
INVESTMENT DECISION PROCESS

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1. STRUCTURE

- 1.0 Objective
- 1.1 Introduction
- 1.2 Meaning of Investment
- 1.3 Difference between Investment and Speculation
- 1.4 Types of Investment
- 1.5 Investment Decision Process
- 1.6 Summary
- 1.7 Self-Assessment Questions
- 1.8 Suggested Readings

1.0 OBJECTIVE

After reading this lesson, you should be able to:

- a) Define investment and speculation
- b) Divide the investment decision into steps
- c) Understand the various types of investments
- d) Compare the different investment types in terms of risk and the goal of investor

1.1 INTRODUCTION

Every human being wishes to live a comfortable life. A life that is full of facilities, that can take care of not just the expenses of young age but also unforeseen and contingencies arising from the old age. If you are earning today, this is your golden time. Tomorrow you may not be earning. Then how will you maintain yourself financially. To take care of bad times, save and invest as early as possible. It will also help you become financially independent, when you turn 65. Then you do not have to dependent on your children or the government for your needs. So investment is the key to comfortable living. Let us understand the meaning of investment.

1.2 MEANING OF INVESTMENT

The layman meaning of investment can be learnt from the time when our mother used to argue with us and tell us to invest time in studies. She would also tell us that if we sacrifice our time now in studies, we will get a fruitful return tomorrow in the form of better marks and so forth a better career. Investment in terms of finance means sacrifice of rupee today to earn a return of rupee tomorrow. This type of investment is different in the sense that the two

important features, i.e. time and risk are visible. A change from today to tomorrow affect the time, the return on investment in this change becomes uncertain. This uncertainty may persist in equity investment but not in investment in debentures or bonds. Here the return is certain just like the distinction marks by investment in studies.

From monetary viewpoint, there are two kinds of investments namely, the real investment and financial investment. The **real investment** is the investment in physical asset like land, building, machinery, factory etc. For example: a person purchased a house. A house is a real asset. He may use the house for his consumption, i.e. he may dwell in the house. But if he re-sells the house, he will get the return as market value of the house. So the time period for which he had possessed the house or time period for which he had committed his funds in the house (by buying it) was the time period of investment in real asset in expectation of higher return. The **financial investment** is investment in assets which are in 'paper' form or 'de-mat' form. They are nothing but contracts to share the profits of the company. They can be equity stocks or debentures.

1.3 DIFFERENCE BETWEEN INVESTMENT AND SPECULATION

As a layman, the terms, investment and speculation may look alike, and may be used in good and/or bad sense, in financial terms there is a difference between the two. In *investment* it is the value of the stock that changes, generally appreciates. In *speculation*, not the value but the price of stock increases. Let us take the example of an apple tree. You buy a seed of an apple, sow it, water it, wait for it to grow into a tree and finally you sell the apples. The money with which you bought the seed of apple is regarded as investment. It will be speculation when you buy the apple tree itself and sell it in the market at a higher price.

So investment arises when you buy a seedling, wait for it to grow into a tree and sell the ripe fruits for a stream of steady income. It becomes speculation, when you have nothing but profit in your mind, even though short term. Other differences can be discussed in following points:

1. The perspective: The *investment* is made with the intent of keeping it for a long period of time as the investor has carefully analysed the fundamentals before taking the decision. The perspective of the speculation is however short lived. A *speculator* may do a numerous operations in a day in order of buying or selling the stock with just simple hunch or sentiments.

2. The strategy: The investor is a steady learner. He tends to *invest* in a stock, wait for it to become a major, derives benefits from the return and turns it out when it is not performing well. In place of this, he injects another stock in his portfolio and rotates this stock through the same cyclical strategy as was followed for the first one. A *speculator* does not have time or energy to through the fundamental factors behind the stocks available in the market. A simple, sudden rise in prices of any stock kept in his pocket attracts his sentiments and he takes the quick move to turn it out of his portfolio irrespective of the length of the holding time period. He may or may replace it with another stock. The strategy followed by an investor is thus called counter cyclical as compared to cyclical strategy of a speculator.

3. Timing the market: During the times of asset bubble (a situation where the price of a category of assets is rising), *speculative* activity takes place, i.e. people are buying thinking that the prices will go even higher but selling in panic at sudden drop of prices. Compared to this, the *investor* takes his role during the dips. He buys at this time and turns out the stock during the bubbles, to time the market.

4. Components of financial assets: An *investment* can be done in various assets like shares of a company, government bonds, mutual funds or other funds like employee provident fund or Public Provident fund, or a property or even a bank account. The selection of asset depends on the type of income generated by each asset. If the pre-defined rate of return interests you, you shall invest in bonds, preference shares, provident funds or fixed deposits while if you are inclined towards variable return, equity share capital is the avenue. However, the *speculator* is not ranking the assets as per return but as per the price fluctuations. And the market left for him is the market for stocks, bonds, derivatives, currency, commodity and futures and options.

5. Risk and Return: *Investment* is the risk of losing the present money in return of benefit(s) in future. *Speculation* is a high risk of losing maximum or all initial outlay, in return of significant (or no) profits in future.

The following table also spells out some differences between the investment and the speculation.

S.No.	Basis for Comparison	Investment	Speculation
1.	Meaning	Investment is a combination of actions, one that give rise to another in the hope of stream of returns.	Speculation is a single act in the hope of substantial profit.
2.	Decision is based on	An investor takes decision after careful analysis of fundamental factor like performance of the company.	A speculator is moved by overhearing, market psychology or technical charts.
3.	Time horizon	Since investor is waiting for a set of returns, his time horizon is longer.	Since a speculator is only aiming at profit say at a particular moment, his time horizon is shorter.
4.	Risk involved	It is difficult to time the market however, an investor waits for the right move hence his risk is moderate.	An investor jumps on making a profit by doing quick moves hence his risk is quiet high.

5.	Intention of Profit	An investor is concerned about the growth of the company and so the value of the stock.	A speculator is not concerned with the profitability of the company but rise in prices of the stock.
6.	Expected Rate Of Return	As a result the investor is able to increase his wealth to modest levels.	A speculator's return may be high as he takes the quick steps. Most of the time he may be able to time the market.
7.	Nature of Income	A stream of returns may generate stable income for the investor.	Sometimes he may not be able to time the market hence his return may be uncertain and erratic.
8.	Behaviour of participants	An investor is always cautious of his moves and follows a conservative approach.	Since a speculator does not take decision via a careful analysis, he actions tend to be daring.

The golden rule of personal finance, *“Invest everything you don't immediately need, Speculate only with what you can afford to lose.”*

1.4 TYPES OF INVESTMENTS

There are different types of investment assets that can attract an investor. Some are freely available in the market while others are not. These are available at the specific institutions as decided by the government. These investments can be classified into two broad categories as non-marketable financial assets and marketable financial assets. The marketable are further classified as Variable income generating assets and Fixed income generating assets and there are other alternative investments. We begin with non-marketable first as the entire classification is arranged in an order as per the risk factor.

1.4.1 NON-MARKETABLE INVESTMENTS

The non-marketable assets are the entities that have been attracting investment traditionally. The investments in non-marketable assets are mostly secured decisions. The broad categories in non-marketable assets are:

- 1.4.1.1 Bank Deposits
- 1.4.1.2 Post Office Deposits
- 1.4.1.3 Company Deposits

1.4.1.1 Bank Deposits

A Bank Deposit is an account in any bank opened by you, where you can keep (save) your money safely (away from thieves) and for which the bank pays an interest to you as compensation. This is the most convenient way of investing money. A bank provides different

kinds of accounts such as a saving account, a current account, recurring deposit account and term-deposit account (commonly called fixed deposit). While the saving, recurring and term-deposit account returns some annual interest, the current account does not. In the *saving account*, you deposit the money as and when you please. In *recurring-deposit*, you have to deposit a constant amount of money at regular intervals. In *term-deposit account* you can deposit a lump-sum amount and wait for it to mature till a specific time period. The money withdrawn from all the three types of accounts are accompanied with interest compounded annually. The *current account* is like a credit account maintained with the bank, from where you withdraw money even beyond the amount saved in it. This extra amount is provided by the bank with a precondition of returning it after a stipulated time. The bank, however, keeps the saving account of the person as a security for running his current account. The various kinds of deposits with the bank come with the following additional features:

- A term deposit not only provides a higher rate of return compared to other deposits, one can even avail loan facility against it.
- Bank deposit provides both the safety and the liquidity. One can draw money as when he/she pleases by incurring a nominal penalty.
- The interest rate on the saving deposit by scheduled bank is provided at the rate of 4% per annum whereas some private banks like Yes Bank and Kotak Mahindra Bank are offering as high as 6% per annum.

1.4.1.2 Post Office Deposits

The Post Office is an institution that takes care of delivering mails and letters inside and outside the country. It however, provides the facility of deposit account similar to deposits in the commercial banks. They are:

- 1.4.1.2.1 Post Office Savings Account.
- 1.4.1.2.2 Post Office Recurring Deposit (RD) Account.
- 1.4.1.2.3 Post Office Time Deposit (TD) Account.
- 1.4.1.2.4 Post Office Monthly Income Scheme (MIS) Account.
- 1.4.1.2.5 Post Office Public Provident Fund (PPF) Account.
- 1.4.1.2.6 Post Office National Savings Certificates (NSC)
- 1.4.1.2.7 Post Office Senior Citizen Savings Scheme (SCSS) Account.
- 1.4.1.2.8 Kisan Vikas Patra (KVP)
- 1.4.1.2.9 Sukanya Samridhi Account (SSA)

1.4.1.2.1 Post Office Savings Account

One can deposit any amount at any time in the saving account with the post office. A minimum of Rs. 50 is to be maintained in the account. This limit increases to Rs. 500/- when you have the cheque facility. The interest rate is 4% p.a. A minor is permitted to operate his account at the age of 10 years. A deposit and withdrawal can be done through the electronic mode in the CBS Post Office. Even a debit card or ATM card is provided to account holders of CBS Post Office.

1.4.1.2.2 Post Office Recurring Deposit (RD) Account

Similar to recurring deposit in the bank, an equal amount is deposited in this account till the 15-th day of every month. A quarterly rate of interest i.e. 7.3% p.a. is provided (from 1.10.2016). You can withdrawal up to 50% of the balance after one year. The life of this account is 5 years (as per indiapost.gov.in).

1.4.1.2.3 Post Office Time Deposit (TD) Account

Any person can deposit a lump-sum for a fixed time period under his name or his minor child. The time period varies from one year to five years and so also the interest rates. For one year TD Account, the rate is 7.0% p.a., for two years it is 7.1% p.a., for three years, it is 7.3% p.a. and for five years, it is 7.8% p.a. A TD account for five years get a tax benefit under section 80C of Income Tax Act, 1961 from 1.4.2007.

1.4.1.2.4 Post Office Monthly Income Scheme (MIS) Account

It is a popular scheme of the post office. Its aim is to provide regular monthly income to the depositors. A minimum of Rs. 1,500 and maximum of Rs. 4.5 lakh (individually) can be deposited under this account for a period of 5 years. The rate of interest earned 7.7% p.a. which is credited to the post office saving account of the account holder every month. One can withdraw money from this account only after one year.

1.4.1.2.5 Post Office Public Provident Fund (PPF) Account

An individual can open the account with the post office by depositing a minimum of Rs. 500 or maximum of Rs.1,50,000 either monthly or as a lump-sum amount. The rate of interest provided is 8% p.a. The deposit gets a tax deduction under section 80C and the interest amount is tax free. The withdrawal is allowed from the seventh year and loan can be taken from this amount from the third year of opening the account.

1.4.1.2.6 Post Office National Savings Certificates (NSC)

This is not an account but some certificates are issued by the post office and can be taken at a minimum amount of Rs.100/- and maximum amount of Rs.10,000/-. They are secured by the investor till its maturity of 5 years on which he earns an interest of 8.0% p.a. compounded monthly. A deduction under section 80C is available on deposits.

1.4.1.2.7 Senior Citizen Savings Scheme (SCSS) Account

This account is opened by a person who has attained an age of 60 years or more with a minimum amount of Rs.1000/- up-to Rs.15 lakh for a period of 5 years. He can earn at a rate of 8.5% p.a. payable quarterly which can be transferred to the attached saving account with the post office.

1.4.1.2.8 Kisan Vikas Patra (KVP)

It is a certificate issued by the departmental post office in the denomination of Rs.1,000/- to Rs. 50,000/ The amount doubles in a period of 9 years and 4 months. Such an investment also gets a deduction under section 80C.

1.4.1.2.9 Sukanya Samridhi Account

A person or legal guardian can open this account on behalf of a girl child with a minimum of Rs.1,000/- or a maximum of Rs. 1,50,000/- up to the age of 10 years of the child. About 8.5% p.a. interest rate is compounded annually. The account is closed when the child attains the age of 21 years.

