-income securities resulting from interest-rate depends first on the amount of change in interest rates. Interest-rate risk tends to be minimised when interest rates are very high, and maximised when rates are at a low level, based on the record over a long period of years.

The second factor which affects the degree of fluctuations is the length of period to maturity. The longer the maturity, the greater is the interest-rate risk. One can limit this risk, then, by investing in short-maturity obligations, but this may reduce the income received.

Market risk

There are several reasons for the changes in prices of securities. At a particular point of time, bids or offers for a specific security may be scarce. If a person wants immediate execution of an order to sell or buy in an inactive security, the price may change materially from the last sale and be less favourable than if the broker were given a period of time to execute the order. Another reason is the changing attitudes of investors with respect to future uncertainties. In some periods, investors are eager to undertake considerable risks, and at other times they prefer to
minimise their risk exposure. Investors bid to acquire ownership of the popular securities, and prices that are high in relation to the merits of the issues may be paid. A question arises as to whether these firms will develop earnings sufficient in amount soon enough to justify the prices paid for their stocks. At the other extreme, an industry may be facing problems, such as overcapacity. Because of the temporarily unfavourable outlook, or a change in psychology, disappointed and worried stockholders may persistently press sell orders on the market at a time when buyers are cautious, with the result that prices may become unduly depressed. Market risk tends to be greater for low-quality than for high-quality securities, and for those with inactive rather than active markets. An investor can reduce his exposure to market risk by keeping a part of his assets in forms which are readily available, and thus reduce the likelihood of having to dispose off assets at times when prices may be unfavourable.

*Purchasing-Power Risk*

It is also known as inflation risk. Individuals and institutions that use their income to buy goods and services are greatly concerned over any changes in the purchasing power of their income. Over the long run well-selected purchases of these equity types may increase in market price and offset a price level rise, but this is not certain to occur. Over a
short period, the market value of such holdings may decline, and commodity prices may increase.

*Short Sales*

When an individual sells stock he does not own, in the hope that he may be able to purchase it at a lower price, he is said to "sell short". It may seem odd to sell something not owned, but any speculative transaction, that is, a transaction in which the hope is to profit from a change in price, consists of two parts: a purchase and a sale. In a short sale, the usual time order is reversed, as the sale is made prior to the purchase. Thus Mr. X may ask his broker to make a short sale of 100 shares at Rs.20. If the transaction is made, the exchange rules would require delivery in accordance with the regular requirements applying to other transactions. Mr. X's broker must, therefore, either lend the stock for delivery or borrow it from other broker who has it to lend. If the stock can be bought back for return to the lender at a price sufficiently below Rs.20 to more than cover commissions and other costs, the short sale would produce a profit.

4.4 INVESTMENT PROCESS

The investment process describes how an investor should go about making decisions about marketable securities in which to invest,
how extensive the investment should be, and when the investment should be made. A five-step procedure for making these decisions forms the basis of the investment process:

(a) Set investment policy;
(b) Perform security analysis;
(c) Construct a portfolio;
(d) Revise the portfolio;
(e) Evaluate the performance of the portfolio;

The first step, setting investment policy, involves first determining the investor's objectives and the amount of his or her investible wealth. Since there is a positive relationship between risk and return for sensible investment strategies, it is not appropriate for an investor to say that his or her objective is to make a lot of money. What is appropriate for an investor in this situation is to state that the objective is to attempt to make a lot of money while recognizing there is some chance that large losses may be incurred. Thus, investment objectives should be stated in terms of both risk and return. The first step of the investment process concludes

with identification of the potential categories of financial assets for consideration in the ultimate portfolio. This identification will be based on the investment objectives, amount of investible wealth, and tax status of the investor.