1.4.1.3 Company Deposits

Similar to bank, many companies ask for fixed deposits from the public, these are called company deposits. The manufacturing companies, the non-banking finance companies, housing finance companies, financial institutions and the government companies issue such fixed deposits. It is a deposit placed by the investor with the companies for a fixed time period. This time period may vary from 6 months to 7 years, for example: a housing finance company accepts deposits of time period varying from 1 year to 7 years, a manufacturing company's time period may vary from 6 months to 3 years. This deposit carries a prescribed interest rate payable monthly, quarterly, yearly or as per maturity of the deposit. The investor shall receive this interest as cheque or through Electronic Clearing System (ECS). These companies may provide as low as 6.75% p.a. to high as 12% p.a. interest depending on the time period of the deposit. However, there is a risk factor attached to it. These investments are un-secured in nature. This means that if a company defaults, i.e. goes bankrupt, there is no liability on the company to repay the principal amount of the investor. Also, the investor cannot sell the documents to recover his capital from the market as there is no capital appreciation of these documents.

If you wanted to invest in company deposit, you would consider these points in mind:

- i. Ignore the deposit schemes of companies that are not 'A' rated by the regulatory authority.
- ii. Choose a growing company which reinvests the interest at the prevailing coupon rate and gives you a lump-sum amount (a better yield) at one go.
- iii. Invest in company that are not only reputed but also provide prompt services like issue of timely interest warrant.
- iv. Involve a financial planner or do not invest in companies that offered interest rate higher than 15% p.a., or the companies not paying the dividend to the shareholders regularly and/or their balance sheet are showing losses.
- v. Avail the TDS benefit when the interest earned exceeded Rs. 5000/- in one financial year.

1.4.2 MARKETABLE INVESTMENTS

The following are freely available in the market either in de-mat or physical form. That is, one can easily buy or sell them in the market. They are:

- 1.4.2.1 Treasury bills (T-bills)
- 1.4.2.2 Commercial paper (CP)
- 1.4.2.3 Certificates of deposit (CD)
- 1.4.2.4 Commercial bills (CB)
- 1.4.2.5 Bankers' Acceptances
- 1.4.2.6 Repurchase Agreements

1.4.2.1 Treasury Bills (T-Bills)

For convenient money or short term liquidity, treasury bills are issued by the government authority, say RBI. Through these instruments the government raises the money to fill the gap between the receipts (revenue and capital) and expenditures. The Treasury bills are called T-bills as a short form. These bills are negotiable instruments. The risk factor is not inherent in them due to shorter tenure of these instruments. They have an assured yield, low-transaction cost and are repaid at par on their maturity. The issuer of the T-bill accepts the competitive bids and allocates bills to those offering the highest prices. The non-competitive bid is an offer to purchase the bills at a price that equals the average of the competitive bids. The tax is not deducted at source on the yield provided by T-bills. An investor can buy them at a lower rate (discount rate) than their face value. These bills are generally used by the government to decide the statutory liquidity ratio. There is variety of such T-bills. The tenure varies from 91 days to 364 days. These bills are auctioned by RBI. Like 91 days T-bills are auctioned on every Friday, the 364 days T-bills are auctioned on the Wednesday preceding the reporting Friday. Though they are short lived securities, the minimum amount at which they are available is Rs. 25,000 or its multiples.

For understanding sake, there are three categories of T-bills: Tap bills, Adhoc Bills and Auction Bills. The **Tap bills** could be bought from RBI at any time at an interest yield of 4.663%. The **Adhoc Bills** were created in 1955 to take care of the monetisation deficit of the central government. The monetisation deficit of the government is the increase in reserve bank credit to the government. About 50 crores on Fridays and Rs. 4 crores on other days were allowed to be maintained with RBI. Whenever the cash fell below this limit, the government would replenish by creation of adhoc bills. Ad hoc 91-day T-bills was created to replenish the government's cash balances with Reserve Bank. These were just the accounting measure in the RBI's books in respect to the government. Government was not obliged to pay any interest on these bills. In April 1997, they were discontinued along with Tap bills and a system of ways and means advances was introduced to accommodate temporary mismatches in the government of India receipts and payments.

The **Auctioned T-bills** permitted the Reserve Bank to receive bids in an auction from various participants and issue the bills subjecting to cut-off limits. The yield of these instruments was market determined. These bills were neither rated nor could they be rediscounted with the Reserve Bank. At present, RBI issues T-bills of the following maturities: 14 days, 91 days, 182 days and 364 days and they are auctioned T-bills.

1.4.2.2 Commercial Paper

These instruments are issued by large corporations directly to the investors or through an intermediary. They are unsecured in nature and are short lived promissory notes. Like T-bills, they are issued at a discount but they are riskier than the T-bills. The maturity time period of Commercial paper generally ranges from 30 days to 60 days or less. This time period is quiet less than the one for T-bills. Due to this factor the commercial papers are not that liquid and so once issued cannot be easily bought or sold in the market.

1.4.2.3 Certificates Of Deposit (CDS)

The Certificate of Deposits is similar to deposits but is negotiable. It is bearer security and both the principal and interest is paid at the end of the maturity period. The duration of this security is very short from one month to six months. However, a security with floating rate or a fixed coupon is a long term security extending up to 5 years with sub-periods of 6 months each. Interest that is fixed for such security is based on T-bills or prime rate. In India, CDs are being issued since 1989 by either the banks or the dealers to the investors. They are called deposits because they are bank deposit accounts that are transferable. CDs are marketable or negotiable and therefore they are also known as Negotiable Certificates of Deposit.

1.4.2.4 Commercial Bills (CB)

As the name says, “commercial bill” is an instrument issued by the seller (drawer) on the buyer (drawee) for the value of goods delivered by the seller. This bill is meant for commercial purposes and likewise the time period of maturity is not long as seller cannot wait beyond 90 day time period. These bills are of 30 days, 60 days or 90 days maturity.

If the seller is in need of funds, he may draw a commercial bill and send it to the buyer. The buyer can either pay him directly or ask the bank to pay on his behalf. In such a case, the bank will charge a commission for the acceptance of the bill. The bank then promises to make the payment if the buyer defaults. The seller can sell this bill in the market and once in the market, it henceforth becomes the marketable investment. Usually, the seller will go to the bank for discounting the bill. Discounting the bill means receiving the payment at a lower rate or at par (without considering interest in it). Bank takes out the service charges from the face value of the bill and pays the rest to the seller. The commercial bill is however not that popular because of better cash credit schemes available with the banks.

1.4.2.5 Bankers' Acceptances

To facilitate the commercial trade transactions, Banker’s acceptance was created. Through this, the commercial trade transaction that occurs on credit is taken care of. The bank accepts to repay a loan to the holder of the instrument in the event of default by the debtor. Like T-bills banker’s acceptances are short-term fixed-income securities. They are however issued by FIs where the guarantee is given by the bank. Since banker’s acceptance is meant for a sole purpose, they are not very popular or standardised to be actively traded in the market.

1.4.2.6 Repurchase Agreements

The Repurchase agreements are also called Repo. The buyers and sellers dealing in government securities use repos for overnight borrowings. It is an agreement between the seller of a government security with the buyer to repurchase the security sold to the buyer at an agreed future date and at an agreed price. The duration is smaller than the normal government security like T-bills. It is purchased or repurchased overnight or within a span of 30 days. Since this security being transacted is a government security, it carries a very low risk. There are various kinds of such repurchase agreements. They are Reverse Repo and Term Repo. The two other variations differ in the dealings and the time period. The **reverse repo** is the reverse of normal repo wherein the buyer agrees to sell them back to the seller at a

higher price on a later date. The **term repo** is just the same as normal repo with a difference in timings of dealing. Instead of overnight, the time period is 30 days.

1.4.3. FIXED INCOME SECURITIES

These are also the marketable securities, traded in capital market. The return however is either a fixed (constant) amount or a rate that is fixed at the time of purchase of these securities. Like other marketable securities, their time period is also fixed. They are two kinds of securities: Long-term debt securities and Preferred stocks.

The Long-term debt securities are like long-term loans that are to be repaid as per the terms of contract. Long term securities' maturity time period is usually more than one year. The buyer (that is the investor) of these securities lends money to the issuer of the security, who in return undertakes an obligation to pay interest on this loan and repay the principal at a stated maturity date. For an investor, such securities are "safe" investments. Such securities are also called "bonds". The bonds like government securities, Saving bonds, Private sector debentures, PSU bonds are issued by different authorities. Some are issued by the government, some by municipals and some by companies or their appointed agencies. The bonds are generally issued at the *par value* and this is the amount that is repaid at the bond maturity.

Preferred stocks are another fixed income securities wherein dividend income is given to the shareholders at a pre-specified rate after a fixed interval of time. This definition seems similar to that of a bond. The difference however between the two instruments is in terms of priority. Whenever the payment of the principal or dividend amount is made, the preferred stockholders are paid after the debt securities holders but before the common stockholders. This scenario remains the same even in case of liquidation of the company.

The preferred stock is different from common stock holder. The dividend on preferred stock if not paid in the same year gets accumulated for the next year, under cumulative preferred stock. Further the preferred stockholder is not given the rights to vote in AGM unlike common stockholder.

1.4.4 VARIABLE INCOME SECURITIES

Such marketable securities do not return fixed income or pre-decided return. Instead they give higher return or lower return based on company's performance (as dividends) or the mood or the psychology of the investor in the market (as capital gain). Equity share- holders are given the share in profit as a last receiver, the investor can earn high or low return according to the balance profit left with the company. Since both equity shares and the mutual funds these are tradable in the market, the investor can sell these securities and earn a capital appreciation in the form of capital gain.

1.4.4.1 Equity Shares

The equity shares are the instruments that give the ownership rights to the investor. This means that the investor not only earns the return from the company but also bears the risk (the risk of not receiving any payment in the year of loss or of less profit). There are various

terminologies associated to the capital issued under equity shares. The first is the *authorised share capital*. This is the amount of money that a company *can issue* as per its MOA, memorandum of association (an official company's document). The amount of money that the company *actually offers* to the investor is called *issued capital*. And the portion of this capital that has been *subscribed by the investors* is called the *paid-up capital*. The *face value* of the share is provided in the MOA of the company. This is the minimum value of the share that an investor is expected to give to the company to fund the business. This value is generally a nominal amount varying from ₹1.00 to ₹100. The most common denomination is ₹10/-. When the *issue price* exceed the par value (i.e. the face value), the excess amount is called the *share premium*. The price that an investor pays to purchase the share of stock is called the *market value* or the *share price* which later on help in determining the trend in the share market. The market value is determined by the forces of demand and supply, i.e. by buying and selling the security in the secondary market. The market value is also determined by the psychology and competing power of investors than by the value of share at the time of its issue. The *book value* is the price of the share that is recorded in the books of accounts. This is not the same as market value but calculated as per the value of items recorded in the books. This is equal to the residual equity capital (after summation of paid up capital and reserves) over total number of outstanding equity shares.

Equity shareholders are called the owner of the company. They have the right to elect the directors and vote on each resolution passed by the company. However, in practice, the equity shareholders are scattered and indifferent to the affairs of the company. Equity shareholders have the pre-emptive right to buy the additional shares offered by the company. The company will first offer the additional shares its existing shareholders, which will be issued to them on prorata basis. As the equity shareholders have the residual claim to the incomes of the company (i.e. that get tax free dividend from profits after paying the income to preference shareholders), they have residual claim over the assets in the event of liquidation. All the stakeholders like the loan holders, the debenture holders, the preference shareholders and all the remaining creditors will be offered to claim first. Whatever is left is to be claimed by equity shareholder.

1.4.4.2 Mutual Funds

A mutual fund is a fund where it pools the money of many investors and invests on their behalf in the shares or in debt or in money market instruments. This is an alternative investment method to invest money in variable income or fixed income securities and other types of securities. And accordingly, there are three kinds of schemes: equity schemes, debt schemes and balanced schemes. While equity oriented aim at the growth of investment, debt schemes bear fixed returns, the balanced scheme invest partly in stocks and partly in fixed income securities. The money market schemes invest in short term securities like government securities. The balanced funds are those that combine equity and bonds in the same fund. Looking from time period, there are two types of funds namely, the Open Ended Funds and the Closed Ended Funds. The **Open Ended Funds** keep the exit time and the entry time open to the investor. The investor is free to take this decision. The **Closed Ended Funds** have a lock-in period after which the investor is allowed to exit the scheme. It is the closed ended funds that are listed on stock exchange for buying and selling purposes. From risk point of view, there

are conservative funds, blue-chip stock funds, sectoral funds, funds with modestly growing income and funds that take big risks to give big returns.

The mutual fund is generally an AMC, the asset management company that is regulated by SEBI. The NAV or the net asset value is computed by the fund manager at the end of every business day. They are the net asset value per unit of the fund. That is the value of all the securities in the portfolio in a day, net of expenses divided by the number of units in the fund. The expense ratio is the ratio of the expenses met by the fund and the assets in the fund. The expense may be administrative expenses, salaries, advertising expenses, brokerage fee. If the expense ratio is 1.5%, it means ₹1.50/- is AMC charges for every ₹100/- invested with the fund. The more the assets in the fund, the lower is the expense ratio. An investor merely requires ₹500/- to purchase a scheme under the fund. Besides the dividend that the investor receives is 100% tax exempt. However the short term capital gain attracts 15% tax and no tax is applicable on long term capital gain from equity fund. From a debt fund both the short term capital gain and the long term capital gain attract an income tax.

1.4.4.3 Derivatives

There is another instrument called a derivative. It is called so because its value is dependent on the value of some underlying asset. There are two such kinds namely futures and options. A **future contract** is an agreement to purchase an asset when he is in long position, at some future date on a pre-specified price. And the person selling in such an agreement is said to have a short position. An **Option** gives the holder the right (not the obligation) to buy or to sell an asset or security on a certain date at a pre-specified price.

1.4.5 OTHER INVESTMENT ALTERNATIVES

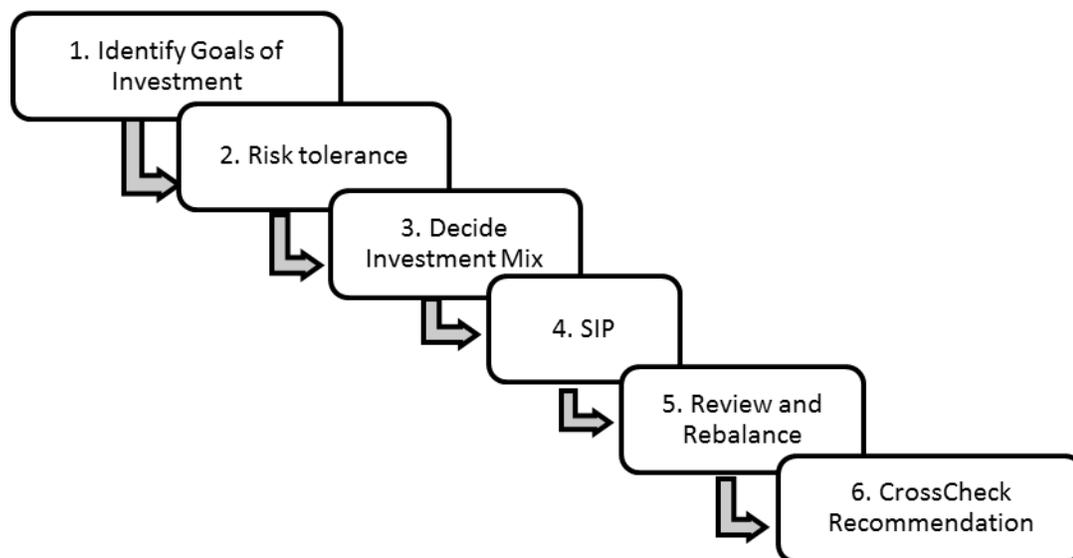
Coming out of the buying and selling game, there are alternatives that provide the investor not just return but also protection. These instruments are called **insurance policies**. They provide the protection to the investor by returning him sum assured after the lapse of a time period either at the surrender or at the maturity. They may also provide protection to investor's dependent in the event of death or the critical illness of the investor by giving the dependents, the sum assured.

At the material front, one can invest in real estate or precious object or other commodities. The investment in **real estate** requires huge capital and so only the affluent investors become interested in it. They are likely to show interest in commercial properties, agricultural land, semi-urban land or a holiday resort. The less affluent will invest in real estate property only when they would like to live in it. Such a property would then be a residential house property. The **precious objects** are small in size compared to real estate. Like real estate, they have high value in monetary terms. They are gold and silver, precious stones and antiques. The precious metals like gold and silver are highly liquid especially in the times of trouble and a good hedge against inflation. They look beautiful when changed into an ornament. This satisfies the aesthetic hunger of the investor. However at the tax front, no advantage is given to the investor. The precious stones like diamonds, rubies, pearls, sapphires also appeal the

investors but they are highly illiquid assets. Once invested, it is not easy to find a buyer for the stone without off-course major price discount. The paintings and antiques also appeal the investor. The antique requires the investor “Certificate of Registration” and they cannot be easily sold without informing the registering authority. The antique grow in value over time. Only an investor, who is patient enough, will keep it with him, wait for price appreciation and sell them off in the market. The **commodities** are smaller objects. They are also traded in the stock exchange just like equity shares.

1.5. INVESTMENT DECISION PROCESS

Like any other decision process, the investment by an individual also requires careful analysis of following steps. They are:



- 1) **Goals and objectives of the investor:** Before taking any decision, it is good to sit down and identify the goals keeping in mind the present financial situation. You may be doing this for the first time but it is as necessary as living a life because this decision will decide your future. It is necessary to study the facts about savings and investment and maintaining them in the market to reap their benefits.
- 2) **Risk tolerance of the investor:** this is the second basic step before decision making. This is important decision because investor plans to give away his hard earned money in hope of the return but the chances are that he may not get back his principal amount or lose some of it. Like saving accounts in post office or FDs, money invested in securities is full of risky possibilities. Should the risk be eliminated all-together, may be the question then. No, higher the risk, greater is the possibility of higher return. A return much more than you can earn via interest from fixed deposits. If your financial goal is a long term then you can play a risky business but with a short term goal, investment in liquid securities would be considered genuine option.

- 3) **Scrutinise different kinds of investments and select an appropriate mix:** there are different kinds of investment alternative as spoken above. The return among these assets move up and down under different market conditions and the movement of all the assets are not in same direction. These can be analysed by using fundamental and technical analysis. The following can be sub-points in deciding the appropriate mix:
- a. **Don't put all your eggs in one basket:** if you invest heavily in stocks or mutual funds in the hope of high return, you will be exposed to significant risk especially in the times of company going into liquidation. In such an event, you will lose out all your money. Therefore picking the right group of investments among different categories is the best approach. This is called diversification.
 - b. **Contingencies:** the emergency may occur any moment of time. To entertain this, you must have a separate account to cover during say sudden illness or accident or some people may keep 50% of their savings in the bank and with the rest they play in the market.
 - c. **Pay the debt:** If you are incurring a debt, you should repay that debt or loan, before thinking of investing.
- 4) **Systematic investments:** Regular investments with the same amount of money each time helps you in buying more when the prices are more and less and its prices are high. This approach protects you from the risk of Investing in lump-sum at the wrong time.
- 5) **Review your portfolio and rebalance:** one should keep revising the portfolio to ensure that the portfolio does not overemphasise one or more asset categories and to keep the risk level at the controllable limit. One can revise the portfolio by setting a time limit say once in six months or by cutting the winner stock and adding more of the loser stock. This rebalances the average cost and also paves way to buying at low prices and selling at high prices.
- 6) **Crosscheck the recommendations:** whenever you are lured to invest, either by popular a scheme or a news, check the background of the recommendation with an unbiased source like your trusted friends and family members before investing.

1.6. SUMMARY

1. The investment is a kind of sacrifice of rupee today to earn a return of rupee tomorrow. To earn a rupee, one can invest in real assets or financial assets. The investment in real assets is called real investment and so is true for financial investment.
2. The **real investment** is the investment in physical asset like land, building, machinery, factory etc. For example: a person purchased a house. The amount he used to purchase the house is called investment as he would derive the return in future by either selling the house in future or by himself dwelling into it.
3. The **financial investment** is investment in assets which are paper documents in physical form or 'de-mat' form. They are the contracts between the investor and the company where the investor agrees to pay some money to the company and in return company agrees to share their profits with the investor.

4. The **speculation** is slightly away from investment. It is distinguished on the basis of the attitude and motive of the investor. When he is concerned with only the profit he is making by buying and selling stock in short time period, it is called *speculation*. It becomes **investment** when the investor is concerned not just with his profit but also the growth of the company whose stocks he has bought and he doesn't intend to sell these stocks in short run.
5. There are different types of investments: in marketable securities and non-marketable securities, in fixed-income generating securities and variable-income generating securities and risky securities and risk-free securities. Besides this there are alternative investments like investment in insurance policies, commodities, and real-estate and precious objects.
6. The investment in different types, involve a number of steps that are defined in **investment process**. From identifying the goal to understanding the risk tolerance and the right mix for an investor, the frequent reviews and cross check of recommendation entail the investment process.

1.7. SELF-ASSESSMENT QUESTIONS

Q1. Indicate the following as True or False.

- i. A speculator is a short-lived person always being concerned about his profit.
- ii. A speculator studies the fundamental and technical factors before taking a buying decision.
- iii. An investor buys during dips and sells during the bubbles.
- iv. There is no difference between term-deposit account and fixed deposit account with the bank.
- v. Senior citizen saving scheme account is opened by a person in the age of 65 years with a minimum amount of Rs. 1,000/- with the post office.
- vi. A person can open sukanya samridhi account on behalf of his child (either son or daughter) with a minimum amount of Rs. 1,000/- with the post office.
- vii. Commercial paper is another name of commercial bill.
- viii. The *face value* of the share is provided in the Articles of Association of the company.
- ix. Equity shareholders are called the owners of the company.
- x. One should always put all the eggs in one basket while investing.
- xi. A mutual fund is a fund where it pools the money of many investors.

Q2. Fill in the blanks:

(physical asset, rupee, share, saving, current, recurring deposit, term-deposit account, company deposits, Auctioned T-bills, Repo, Preferred stocks, issue price, share premium)

- i. Investment in terms of finance means sacrifice of _____ today to earn a return of _____ tomorrow.
- ii. The real investment is the investment in _____ like land, building, machinery, factory etc.
- iii. The financial investment is nothing but contracts to _____ the profits of the company.

- iv. A _____ may do a numerous operations in a day of buying or selling the stock with just simple hunch or sentiment.
- v. A bank provides _____ account, _____ account, _____ account and _____ account.
- vi. Similar to bank, many companies ask for fixed deposits from the public, these are called _____.
- vii. The _____ permitted the Reserve Bank to receive bids in an auction from various participants and issue the bills subjecting to cut-off limits.
- viii. The Repurchase agreements are also called _____.
- ix. _____ are another fixed income securities wherein dividend income is given to the shareholders at a pre-specified rate after a fixed interval of time.
- x. When _____ exceed the par value (i.e. the face value of the equity share), the excess amount is called the _____.

Q3. Answer the following in one sentence:

- i. What is investment?

- ii. What is real investment?

- iii. What is financial investment?

- iv. What is speculation?

- v. What is marketable security?

- vi. What is non-marketable security?

- vii. What is fixed income security?

- viii. What is variable income security?

- ix. After how much should the investor review his investments?

Q4. Long Questions.

- i. What is speculation? How is it different from investment?

- ii. What are different types of investment categories? Discuss briefly the types under each category.

- iii. What are the different types of marketable securities? Discuss them.

- iv. Discuss the different types of non-marketable securities. Would it be right to say that they are risk-free securities?

- v. What is the difference between the risky investments and risk-free investments?

- vi. What are different types of terminology used when a company raises capital through equity shares? In which category can we place the equity shares, risky or risk-free investment?

- vii. Discuss the various investment options available with the post office.

- viii. What are different kinds of accounts one can open with a commercial bank? Further, rank each kind of account according the interest rate available with a nearby bank.

- ix. Discuss differences between closed ended scheme and open ended scheme in reference to mutual fund investments.

- x. What are the different steps involved in taking an investment decision? Discuss.

1.8 SUGGESTED READINGS

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LESSON 1

FINANCIAL DERIVATIVES

Dr. Abhay Jain

1. STRUCTURE

- 1.0 Objective
- 1.1 Introduction
- 1.2 Participants in Derivative Market
- 1.3 Types of Financial Derivatives
- 1.4 Difference between Forward and Future Contracts
- 1.5 Valuation of Future Contracts
- 1.6 Options Contract
- 1.7 Types of Options
 - Call Options, Put Options, Naked and Covered Options, American and European Options, Stock, Index, Interest rate and Currency options
- 1.8 Other Options Valuation Models: Black & Scholes Model and Binomial Model
- 1.9 Difference between Futures and Options
- 1.10 Derivative Market in India
- 1.11 Summary
- 1.12 Self-Assessment Questions

1.0 OBJECTIVE

After studying this chapter, you should be able to:

- (i) Understand the concept of Derivatives and its various types
- (ii) Differentiate forward and future, future and options contract
- (iii) Compute the fair value of Futures and Options and its types.

1.1 INTRODUCTION

Derivative is a financial instrument that offers a return based on the performance of some underlying asset. The underlying asset may either be a financial instrument like equity, gold, currencies, real estate or an interest rate, indices etc. The derivative transactions are settled with the difference in values at a specified date. These are used mainly to protect the risk of variation in price level where an investor can transfer the undesired risk at a price to the other party who intend to take that risk.