Security analysis

The second step of the investment process, performing security analysis, involves examining a number of individual securities within the broad categories of financial assets previously identified. One purpose in conducting such examinations is to identify those securities that currently appear to be mispriced. There are a wide variety of approaches to security analysis. However, most of these approaches fall into one of two classifications. The first classification is known as technical analysis; those who utilize this approach to security analysis are known as technical analysts. The second classification is known as fundamental analysis; those who utilize it are known as fundamental analysts. In discussing these two approaches to security analysis, the focus at first is on common stocks. Technical analysis involves the study of stock market prices in an attempt to predict future price movements for the common stock of a particular firm. Initially, past prices are examined in order to identify recurring trends or patterns in price movements. Then, more recent stock prices are analysed in order to identify emerging trends or
patterns that are similar to past ones. This matching of emerging trends or patterns with past ones is done in the belief that these trends or patterns repeat themselves; thus by identifying an emerging trend or pattern, the analyst will be able to predict future price movements for that particular stock.

Fundamental analysis begins with the assertion that the "intrinsic" value of any financial asset is equal to the present value of all cash flows that the owner of the asset expects to receive. Accordingly, the fundamental stock analyst will attempt to forecast the timing and size of these cash flows and then will convert them to their equivalent present value by using an appropriate discount factor and dividend discount model. What this means is that analyst must attempt to forecast the stream of dividends that a particular stock will provide in the future, which is equivalent to forecasting the firm's earnings per share and payout ratios. Once the true value of common stock of a particular firm has been determined, it is compared to the current market price of the common stock in order to see if the stock is fairly priced or not. Stocks that have a true value less than their current market price are known as overvalued, or overpriced stocks, whereas, those that have a true value greater than their current market price are known as undervalued or underpriced stocks. The magnitude of the difference between the true value and
current market price is also important information, since the strength of the analyst's conviction that a given stock is mispriced will depend, in part, on it. Fundamental analysts believe that notable cases of mispricing will be corrected by the market in the future, meaning that prices of undervalued stocks will show unusual appreciation and prices of overvalued stocks will show unusual depreciation.

*Portfolio construction*

The third step of the investment process, *portfolio construction*, involves identifying those specific assets in which to invest as well as determining the proportions of the investor's wealth to put in each one. Here the issues of selectivity, timing, and diversification need to be addressed by the investor. *Selectivity*, also known as microforecasting, refers to security analysis and thus focuses on forecasting price movements of individual securities. *Timing*, also known as macroforecasting, involves the forecasting of price movements of common stocks in general relative to fixed-income securities, such as corporate bonds. *Diversification* involves constructing the investor's portfolio in a manner such that risk is minimized, subject to certain restrictions.
Portfolio Revision

The fourth step of the investment process, portfolio revision, concerns the periodic repetition of the previous three steps. That is, over time the investor may change his or her investment objectives, which means that the currently held portfolio may no longer be optimal. Instead, perhaps a new portfolio should be formed by selling certain securities that are currently held and purchasing certain other ones that are not currently held. Another motivation for revising a given portfolio is that over time the prices of securities change, meaning that some securities that initially were not attractive may become attractive and others that were attractive at one time may no longer be so. Thus, the investor may want to add the former to his or her portfolio while simultaneously deleting the latter. Such a decision will depend upon, among other things, the size of the transactions costs incurred in making these changes as well as the magnitude of the perceived improvement in the investment outlook for the revised portfolio.

Portfolio performance evaluation

The fifth step of the investment process, portfolio performance evaluation, involves periodically determining how the portfolio performed in terms not only of the return earned but also the risk experienced by the investor. Thus appropriate measures of return and risk as well as relevant standards are needed.
4.5 THEORIES OF INVESTMENT BEHAVIOUR

Theories of investment behaviour and empirical studies of the investment decisions have been restrained by the lack of data to the examination of investment expenditures anticipated or realised. A consequence of this empirical bias may be the diversion of attention away from the complete decision making process and to the misleading impression that the investment decision is primarily and essentially one of timing and financing investment outlays based on some variant of output are the most prevalent theories. Various theories are discussed below:

*Neo-classical Theory*[^5]

The Neo-classical theory of investment behaviour is based on an optimal time path for capital accumulation. It also implies a theory of cost of capital along the line of Modigliani and Miller’s hypothesis. In these studies, the theory of optimal capital accumulation was employed primarily as a source of possible explanatory variable-interests, relative prices and so on. In these tests of Neo-classical theory, little attention was paid to the measurement of the cost of capital.