Securities Contracts (Regulation) Act, 1956 defines derivatives as under:

“Derivatives” includes-

- (A) a security derived from a debt instrument, share, loan, whether secured or unsecured, risk instrument or contract for differences or any other form of security;*
- (B) a contract which derives its value from the prices, or index of prices, of underlying securities.*

From the above definition, it can be observed that derivative itself is a contract between the parties where the performance of derivatives depends on the performance of the underlying assets. The aim of entering into derivative transactions is to hedge the risk of price fluctuations over a certain period. These contracts are settled at future date with the difference in price.

Let us take an example of a farmer who is producing sugarcane for the traders to make crystal clear sugar. Both the parties (i.e. farmer and trader) are highly concerned about the fluctuations in the price of sugarcane. If the price of the sugarcane falls, the farmer would be at disadvantageous position and if the price of the sugarcane rises, the trader would be at disadvantageous position. In order to protect themselves from the price fluctuations, they enter into a contract under which the farmer is willing to sell its produce at certain price at future specified date. Suppose the current market price of sugarcane per quintal is ₹ 100/- and the contract has been entered at ₹ 115 per quintal for three months. This contract is said to be a derivative contract as the price of ₹ 115 per quintal has been derived from the existing market price of ₹ 100/-.

1.2 PARTICIPANTS IN DERIVATIVE MARKET

As mentioned earlier, the motive behind entering into derivative contract is to hedge the risk of price fluctuations. However, the derivative instruments are also widely used for speculating purposes. Moreover, if there is any mismatch in the pricing of derivative instruments, the arbitrage process follows till equilibrium in prices is restored. There are three categories of participants in derivative market that are:

- (i) Hedger** is the trader who uses financial derivatives to have protection against price fluctuations. Thus, he owns financial derivatives instruments to reduce or eliminate the price risk of an underlying asset.
- (ii) Speculators** take extra leverage and make quick gains on the basis of their futures price movement analysis. They undertake high risk and increase the apprehensions of both profit and loss.
- (iii) Arbitrageurs** are the player in the derivative markets who take advantage of price differential in two different markets. The process of arbitrage continues till the equilibrium in prices is restored.

1.3 TYPES OF FINANCIAL DERIVATIVES

Here, the derivative derives its value from an underlying asset which is a financial asset or instrument such as bonds, stock, currency, interest rates, index etc. These financial derivative

contracts are generally classified as Forward Contracts, Future Contracts, Option Contracts and Swaps. The first three types of derivative contracts are discussed below:

Forward Contract

A forward contract is a bilateral agreement between parties to buy or sell an asset at future specified date at a price prevailing in the market today. Under the forward contract, both the parties are required to perform their respective obligations and in case of default, other party has a right to opt for the remedy of compensation. These types of agreements are merely the commitment to perform their obligations in future and not provide a means to hedge the risk against fluctuation in price level. The forward contracts are basically prevalent for agricultural produce in India and may or may not be transacted with the help of stock-exchange as intermediary. The parties to forward contract make agreement according to their needs, suitability and requirement with no provision of set-off by a counter contract. Thus, it represents a non-standardised tailor-made form of contract with non-transferable feature.

Future Contract

Future contracts are modified version of forward contract. These are the contracts where parties agree to buy or sell the asset (may be physical asset or financial asset) at specified price at specified future date. These contracts are traded through the stock-exchange and recognised as standardised contract with obligation to perform their respective obligations at specified future date. The risk of default is absent as the stock-exchange acts as an intermediary and guarantees settlements of the value with the help of clearing house. Here, the investor can offset his position by entering into a counter transaction before the maturity of the future contract. The settlement of future contract can either be done through delivery or cash. Negligible number of future contracts are settled through delivery where the buyer pays the amount and the sellers makes the delivery as per the terms and conditions of the contract. However, most of the transactions are settled through cash system where the price differential is settled. For example, in case of Index Future Contracts, the settlement can be done only through differential cash as there is no physical availability of an Index in the stock-market. The future contracts may be Index based futures, interest rate futures, stock futures, currency futures etc.

1.4 DIFFERENCE BETWEEN FORWARD AND FUTURE CONTRACTS

Both the contracts seem to be similar as they pertain to agreement to sell or buy an asset at specified price at specified future date. However, a number of differences exist between the two contracts that are discussed below:

- (i) **Standardised Contracts:** The forward contracts are non-standardised contracts as done privately between the parties at their own terms and conditions whereas the future contracts are standardised contracts traded on stock-exchange with regulations.
- (ii) **Default Risk:** The forward contracts are tailor-made contracts and therefore, the chances of defaults by the parties become high whereas under future contracts, the chance of default is negligible as dealt with the help of clearing house that guarantees the transactions settlement.

- (iii) **Hedging/Speculation:** The hedgers are interested in forward contract whereas speculators are interested in future contracts.
- (iv) **Margin Money:** Since the forward contracts are non-standardised, the margin money requirement doesn't arise. However, in future contracts, the margin money is to be deposited by both the parties with the stock-exchange to enter into future c contract.

1.5 VALUATION OF FUTURE CONTRACTS

At what price can a future contract be purchased or sold emphasizes the valuation of future contracts is to be done. In other words, the valuation of futures is done and compared with the market price to decide whether to buy or sell it or not. Therefore, the fair price of the futures contract required to be determined with the help of Cost of Carry Model. 'Cost of Carry' is generally the difference between the prices of future contract and spot price of the underlying asset where, the price of future contract exceeds the spot price of underlying asset. The cost of carry depicts the cost of holding the assets minus the income received from it during the tenure of the future contract. The valuation of future contract can be done on the following three different situations based upon payment or non-payment of income from an asset:

- (1) When the underlying asset provides no income:

$$F = S \times e^{rt}$$

- (2) When the underlying asset provides known income:

$$F = (S-I) \times e^{rt}$$

- (3) When the underlying asset provides known income yield:

$$F = S \times e^{(r-q)t}$$

Where

- F = future price
- S = spot price of the underlying asset
- e = 2.71828 (base of natural logarithm)
- r = rate of interest per annum compounded continuously
- t = time duration of the future
- I = present value of expected income
- q = income yield

If the calculated price of a futures contract is greater than the actual market price, an investor should buy the future contract as it is situation of under-priced futures contract. In case of calculated price of future contract is less than the actual market price, an investor should not buy the futures contract as it is a situation of over-pricing of the futures contract. Also, there may be situation where both the prices are equal; it is a situation where the prices are correctly placed.

Example 1: [When the underlying asset provides no income] The shares of X Ltd. are available in the market at ₹ 1200 per share. The 3 months futures contract is available at ₹ 1220 per share. Should an investor should buy the futures contract given that the risk free rate of interest is 16% p.a.

Solution.:
$$F = S \times e^{rt}$$

$$= 1200 e^{(0.16)3/12} = 1200 \times e^{0.04} = 1200 \times 1.04081 = ₹ 1248.97$$

Since the calculated price ₹ 1248.97 is higher than the available price of ₹ 1220, an investor should buy the future contract as it is a situation of under-pricing of the futures contract.

Example 2: [When the underlying asset provides known income] The value of 12-months NIFTY Futures Index is 6400 and continuously compounded at risk free rate of 12% per annum. The index is expected to declare dividend of ₹ 150 at the end of the year. Calculate the price of one futures contract if lot size is 50.

Solution.: First of all, present value of dividend is required to be calculated. It can be calculated with the help of either $PVF_{(r,n)}$ or ‘e’ factor. The value of ‘rt’ is to be taken negative to calculate present value of dividend.

$$I = S \times e^{-rt} = 150 \times e^{-(0.12)12/12} = 150 \times 0.886920 = 133.038$$

$$F = (S - I) \times e^{rt} = 50 \times (6400 - 133.038) \times e^{0.12} = 50 \times 6266.962 \times 1.12750$$

$$= ₹ 3,53,300$$

Example 3: [When the underlying asset provides known income] A share is available in the market at ₹1000. Dividend of ₹ 50 is expected to be given after 6 months and 12 months. If the risk free rate is 10%, calculate the value of 12-months futures.

Solution.: First of all, present value of dividend is required to be calculated.

$$I = S \times e^{-rt} + S \times e^{-rt}$$

$$I = 50 \times e^{-(0.10)6/12} + 50 \times e^{-(0.10)12/12}$$

$$I = 50 \times e^{-(0.05)} + 50 \times e^{-(0.10)} = 50 \times 0.951229 + 50 \times 0.904837 = 47.56145 + 45.24185$$

$$= ₹ 92.8033$$

Now, $F = (S - I) \times e^{rt}$

$$F = (1000 - 92.8033) \times e^{0.10} = 907.1967 \times 1.10517 = ₹ 1002.61$$

Example 4: [When the underlying asset provides known income yield] The value of 4-months NIFTY Futures Index is 3200 and continuously compounded yield is 3% per annum and continuously compounded risk free rate of 9% per annum. Calculate the price of one futures contract if lot size is 100.

Solution.: $F = S \times e^{(r-q)t}$

$$= 3200 \times e^{(0.09-0.03)4/12} = 3200 \times e^{(0.02)} = 100 \times 3200 \times 1.02020 = ₹ 3,26,400.64$$

1.6 OPTIONS CONTRACT

An options is a contract between buyer and seller that provides a right to the buyer (holder) for purchasing or selling an underlying asset on or before a specified date at a predetermined price. The buyer and seller of the options contract are called options holder and options writer respectively. Under an options contract, the buyer has the right of option to honour the transaction or may allow it to lapse. In other words, the options holder (buyer) has the right but no obligations and the option writer has the obligation to abide with the decision of the buyer but not having any right. For holding a right on options transaction, the buyer has to pay some price, known as options premium, to the seller of the options irrespective of the fact whether the options contract would be honoured or not. In case, the market conditions are not favourable to the holder of the options, the right is not exercised. In that case, the options premium becomes the gain of the seller of the options.

Terminology of Options

Since options contracts are special type of contracts, the terminology used in these types of contracts are quite different. Some of the basic terminologies used in these contracts are as follows:

- (a) **Strike Price:** It is the specified price at which the underlying asset can be bought on or before the expiration date. It is also known as exercise price. On the specified date or expiration date, the market price of the underlying asset may be different from the strike price. The decision to exercise or not to exercise the right to buy depends upon the strike price and actual price on the date of expiration of options contract. If the option holder gains by exercising the right, it is termed as ‘in the money’ and in case the option is not exercised, it is termed as ‘out of money’. At no profit or no loss situation i.e. at break-even level, it is termed as ‘at the money’.
- (b) **Option Premium:** In order to purchase the right to buy or sell, the holder of the options has to pay certain amount to the seller or writer of the options, known as options premium. It’s a one-time payment that is non-adjustable to the seller at the time of entering into contract for availing such right. In case, the right is not exercised on expiration date, the premium is not refunded to the buyer and to be treated as gain of the seller from the options transaction.
- (c) **Expiration Date:** It is the last date for exercising the options right. After the last date or expiration date, the options contract ceases to exist and the buyer loses his right to buy the options contract.

1.7 TYPES OF OPTIONS

The options can be classified as follows:

- (i) **Call option:** It is a contract where the holder of the options contract has the ‘right to buy’ an underlying asset at a specified price on a specified future date. The seller or writer of the options has the obligation to sell. The call options are entered where the

buyer has the fear that the price of the underlying asset will rise in future. The buyer of the call option would exercise the option when the actual price of underlying asset on the expiration date would be greater than the exercise price. The buyer of the call option is also known as a Long position in Call and the seller of the call option is known as a Short position in call.

Example 5: An investor purchased a call option at a strike price of ₹ 25 at a premium of ₹ 5. The current market price of the share is ₹ 23. Find out the profit/loss of the holder of the call option if the market price at the expiration date is ₹ 15, ₹ 25, ₹ 30, ₹ 35. Also show the payoff in a graph.

Solution: The profit/loss of the investor would be as follows:

Share Price on expiration date	₹ 15	₹ 25	₹ 30	₹ 35
Strike Price or Exercise Price	₹ 25	₹ 25	₹ 25	₹ 25
Decision to exercise Options	No	No	Yes	Yes
Buyer's Inflow	0	0	5	10
Premium Paid –	–5	–5	–5	–5
Net Payoff	–5	–5	0	+5

When the actual price of the share on expiration date is ₹ 15

Since the actual price is less than the strike price, the investor will not execute the option. There will be no inflow from the transaction but he has already paid ₹ 5 as *premium* to seller for holding the right to buy. His net loss will be ₹ 5.

When the actual price of the share is ₹ 25

Since the actual price of the share is equal to the strike price, the investor would be indifferent to exercise or leave the transaction. Whatever decision he may take, there will no inflow from the transaction. He will suffer loss of ₹ 5 as he has already paid ₹ 5 as *premium* for the right to buy the option.

When the actual price of the share is ₹ 30

Here, the actual price of the share is greater than the strike price; the investor would execute the option. There will be an inflow of ₹ 5 being the difference between the actual price and strike price. Since he has already paid ₹ 5 as *premium* to the seller, his net payoff would be 0 (zero)/Nil. He will have no profit/loss at this situation.

When the actual price of the share is ₹ 35

In this case, the actual price of the share is greater than the strike price, the investor would execute the transaction for gain of ₹ 10 (difference between the actual price and strike price). As ₹ 5 as *premium* has already been paid to the seller for holding the right to buy, his net payoff as gain would be ₹ 5 being the difference between the inflow and the *premium* already paid.

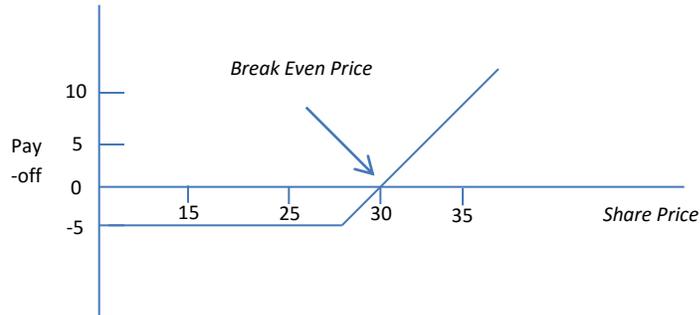


Figure 1: Net Pay-off to holder of the Call Option

It can also be concluded that the buyer maximum loss would be limited to ₹ 5 being the amount of premium already paid whereas his profits are unlimited.

Example 6: In continuation of the previous example, calculate the pay-offs of seller (writer) of the option.

Solution: The profit/loss of the seller (writer) of the call options are as follows:

Share Price on expiration date	₹ 15	₹ 25	₹ 30	₹ 35
Strike Price or Exercise Price	₹ 25	₹ 25	₹ 25	₹ 25
Options Exercise	No	No	Yes	Yes
Seller's Outflow	0	0	-5	-10
Premium Received	5	5	5	5
Net Payoff	5	5	0	-5

Let us examine the position of option seller:

When the actual price of the share on expiration date is ₹ 15

Since the actual price is less than the strike price, the investor will not execute the option and the writer of option would have gain of ₹ 5.

When the actual price of the share is ₹ 25

Since the actual price of the share is equal to the strike price, the investor would be indifferent to exercise or leave the transaction. Whatever decision he may take, there will no inflow from the transaction. The writer of option would have gain of ₹ 5 that he has already received as *premium*.

When the actual price of the share is ₹ 30

Here, the actual price of the share is greater than the strike price; the investor would execute the option. There will be an outflow of ₹ 5 being the difference between the actual price and strike price. Since he has already received ₹ 5 as *premium* from the buyer, his net payoff would be 0 (zero)/Nil. He will have no profit/loss at this situation.

When the actual price of the share is ₹ 35

In this case, the actual price of the share is greater than the strike price, the investor would execute the transaction for gain of ₹ 10 (difference between the actual price and strike price) and that will be the outflow of the seller of the option. As ₹ 5 as *premium* has already been received from the buyer for holding the right to buy, his net payoff as loss would be ₹ 5 being the difference between the inflow and the *premium* already received.

From the above, it can be concluded that the profit of the option writer (seller) is limited to the amount of premium whereas the loss is unlimited. It can be shown diagrammatically as follows:

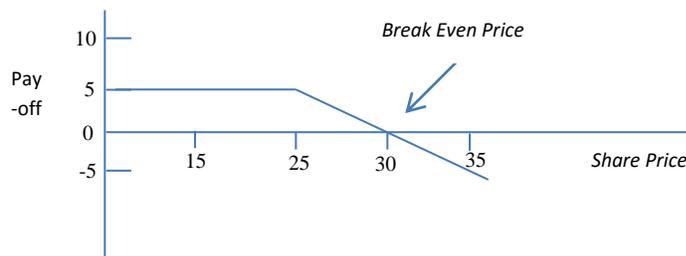


Figure 2: Net Pay-off to writer of the Call Option

- (ii) **Put Option:** It is a contract where the buyer of the option has the right to sell the underlying asset at the specified price or strike price. When the actual price is less than the strike price *minus* premium, the buyer of the put option will execute the contract and leave the option if actual price is greater than the strike price. Since the trading of option contracts is a zero-sum game, the profit of buyer of the option would be the loss of seller of the option contract.

Example 7: An investor purchased a put option at a strike price of ₹ 25 at a premium of ₹ 5. The current market price of the share is ₹ 23. Find out the profit/loss of the holder as well as seller of the put option if the market price at the expiration date is ₹ 15, ₹20 ₹ 25 and ₹ 30. Calculate the pay-offs of buyer (holder) of the put option.

Solution: The profit/loss of the holder of the put option is as follows:

Share Price on expiration date	₹ 15	₹ 20	₹ 25	₹ 30
Strike Price or Exercise Price	₹ 25	₹ 25	₹ 25	₹ 25
Decision to exercise Options	Yes	Yes	-	No
Buyer's Inflow	10	+5	0	0
Premium Paid	-5	-5	-5	-5
Net Payoff	5	0	-5	-5

Let us examine the position of the buyer of put option:

When the actual price of the share on expiration date is ₹ 15

In this case, the actual price is less than the exercise price; the buyer of the put option will execute the option. The seller has to accept the delivery of the shares at strike price ₹ 25. Since the actual market price on expiration date is ₹15, the buyer will gain ₹10 and his net pay-off will be ₹5 being the difference between the buyer's inflow *minus premium* paid to the seller.

When the actual price of the share on expiration date is ₹ 20

In this case, the actual price is less than the exercise price; the buyer of the put option will execute the option. The seller has to accept the delivery of the shares at strike price ₹ 25. Since the actual market price on expiration date is ₹20, the buyer will gain ₹5 and his net pay-off will be ₹0 being the difference between the buyer's gain *minus premium* paid to the seller. He will be at no profit/no loss position.

When the actual price of the share on expiration date is ₹ 25

In this case, the actual price is equal to the exercise price; the buyer of the put option will be indifferent whether to execute the transaction or not. The seller has to accept the delivery of the shares at strike price ₹ 25. Since the actual market price on expiration date is ₹25, the buyer will not get any gain and his net pay-off will be a loss of ₹5 being the amount paid as *premium* to the seller.

When the actual price of the share on expiration date is ₹ 30

In this case, the actual price is higher than the exercise price; the buyer of the put option will leave the option as he has an opportunity to sell the share at ₹30 instead of selling it to the writer at ₹25. Thus he will leave the transaction to lapse and will suffer loss of ₹5 being the amount paid as *premium* to the seller.

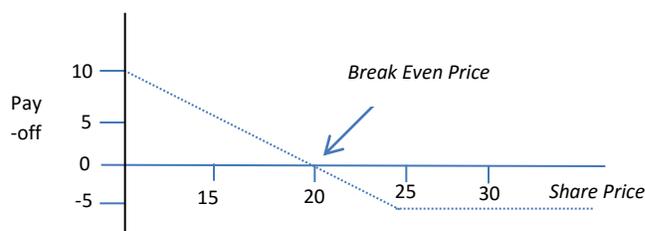


Figure 3: Net Pay-off to holder of the Put Option

Now, let us discuss the profit/loss of the seller (writer) of the put option:

Share Price on expiration date	₹ 15	₹ 20	₹ 25	₹ 30
Strike Price or Exercise Price	₹ 25	₹ 25	₹ 25	₹ 25
Buyer's Exercise Options	Yes	Yes	-	No
Seller's Outflow	-10	-5	0	0
Premium Received	5	5	5	5
Net Payoff	-5	0	5	5

When the actual price of the share on expiration date is ₹ 15

In this case, the actual price is less than the exercise price; the buyer of the put option will execute the option. The seller has to accept the delivery of the shares at strike price ₹ 25. Since the actual market price on expiration date is ₹15, the seller will have a loss of ₹10 and his net pay-off will be a loss of ₹5 being the difference between the seller's outflow and *premium* received.

When the actual price of the share on expiration date is ₹ 20

In this case, the actual price is less than the exercise price; the buyer of the put option will execute the option. The seller has to accept the delivery of the shares at strike price ₹ 25. Since the actual market price on expiration date is ₹20, the seller will have a loss of ₹5 and his net pay-off will be ₹0. He will be at no profit/no loss position.

When the actual price of the share on expiration date is ₹ 25

In this case, the actual price is equal to the exercise price; the buyer of the put option will be indifferent whether to execute the transaction or not. The seller has to accept the delivery of the shares at strike price ₹ 25. Since the actual market price on expiration date is ₹25, the seller's outflow will be nil and his net pay-off will be a gain of ₹5 being the amount received as *premium*.

When the actual price of the share on expiration date is ₹ 30

In this case, the actual price is higher than the exercise price; the buyer of the put option will leave the option as he has an opportunity to sell the share at ₹30 instead of selling it to the writer at ₹25. Thus he will leave the transaction to lapse and will suffer loss of ₹5 being the amount paid as *premium* to the seller. Hence seller will gain ₹5.

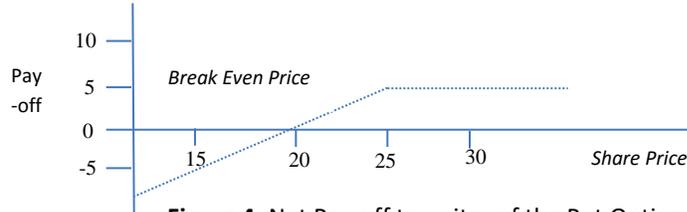


Figure 4: Net Pay-off to writer of the Put Option

Thus, from the above example, it can be observed that the gain of seller (writer) of the put option is limited to the amount of premium whereas his loss is depending on the market price of the share.

Example 8: Identify which of the following options will be exercised by the holder of the option specifying in the money, out of money and at the money position.

S.No.	Strike Price (₹)	Nature of Option	Market Price (₹)
1	150	Call	180
2	230	Put	250
3	185	Put	200
4	180	Call	190
5	202	Call	185
6	210	Put	240
7	215	Call	205

Solution:

Call option is exercised when Market Price at expiration date > Strike Price

Put Option is exercised when Market Price at expiration date < Strike Price

If the option holder gains by exercising the right, it is termed as ‘in the money’ and in case the option is not exercised, it is termed as ‘out of money’. At no profit or no loss situation i.e. at break-even level, it is termed as ‘at the money’.

S.No.	Market Price (₹)	Nature of Option	Strike Price (₹)	Decision	Moneyness
1	180	Call	150	Yes	In the money
2	250	Put	230	No	Out of money
3	200	Put	185	No	Out of money
4	190	Call	190	Indifferent	At the money
5	185	Call	202	No	Out of money
6	200	Put	210	Yes	In the money
7	205	Call	215	No	Out of money

- (iii) **Naked Option and Covered Option:** As observed in the above examples, the gain of the seller is limited only to the premium received whereas the risk of loss is unlimited subject to the prices of the security. If the seller owns the security at the time of entering into options contract, he will deliver the security to the buyer and feel protected from the risk of loss due to increase in the security prices. It is called as covered option. If he doesn't own the security, he is subject to high risk as he will have to purchase it from the market and then deliver it to the buyer in case option is exercised. It is called as naked option.

In India, the settlement of the prices takes place and no delivery of security takes place.

- (iv) **American Options and European Options:** If the options holder can exercise the right to buy or sell at the time of expiration only, it is called as a European style option. However, the right to buy or sell can be exercised at any time on or before the expiration date, it is termed as an American style option.
- (v) **Stock, Index, Interest rate and Currency options:** Options may be categorized on the basis of underlying asset. If the underlying asset is a stock or equity, it is termed as stock option. In India, Securities Exchange Board of India (SEBI) has allowed option contract on more than 100 stocks listed on NSE and BSE. Similarly, the underlying asset in terms of stock index such as NIFTY or SENSEX, it is called as Index Options. Here the options contracts are settled with the increase or decrease in value of Index. Besides, there may be interest rate options or currency options, the underlying security is a specific rate such as MIBOR etc. or the prices of foreign currency such US Dollar, Pound, Euro etc. The contracts are settled on the basis of prices of these underlying assets.

1.8 OTHER OPTION VALUATION MODELS

(a) Black and Scholes Model

(b) Binomial Model

(a) **Black and Scholes Model** developed by three economists- Fisher Black, Myron Scholes and Robert Merton for option pricing that was published in the Journal of Political Economy with title of article as “The pricing of options and corporate liabilities.” It provides a theoretical price estimate of European-style options. The motive behind the model is to eliminate risk by hedging the option by trading the underlying asset in a right way. The model assumes that there is atleast one risky security and one riskless security in the market. The price of the call option under this model depends upon five key determinants such as strike price, current market price, time to expiration, interest rate and volatility of the security price. The following are the assumptions of the model:

- The option is European style that can only be exercised at expiration.
- The stock doesn't pay any dividend.
- The presence of market efficiency (i.e. market movements can't be predicted).
- There is an absence of transaction cost or any fee.
- There is no arbitrage opportunity.
- The rate of return on riskless asset is constant.
- Log returns of stock prices are normally distributed.