**Accelerator Theory**

In accelerator theory of investment behaviour we take desired capital to be proportionate to output as a possible explanation of investment expenditure. Alternatively, actual capital may be represented as a weighted average of all past levels of desired capital. We refer to the latter form of the flexible accelerator is referred to as a distributed lag function with actual capital in a period to a function of desired levels of capital. The average lag of adjustments which represents the average time required for a change in desired capital that persists indefinitely to be translated into a change in actual capital stock. The flexible accelerator mechanism can be transformed into a complete theory of investment behaviour by adding a model of replacement investment and a specification of the desired level of capital. By accounting definition the change in capital from period to period is equal to gross investment less replacement investment. The flexible accelerator provides an explanation of change in capital but not of gross investment.

**The Liquidity Preference Theory**

The Liquidity Preference Theory starts with the notion that investors are primarily interested in purchasing short-term securities. That is, even though some investors may have longer holding periods,
there is a tendency for them to prefer short-term securities. This is because these investors realize that they need their funds earlier than anticipated and recognize that they face less 'price risk' (interest rate risk) if they invest in short-term securities. For example, an investor with a two-year holding period would tend to prefer the rollover strategy, since he or she would be certain of having a given amount of cash at the end of one year, when it may be needed. If a maturity strategy had been followed, then the investor would have to sell the two-year security after one year if cash was needed. However, it is not known now what price the investor would get if he were to sell the two-year security in one year. Thus, there is an extra element of risk associated with the maturity strategy that is absent from the rollover strategy. The only way investors will follow the maturity strategy and buy the two-year securities is if its expected return is higher.

In the liquidity theory of investment behaviour desired capital is proportional to liquidity. In this theory internal funds available for investment expenditures are measured by profits after taxes plus depreciation less dividends paid. The basic premise of liquidity theory of investment behaviour is that the supply of fund schedule arises sharply at the point where internal funds are exhausted. Therefore, the flow of internal funds available for investment is most important in this
theory of investment. This liquidity measure may be converted into constant prices of a given year by dividing the current value of internal funds by the investment goods price index. The resulting measure of liquidity has been suggested as an appropriate measure by Kuh on the grounds that the effects of liquidity can be distinguished from those of output while expected profits as measured by profits cannot be distinguished from output.

Capacity Utilisation Theory

Capacity utilisation theory of investment behaviour examines the gains explaining investment from computing a capacity utilisation index based on output measure. Capacity utilisation model is particularly useful in explaining the behaviour of the industries characterised by lower degree of concentration.

The Market Segmentation Theory

Various investors and borrowers are asserted to be restricted by law, preference, or custom to certain maturities. Perhaps, there is a market for short-term securities, another for intermediate-term securities, and a third for long-term securities. According to Market Segmentation

theory, spot rates are determined by supply and demand conditions in each market. Further, in its most restrictive form, investors and borrowers will not leave their market and enter a different one when the current rates suggest to them that there is a substantially higher expected return available by making such a move. With this theory, an upward-sloping term structure exists when the intersection of the supply and demand curves for shorter-term funds is at a lower interest rate than the intersection for longer-term funds. Conversely, a downward-sloping term structure would exist when the intersection for shorter-term funds was at higher interest rate than the intersection for longer-term funds.

4.6 CONCLUSION

In this chapter various concepts have been explained both from secondary sources and the researcher's own observations. The major areas that have been discussed include meaning of investment, the investment environment, how the term investment differs from the terms savings and also speculation, the objectives of investment and how does one plan one's investments. It also distinguishes the different types of investors such as Aggressive and Defensive Investors. The important theories of investor behaviour namely, Accelerator Theory, Liquidity Preference Theory, Market Segmentation Theory and so on have been presented. This theoretical framework has been taken up with a specific objective of providing greater clarity to the study.