The formula for calculating the fair value of option is as follows:

$$C = SN(d_1) - N(d_2) Ke^{-rt}$$

Where:

$$d_1 = \frac{\ln\left(\frac{S}{K}\right) + t\left(r + \frac{\sigma^2}{2}\right)}{\sigma\sqrt{t}}$$

$$d_2 = d_1 - \sigma\sqrt{t}$$

C = call premium

S= Current stock price

N= cumulative standard normal distribution

t = time until option exercise

r = risk free interest rate

e = exponential term

ln = natural log

K = option strike price

σ = standard deviation

One of the major limitations of the model is that it cannot be applied except European style option.

(b) **Binomial Model** considers the underlying security over the period of time and proposed by financial engineers John Carrington Cox, Stephen Ross and Mark Edward in 1979. The model divides the time to expiration into many possible time intervals by developing stock prices tree that depicts all the possible paths that stock prices could take over the period of time of the option. At every interval, it is assumed that the stock prices will increase or decrease by an amount using volatility and time to expiration¹. This generates a binomial distribution of underlying stock prices.

1.9 DIFFERENCE BETWEEN FUTURES AND OPTIONS

The following are the differences between futures and options contracts:

- (a) **Rights and obligations:** In case of futures contract, both the parties have equal rights and obligations to ask the other party to perform the contract. Whereas in options contract, the buyer or holder of the option contract has the right to exercise the contract and the seller is obliged to perform the option contract.
- (b) **Premium:** Under futures contract, no premium is paid whereas in options contract, the premium is paid by the buyer (holder) of the option contract to the seller (writer) of the options contract.
- (c) **Margin:** In case of futures contract, initial margin money is deposited by both the parties whereas in case of options contract, only the writer is required to deposit the margin with the exchange as he is at price risk, not the buyer.
- (d) **Profit or Loss:** Under futures contract, both the parties are exposed to unlimited chances of making profit or loss depending on the market price of the underlying security whereas, under options contract, the profit of the buyer is unlimited but loss is limited to the premium paid to seller and the loss of the seller is unlimited but the profit is limited to the premium received from the seller.
- (e) **Execution:** The futures contracts shall be executed and settled at the expiration date only whereas in case of option contracts, the execution depends upon the exercise of right of buyer that may or may not be exercised.

1.10 DERIVATIVE MARKET IN INDIA

The badla system or carry forward system used to prevail in securities market till 1993 but was banned after the Harshad Mehta Scam in Indian stock market. SEBI realised the misuse of badla system and decided to revive the system by adopting another system that could provide enough opportunities to investors to hedge risk and reducing the scope of speculations in stock market. Considering the trends in international markets, the SEBI came up with a decision to implement financial derivatives in Indian stock markets.

SEBI formulated a twenty-four members committee under the chairmanship of Dr. L.C. Gupta in 1997 to examine the feasibility of financial derivatives and to develop appropriate regulatory framework for derivatives trading in India. During 1998, the committee recommended the framework that was accepted by SEBI to implement financial derivatives in a phased manner. Consequently, the Securities Contract (Regulation) Act, 1956 was

amended to include derivatives within the ambit of ‘Securities’ under section 2(h) of Securities Contract (Regulation) Act. The committee recommended four types of derivative products to be introduced in a phased manner such as:

- i. Stock Futures,
- ii. Stock Options,
- iii. Index Futures and
- iv. Index Options.

In the year 2000, BSE and NSE introduced index futures on S&P BSE SENSEX and CNX NIFTY respectively followed by index option, stock options and stock futures in 2001. Since then India has been regarded as one of the most successful vibrant market for exchange-traded derivatives. Presently, in BSE, there are 174 stock F&O underlying assets, 6 indices such as S&P BSE SENSEX, S&P BSE BANKEX, S&P BSE OIL & GAS INDEX, S&P BSE TECK INDEX, S&P BSE 100, S&P BSE SENSEXN50 and 04 foreign indices viz. HAND SENG Index Futures, MICEX Index Futures, FTSE/JSE Top40 Futures, IBOVESPA Futures. More than 100 stock F&O are being traded in NSE. Recently, as per the notification on March 22, 2017, trading of 15 additional securities F&O contracts have been allowed w.e.f. March 31, 2017. The indices that are being traded in NSE are CNX NIFTY Index, CNX IT Index, BANK NIFTY Index, NIFTY Midcap50 Index, CNX Infrastructure Index, CNX PSE Index and global indices such as S&P 500, DJIA and FTSE100.

1.11 SUMMARY

- Derivative is a financial instrument that offers a return based on the performance of some underlying asset.
- The aim of entering into derivative transactions is to hedge the risk of price fluctuations over a certain period.
- Hedger is the trader who uses financial derivatives to have protection against price fluctuations.
- Speculators take extra leverage and make quick gains on the basis of their futures price movement analysis.
- Arbitrageurs are the player in the derivative markets who take advantage of price differential in two different markets.
- Futures Contracts are the standardized contracts where parties agree to buy or sell the asset (may be physical asset or financial asset) at specified price at specified future date.
- The valuation of future contract can be done on the following three different situations based upon payment or non-payment of income from an asset:

When the underlying asset provides no income: $F = S \times e^{rt}$

When the underlying asset provides known income: $F = (S-I) \times e^{rt}$

When the underlying asset provides known income yield: $F = S \times e^{(r-q)t}$

- Call option is a contract where the holder of the options contract has the ‘right to buy’ an underlying asset at a specified price on a specified future date.
- Call option is exercised when Market Price at expiration date > Strike Price

- Put Option is a contract where the buyer of the option has the right to sell the underlying asset at the specified price or strike price.
- Put Option is exercised when Market Price at expiration date < Strike Price
- If the options holder can exercise the right to buy or sell at the time of expiration only, it is called as a European style option.
- If the right to buy or sell can be exercised at any time on or before the expiration date, it is termed as an American style option.

1.12 SELF ASSESSMENT QUESTIONS

Exercise 1: True or False Statements

- Derivative instrument derive their value from the underlying asset.
- Underlying asset of a derivative must be a physical asset.
- Forward contracts are always standardized contracts.
- Futures contracts are guaranteed by the stock exchange.
- Buyer of a futures contract suffers a loss with the increase in price.
- Expiration date of derivative contract is determined by the parties concerned.
- Premium is paid to have a right on the option contract.
- If market price on expiration date is less than the strike price, the holder of call option will not exercise his option.
- If the market price on expiration date is greater than the strike price, there will be gain of premium to writer of the put option.
- Intrinsic value of option may be negative, zero or positive.
- Derivative contracts are settled through delivery of underlying assets.
- European style options can be exercised on or before the expiration date.

Answers: (i) T, (ii) F, (iii) F, (iv) T, (v) F, (vi) F, (vii) T, (viii) T, (ix) T, (x) F, (xi) F, (xii) F.

Exercise 2: Questions and Answers

- What are Financial Derivatives? Who are the participants of derivative markets?
- Differentiate between:
 - Options and Futures
 - Forwards and Futures
 - American and European Style Options
- How a call option different from a put option? What do you mean by exercising an option?
- “Options provide an opportunity of earning unlimited gains with limited risk to option buyer.” In the light of this statement, explain the nature of option contract. Also distinguish option from futures.
- The shares of XYZ Ltd. are available in the market at ₹ 1500 per share. The 3 months futures contract is available at ₹ 1700 per share. Should an investor should buy the futures contract given that the risk free rate of interest is 16% p.a.

- (vi) The value of 12-months NIFTY Futures Index is 7400 and continuously compounded at risk free rate of 12% per annum. The index is expected to declare dividend of ₹ 200 at the end of the year. Calculate the price of one futures contract if lot size is 50.
- (vii) The value of 4-months NIFTY Futures Index is 2600 and continuously compounded yield is 3% per annum and continuously compounded risk free rate of 9% per annum. Calculate the price of one futures contract if lot size is 100.
- (viii) A share of X Ltd. is currently traded in the market at ₹950. The company has no plan of declaring its dividend and the risk free rate of return is 6% p.a. compounded continuously. Find the 3month future price of the share.
- (ix) An investor purchased a NIFTY futures contracts for ₹ 25,00,000 in a lot size of 100 futures. NIFTY closes at 25500 on the date of settlement. Find out the profit or loss of an investor if he has paid a brokerage and commission of ₹1200.
- (x) Identify which of the following options will be exercised by the buyer of the option:

S.No.	Strike Price (₹)	Nature of Option	Market Price (₹)
1	240	Call	260
2	320	Put	300
3	275	Put	255
4	280	Call	280
5	292	Put	290
6	300	Call	320
7	255	Put	240

- (xi) Find out the net pay-off of the holder of call option, writer of call option, holder of put option, writer of put option if the exercise price for both the cases is ₹ 300 and the premium paid for call and put option are ₹ 8 and ₹ 7 respectively and the price of share on exercise day is
a. 280, b. 290, c. 300, d.310, e. 320
- (xii) An investor purchased 500 shares of Zero Ltd. @ ₹210 per share in cash market. To hedge the position, he sold 300 futures of Zero Ltd. @ ₹ 195 each. The share price and price of future fell down on next day by 5% and 30% respectively. He opted for counter transaction and closed his position. Calculate his net profit or loss from the transactions.

Answers: (v)1625.14, No (vi) ₹ 4,07,174.98 (vii) ₹ 2,65,253 (viii) ₹964.36 (ix) Loss ₹10,000 (x) 1-Yes, 2- Yes, 3- Yes, 4-Indifferent, 5-Yes, 6- Yes, 7-Yes (xi) Call option holder: -8, -8, -8, 2, 12; Call option Writer: 8,8,8, -2, -12; Holder of Put Option: 13, 3, -7, -7, -7; Writer of Put Option: -13, -3, 7,7,7. (xii) ₹ 12,300.

LESSON 1

INVESTOR PROTECTION

Ms. Anuradha Aggarwal

1. STRUCTURE

- 1.0 Objective
- 1.1 Introduction
- 1.2 Securities and Exchange Board of India (SEBI) and its role
- 1.3 Investor's protection
 - 1.3.1. Investor/Consumer Protection Fund (IPF/CPF)
- 1.4 Investor grievance and redressal system
- 1.5 Insider Trading
- 1.6 Investor's Awareness and activism
- 1.7 Summary
- 1.8 Self-Assessment Questions
- 1.9 Suggested Readings

1.0 OBJECTIVE

- 1. Learn about SEBI and regulations in helping the investors
- 2. Explain the need of investor protection and role of SEBI in this regard
- 3. Understand the investor grievances and how they are handled
- 4. How you can use the information and what is insider trading
- 5. Explain the important role of investor

1.1 INTRODUCTION

An investor is a person who invests some funds in the capital market. He parts from his funds to earn higher returns in future. But higher returns may not be fetched until he bears the risk that is inherent in the capital market. To understand the risk, he demands all the necessary information needed to assess the risk and associated benefit. The necessary information is provided by adequate disclosures as commanded by reforms in capital market since 1992. Such disclosures take care of investors' protection, investors' education, investors' grievance, unfair trade practices, even the insider trading.

1.2 SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI) AND ITS ROLE

The Securities and Exchange Board of India was enacted on April 12, 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992. The Preamble of the Securities and Exchange Board of India describes its basic function as:

"...to protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto".

SEBI regulates three important components of the market namely, the issuers of securities, the intermediaries and the investors. Its functions cover three aspects - legislative, judicial and executive. In its legislative capacity it drafts regulations. Its judicial capacity helps it in delivering the rulings and orders. The investigations and enforcement actions by SEBI are taken in its executive capacity. The detailed functions of SEBI are performed by its different departments. Some of them are discussed below:

- 1 **The Market Regulation Department:** regulates the stock market / stock exchange, its subsidiaries and market institutions such as Clearing and settlement organizations and Depositories.
- 2 **The Market Intermediaries Regulation and Supervision Department:** registers, supervises, monitors and inspects the market intermediaries who deal in equity, equity derivatives, currency derivatives, debt and debt related derivatives. If it finds any regulatory violation, this department takes action against the intermediary.
- 3 **The Commodity Derivatives Market Regulation Department:** supervises the operations of Commodity Derivative exchanges and its brokers.
- 4 **The Corporation Finance Department:** handles
 - a. Issuing and listing of securities in stock exchange (the initial and continued listing)
 - b. Issuing of corporate governance and accounting standards
 - c. Structuring of corporates after their takeovers, corporate buybacks etc.
 - d. Delisting of the securities from the stock exchanges
- 5 **The Investment Management department:** takes care of regulating mutual funds, venture capital funds, foreign venture capital investors, collective investment schemes like plantation schemes, Foreign Institutional Investors, Portfolio Managers and Custodians.
- 6 **The Investigations department:** conducts the investigation on potential illegal market activities and assists the enforcement department in enforcing SEBI action against violators.
- 7 **The Enforcement Department:** proceeds in regard to regulatory action and obtains redress for violations of securities laws and regulations against all market participants, issuers and individuals and other entities that breach securities laws and regulations.
- 8 **The Department of Legal Affairs:** provides legal counsel to the Board and to its other departments, and handles non-enforcement litigation.
- 9 **The Enquiries and Adjudication Department:** handles quasi-judicial matters and provide timely hearings and initiate adjudication brought by the other Departments against alleged violators.
- 10 **Office of Investor Assistance and Education:** This Office handles both the investor's and the corporate's complaints. The corporate complaints may relate to issues, transfer of shares, dividends, compliance with listing conditions, corporate governance issues, which are sent to concerned department. It follows up the complaints and responds back to the complaining party. It also educates the investors.
- 11 **General Services Department:** performs its internal functions like development of internal budget and accounting systems, maintenance of internal accounting records, internal control systems, and management of SEBI's investments and presentation of reports to SEBI board.

1.3 INVESTOR PROTECTION

An investor is exposed to certain risks because the utilizer of his money can commit mistakes while using the funds for productive purpose of the company. An investor thus needs protection against such mistakes either by the company or the intermediary or the broker. The term Investor Protection is a wider term that encompasses various measures designed to protect the investors from malpractices of companies, merchant bankers, depository participants and other intermediaries. The phrase of “caveat emptor”, applies here too, not just in the retail market. Investor need to beware while mobilising his savings for investment.

All the investors have three objectives. They are safety of invested money, liquidity from the invested money and the return on investment in selected securities with least risk. There are different kinds of investors, experienced, inexperienced and occasional investors. The experienced investors are learned investors who fully understand the type of risk involved in the selecting investment and hence they do not require any teaching. It is the last two categories of investors who require education on the opportunities and likely threats or dangers of investing. Here we also need to make a distinction between the commercial and non-commercial investors. As per SEBI’s letter, a person or a group of people say a brokerage firm who regularly trade shares to earn profits are taken in commercial sense and hence do not come under the scope of the Consumer Protection Act, 1986. That is, any dispute arising due to the mistake by the company or by the broker, (one engaged by an individual for regular buying and selling of shares) does not amount to victimisation of individual. In 2013, a client of India Infoline Ltd (now IIFL Holdings Ltd) moved to consumer court as a victim, but his complaint was turned down by the Thane District Consumer Disputes Redressal Forum because the investor was indulging in trading for commercial purposes and therefore not treated as consumer so his complaint was not maintainable under Consumer Protection Act, 1986.

1.3.1 INVESTOR PROTECTION FUND / CONSUMER PROTECTION FUND (IPF/ CPF)

The Government has established an Investor Education and Protection Fund (IEPF) under Sec. 205C of the Companies Act, 1956 under which unclaimed funds on account of dividends, matured deposits, matured debentures, share application money etc. are transferred through the IEPF to the Government by the company on completion of seven years. The Government is required to utilize this amount through an Investor Education and Protection Fund. For this purpose, the proceeds from the companies are credited to the Consolidated Fund of India through this fund. The Fund may then be entrusted with full-fledged responsibility to carry out activities for education of investors and protection of their rights. Bombay Stock Exchange was the first Exchange to set up the 'Stock Exchange Investors Protection Fund (IPF). This fund was set up on 10th July, 1986 and has been registered with the Charity Commissioner, Government of Maharashtra as a Charitable Fund. Likewise, other exchanges have set up the consumer Protection Fund.

In 2011, SEBI revised the guidelines of IPF. They are discussed below:

Structure of IPF:

Investor Protection Fund is made keeping in mind the interest of the clients of the trading members/brokers(either declared defaulters or expelled) of the Exchange.

Only genuine and bonafide claims made by any client are to be entertained. A claim is genuine when the client has not received the securities against which payment has been made or received payment against which securities have been sold to the trading member.

Corpus and Composition of the Fund is decided from: Contribution by every trading member of the Exchange being 1% of the listing fees collected by it in each financial year or interest earned on the security deposit, or the other sources, as decided by the exchange. This corpus is then insured to protect the trading member till the time of need.

Scrutiny: The trustees of the funds may scrutinize each of the claims (against the member or broker) filed within the stipulated period of one month. The trustees act after the claims have been screened together by an independent chartered accountant and officials of the exchange.

Eligible Claims and compensation

All the genuine and bonafide claims, for which an order or trade is recorded in the Exchange, may be eligible for consideration. The claims cannot be entertained unless they are supported with necessary proof of payment or delivery of securities to the trading member who have been declared defaulters.

The eligible claim is to the extent of the actual loss suffered by an investor. The actual loss would include any difference receivable by the claimant arising out of the transactions. However, the actual loss or the claim does not include claim for damages or interest or notional loss.

The amount of compensation that may be disbursed out of the corpus of Investors' Protection Fund or the Customer Protection Fund (CPF) that has been maintained by stock exchange. This is limited to the balance amount of the admitted claim of the client.

In case any claim is received after three years from the date of expiry of the specified period, it may be dealt with as a civil dispute.

1.4 INVESTOR GRIEVANCE AND REDRESSAL SYSTEM

To understand the meaning of investor grievance, let us break the word into two. Investor is a person who invests in securities. Grievance is suffering pain or distress, becoming the cause for complaint. Investor grievance begins after the investor invests in securities, he/she feels sorrow due to the conduct of either the broker or the intermediary or the company. The investor may become aggrieved when:

1. Shares are not allotted or refund order is not received within the stipulated 15 days after the close of public issue.
2. Dividend is not provided within 30 days after their announcement.
3. Certificate after the transfer or transmission of securities is not received.

4. Management of funds by the mutual fund manager is poor, inefficient, wrongly patterned or are untimely.
5. NAV of MF scheme is not published on daily basis.
6. Frequently the fund manager changes
7. Company dissolves
8. Facts are concealed and there is miss-statement in the advertisement
9. Unfair trade practices are followed by the broker or sub-broker
10. Occurrence of stock market scam
11. Lack of transparency and multiplicity of investor complaints
12. High volatility in the secondary market

And the like, the list is endless.

Redressal means equalising or rectifying the action. This system comes into being whenever the investor is distressed and the investor seeks remedy from the responsible party, i.e. the brokers/Depository Participants/listed company. If the response is not satisfactory, the investor is given the provision of moving against them via the higher powers. These authorities form a ladder in the redressal system as see in figure1.

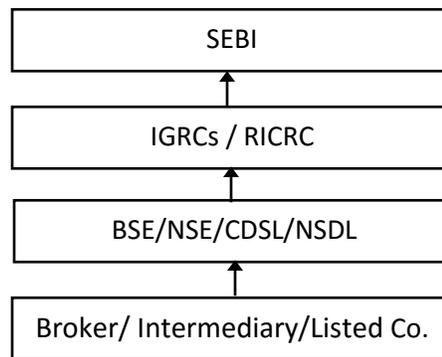


Figure 1: Ladder of Redressal System

In India, the aggrieved party can complain in the office of the BSE/NSE/CDSL/NSDL that is located at Chennai, Mumbai, Kolkata and New Delhi. In case the complainant is not satisfied, he can refer to Investor Grievance Redressal Committees (IGRCs), or Regional Investor Complaints Resolution Committees (RICRC) in the format provided by the BSE/NSE stock exchange. This forum, then acts as a mediator to resolve the disputes and differences between entities (broker/intermediary/listed company) and complainants (the investor). The two committees act as a nodal point to resolve the grievances. If the grievance is still not resolved, an investor can file arbitration under the Rules, Bye laws and Regulations of the respective Stock Exchange/Depository.

Both the government and the regulatory bodies are interested in protecting the interest of investors. In regard to this, different market participants are brought under the broad legal framework as discussed below:

1. The SEBI Act, 1992.
2. The Companies Act, 1956 (for setting the conduct for the corporates in respect to issue, allotment, transfer, disclosure in public issue)

3. The Securities Contracts (Regulation) Act, 1956 (for regulating the transactions in securities and controlling the stock exchanges)
4. Consumer protection Act 1986 (for protecting the rights of consumer or the investors)
5. The Depositories Act, 1996 (for maintaining and transferring the ownership of dematerialised shares).
6. The Prevention of Money Laundering Act, 2002.

SEBI has set up a separate department for redressal of investors. The Office of Investor Assistance and Education (OIAE) interact with the investors who are seeking assistance of SEBI. Investors can submit their grievances at the Head Office at Mumbai or at any of the Regional Offices at Delhi, Chennai, Kolkata and Ahmedabad. Investors also have the option to electronically file their grievances through the SEBI website (www.sebi.gov.in). All complaints received by SEBI are acknowledged with a unique number to facilitate tracking of the complaint. Dedicated telephone numbers provide assistance in filing grievances and in determining the appropriate authority for their first recourse.

Besides an “Investor Helpline” called SCORES has been set up by SEBI that is a free of charge. This is a web based centralized grievance redress system whose website address is <http://scores.gov.in>. SCORES enables investors to file their complaint and track the status of the redressal. The market intermediaries and listed companies receive the complaints online via this system. The guilty party redresses the complaint and report the redressal online. Further any complaint that is received by SEBI in written form is also uploaded in SCORES for processing.

Further, the Centralised Public Grievance Redress and Monitoring System, an online web-enabled system, has been developed by the National Informatics Centre (NIC) in association with the Department of Administrative Reforms and Public Grievances (DARPG) with an objective of speedy redress and effective monitoring of grievances by Ministries/Departments/Organisations of Government of India.

1.5 INSIDER TRADING

The general meaning of insider trading is trading by the inside person of the company. If we elaborate it, we get its actual meaning. Insider trading is trading of securities to take advantage of material information which is non-public. And only the one, who is either employed with the company or is having some relation with the company, will have the information (that is confidential) that he can use for his material gain.

For example: Mr. A, an executive of XYZ Co. came to know about the merger of the company with another small company. He quickly purchased the shares of the XYZ Co. assuming the share price to rise when the information on merger will be public. When Mr. A possessed the information, it was just the information of confidential nature, but when he used the information to buy the shares, the information became illegal and the process of using confidential information to buy shares came to be known as insider trading. For this attempt of Mr. A, he may be convicted by the law.

Now-a-days, some people have started using the term insider trading in legal sense. This may happen when, the information has been made public and the insider has no direct advantage over the other investors. To understand the legal and/or illegal insider information, the SEBI requires

all the insiders to report all their trading transactions. The insiders who are required to report can lie in any of the following categories:

- (i). The employee working with the bank or a financial institution.
- (ii). The member of board of directors of a company.
- (iii). The broker, portfolio manager, investment advisor, registrar who takes care of issue.
- (iv). The merchant banker, agent who takes care of share transfer.
- (v). The personnel working in stock exchange or clearing corporation
- (vi). The people working with companies under the same management.
- (vii). The employees of investment company, Asset Management Company and their intermediaries.
- (viii). The relative of any of the above personnel.

SEBI has in addition to defining the insiders, taken necessary steps to curb such practice by issuing SEBI (Prohibition of Insider Trading) Regulation, 1992 soon after it was incorporated.

1.6 INVESTOR'S AWARENESS AND ACTIVISM

The investor should be aware and educated before he thinks of investing in stock market. To help the investor take an informed decision, the Ministry of Corporate Affairs (MCA), the government and the SEBI act as a tripartite body to organise Investor Awareness Programmes (IAPs). The Investor Awareness Programme is conducted with the objectives of creating awareness amongst the investors about fraudulent schemes. The Ministry of Corporate Affairs organises the IAPs in association with the three Professional Institutes, namely, Institute of Chartered Accountants of India, Institute of Company Secretaries of India and Institute of Cost Accountants of India. Around 6400 IAPs have been organised by the three professional institutes, between the periods from 1st April, 2012 to 28th February, 2015. About 100 were conducted in rural region by Department of Electronics and Information Technology (DEIT) during 2012-13 and 2013-14.

The Government too want the small investors to participate in corporate sector. The rules under Companies Act, 2013 seek to promote good corporate governance and protection of interest of investors. The provisions like postal ballot and e-voting has strengthened the trust of small investors and they are now participating in the decision making on a comfortable scale. Further, the Government has been playing liberally on Foreign Direct Investment (FDI), including investments from Non-Resident Indians (NRIs). This body has also been reviewing the FDI policy to make it more investor friendly. The Government promotes investment through dissemination of information. For this it, coordinates with apex industry associations. The Government has set up 'Invest India'. It is a joint venture company meant to attract investment into the Micro, Small & Medium Enterprises (MSME) sector. The Federation of Indian Chambers of Commerce and Industry (FICCI) is a non-profit, single window facilitator of the joint venture company. The prospective investors in this company are those residing abroad and want to invest to develop the small companies in India. In 2007, the Government established the Overseas Indian Facilitation Centre (OIFC) in association with the Confederation of Indian Industry (CII) under the 'Invest India' initiative. Overseas Indian Facilitation Centre has been organising many Investment and Interactive Meets in different countries, one of which was called 'Pravasi Bharatiya Divas (PBD)' conducted in India. OIFC has further set up an electronic portal to resolve the queries of potential overseas investors.

Securities and Exchange Board of India (SEBI) was established with the prime mandate to protect the interest of investors in securities, development of and regulation of the securities market. The SEBI believes that an investor enjoys his investment, when (i) he knows how to invest; (ii) he has the complete knowledge of the market; (iii) the market is not indulging into fraudulent practices against the investor and is safe and there are no miscreants; and (iv) there are arrangements for redressal in case of grievances. Accordingly, SEBI's considers four elements. Firstly, SEBI believes in building the capacity of investors through education and awareness for which it uses information required for investing, evaluating various investment options to suit the investor's specific needs, determining the investors' rights and obligations in regard to a particular investment, dealing through registered intermediaries and taking necessary actions when the investor is seeking help in case of any grievance. SEBI has been responding to the queries of investors through telephone, e-mails, letters, and in person for those who visit SEBI office. Secondly, making available the details needed for investment in public domain. SEBI, as a regulatory body has asked for disclosure. Under this, issuers and intermediaries disclose all the relevant details about themselves, their products, the market where they operate and the regulations. All these disclosures are closely monitored by SEBI. Thirdly, SEBI has been ensuring that the market has a system and practice which make transactions safe. SEBI has taking measures such as screen based trading system, dematerialization of securities, T+2 rolling settlement. It has been ensuring that only the proper person is allowed to operate in the market, every participant is being asked to comply with the prescribed standards, and the miscreant are thus being awarded exemplary punishment. Fourthly, SEBI has been a comprehensive mechanism in facilitating redressal of investor grievances against intermediaries and listed companies. It has been following up with the companies and intermediaries who have not redressed investors' grievances. The SEBI has been sending reminders and conducting meetings with them on regular basis. (including launch of adjudication, prosecution proceedings, etc) where progress in redressal of investor grievances is not satisfactory. It has set up a comprehensive arbitration mechanism in stock exchanges and depositories for resolution disputes of the investors. In addition, the depository has been indemnifying investors for loss due to negligence of depository or depository participant.

In addition, the Securities and Exchange Board of India (SEBI) conducts investor assistance and education programmes through the resource persons, Investor Associations, stock exchanges, Depositories like NSDL or CSL and various similar trade bodies. SEBI also carries out campaigns that caution the investors against schemes offering unrealistic returns. SEBI also conducts investor education programmes through investor associations all over the country. SEBI has published the study material in English and vernacular languages. Under 'Visit SEBI' programme, school students have been encouraged to visit SEBI and understand its functioning. SEBI's Helpline is a toll free number which helps the investors across the country to access and seek information. SEBI has also launched an investor education campaign through media.

SEBI launched a comprehensive education campaign to educate investors about securities market called Securities Market Awareness Campaign (SMAC). The motto of the campaign was 'An Educated Investor is a Protected Investor.' The campaign was launched at the national level by the then Prime Minister, Shri Atal Bihari Vajpayee, on January 17, 2003. Likewise, Investor Awareness Programs are being conducted regularly by stock exchanges to educate the investors

and to create awareness among the Investors regarding the aspects such as the working of the capital market or the stock exchanges, Instruments of Investment like Derivatives, Futures and Options, their trading and settlement, Dematerialization of shares, Information on Debt Market, on Sensex, and other Indices, Portfolio approach, Fundamental Analysis, Technical Analysis, Mutual funds, Tax provisions etc. some of the main features covers the rights and the duties of the investors. They are discussed as under:

Rights of a shareholder

- 1) To receive the share certificates, on allotment or transfer as the case may be, in due time
- 2) To receive copies of the Annual Report containing the Balance Sheet, the Profit & Loss account and the Auditor's Report.
- 3) To participate and vote in general meetings either personally or through proxy.
- 4) To receive dividends in due time once approved in general meetings.
- 5) To receive corporate benefits like rights, bonus, etc. once approved.
- 6) To apply to Company Law Board (CLB) to call or direct the Annual General Meeting.
- 7) To inspect the minute books of the general meetings and to receive copies thereof.
- 8) To proceed against the company by way of civil or criminal proceedings.
- 9) To apply for the winding up of the company.
- 10) To receive the residual proceeds.
- 11) To receive offer to subscribe to rights shares in case of further issues of shares.
- 12) To receive offer under takeover or buyback offer under SEBI Regulations.

Duties of the investor: the following are the responsibilities that an investor has to discharge.

- 1) To participate in Annual General Meeting of various companies where they have the holding.
- 2) To gather information about the various aspects themselves
- 3) To be vigilant and keep the eyes and ears open when trading in securities market.

The investors are getting the information for informed decision. To further ease out the process, there are number of bodies that are helping in not just the investor education but in financial literacy as the investor may come from any background. Say, the Insurance Regulatory and Development Authority has been conducting Awareness programmes to convey the rights and duties of the policyholders (another type of investor), channels available for dispute redressal, etc. These messages are being disseminated through television, radio, print media in English, Hindi and 11 other Indian languages. IRDA has also conducted a PAN India survey on awareness levels about insurance which was carried through NCAER. IRDA has published 'Policyholder Handbooks' along with the comic book series on insurance. As part of its consumer education initiative, IRDA has launched an exclusive website (www.policyholder.gov.in) for education of policyholders. The website displays information on buying insurance, standard claim procedures, do's and don'ts for a policyholder, general alerts, dealings with intermediaries and FAQs. IRDA's Integrated Grievance Management System (IGMS) is aimed at creating a central repository of grievances from across the country to which it keeps responding on regular basis.

Likewise, the Pension Fund Regulatory and Development Authority (PFRDA) have been engaged in spreading social security messages to the public, who invest their hard earned money

as a contribution to pension fund. PFRDA has developed FAQs on pension related topics, available on its official website. The Pension Fund Regulatory and Development Authority provide information relating to NPS (national pension scheme). An individual can open an NPS account with authorised branches of the service providers. These branches are called Points of Presence (POPs). This facility provides the option to the investor to shift from one branch to another branch of a POP to another according to his/her convenience.

Forward Markets Commission (FMC) is another such body engaged in financial literacy. FMC is a regulator of the commodity futures market in India. Futures markets enable farmers, producers, cooperative societies, corporate bodies, exporters, traders and members of Commodity Exchanges, bankers, teachers, researchers, students of Universities, Government functionaries, warehouse professionals, Micro Medium & Small Enterprises etc. to hedge against price volatility. During the 11th Five Year Plan, the Commission initiated various market development programmes to emphasize the utility of the markets, to make aware / educate the participants about how to participate in the futures market and the precautions to be taken therein. Apart from these, sensitization programmes are organized by the Commission for both the State Government and Central Government officers. Besides, the Commission every year organizes a number of stakeholders' meetings at different parts of the country to discuss the various aspects of the commodity futures trading including the difficulties faced.

Finally, when a financial sector consumer buys a product or is being convinced to buy a product, it is necessary that he/she may first be educated about the particular product that is being sold. The agency for educating about a product can be any of the following agencies namely, The Indian Bank's Association (IBA), Association of Mutual Funds in India (AMFI), Association of National Exchanges Members of India (ANMI), Stock Exchanges, Depositories, Fixed Income Money Market and Derivatives Association (FIMMDA), Foreign Exchange Dealers Association of India (FEDAI), Life Insurance Council and General Insurance Council. Self-Regulatory Organisations (SROs) in association with the regulators, regulated intermediaries like banks, depository participants, brokers, pension fund managers, annuity service providers, etc. play an important part in making a prospective investor, financially educated.

1.7 SUMMARY

- 1) The reforms in capital market since 1992 and the subsequent disclosures has taken care of investors' protection, investors' education, investors' grievance, unfair trade practices, even the insider trading.
- 2) The experienced investors are learned investors who fully understand the type of risk involved in the selecting investment and hence they do not require any teaching.
- 3) The Government has established an Investor Education and Protection Fund (IEPF) under Sec. 205C of the Companies Act, 1956 under which unclaimed funds on account of dividends, matured deposits, matured debentures, share application money etc. are transferred through the IEPF to the Government by the company on completion of seven years.

- 4) In 2011, SEBI revised the guidelines of IPF defining the genuine claim, the contribution by the trading member being limited to 1% of the listing fees, the trustees of the funds scrutinised within the stipulated time of one month and eligible claims to be supported by necessary proof of payment or delivery of securities to the trading members
- 5) The investor can complaint when shares are not allotted or refund order is not received within the stipulated 15 days after the close of public issue, Dividend is not provided within 30 days after their announcement, Certificate after the transfer or transmission of securities is not received, Management of funds by the mutual fund manager is poor, inefficient, wrongly patterned or are untimely, NAV of MF scheme is not published on daily basis, Frequently the fund manager changes, Company dissolves, Facts are concealed and there is miss-statement in the advertisement, Unfair trade practices are followed by the broker or sub-broker, Occurrence of stock market scam, Lack of transparency and multiplicity of investor complaints and high volatility is witnessed in the secondary market.
- 6) If the response is not satisfactory, the investor is given the provision of moving against them via the higher powers. These authorities form a ladder in the redressal system beginning from broker or the intermediaries, followed by depository participant or stock exchanges, followed by Investor Grievance Redressal Committees and finally SEBI.
- 7) Besides an “Investor Helpline” called SCORES has been set up by SEBI that is a free of charge. This is a web based centralized grievance redress system whose website address is <http://scores.gov.in>.
- 8) Insider trading is trading of securities to take advantage of material information which is non-public.
- 9) The insiders who are required to report may be an employee working with the bank or a financial institution or stock exchange, or company under the same management, may be member of board of directors of a company, may be a broker, portfolio manager, investment advisor, registrar who takes care of issue, may be a merchant banker, agent who takes care of share transfer, may be a relative of any of the above personnel.
- 10) To help the investor take an informed decision, the Ministry of Corporate Affairs (MCA), the government and the SEBI act as a tripartite body to organise Investor Awareness Programmes (IAPs).
- 11) SEBI launched a comprehensive education campaign to educate investors about securities market called Securities Market Awareness Campaign (SMAC). The motto of the campaign was ‘An Educated Investor is a Protected Investor.’
- 12) The investor can enjoy the rights while investing in the capital market. An investor is also required to fulfil some duties or responsibilities.

1.8 SELF ASSESSMENT QUESTIONS

Q1) Fill in the blanks

- (i) An _____ is a person who invests some funds in the capital market. He parts from his funds to earn higher returns in future.
- (ii) The Securities and Exchange Board of India was enacted on April 12,.....
- (iii) TheManagement department takes care of regulating mutual funds, venture capital funds, foreign venture capital investors.

- (iv)Stock Exchange was the first Exchange to set up the 'Stock Exchange Investors Protection Fund (IPF).
- (v) An investor is exposed to certain risks because the utilizer of his money can commitwhile using the funds for productive purpose of the company.
- (vi)is suffering pain or distress, becoming the cause for complaint.
- (vii) means equalising or rectifying the action.
- (viii) Insider trading is trading of securities to take advantage of material information which is.....
- (ix) The Ministry of Corporate Affairs (MCA), the government and the SEBI act as abody to organise Investor Awareness Programmes (IAPs).
- (x) To inspect the minute books of the general meetings and to receive copies thereof, is one of theof the investor.

Answers: (i) investor (ii) 1992 (iii) Investment (iv) Bombay (v) mistakes (vi) Grievance (vii) redressal (viii) non-public (ix) tripartite (x) right

Q2) Indicate the following as true or false. If false, give reasons.

- (i) SEBI regulates three important components of the market namely, the issuers of securities, the intermediaries and the investors.
- (ii) Market Intermediaries Regulation and Supervision Department takes action against any intermediary in case of regulatory violation.
- (iii) The in experienced investors are learned investors who fully understand the type of risk involved in the selecting investment and hence they do not require any teaching.
- (iv) Enquiries and Adjudication department takes care of both the investor's and the corporate's complaints.
- (v) The first authority that the aggrieved investor approach to file his complaint against a broker is SEBI.
- (vi) The brother of the CEO of the company is not regarded as insider for the purpose of insider trading.
- (vii) SEBI has been playing liberally on Foreign Direct Investment (FDI), including investments from Non-Resident Indians (NRIs).
- (viii) The investor has no right to ask for the copy of financial statements of the company.
- (ix) Under 'Visit SEBI' programme, corporates who raise capital through SEBI have been encouraged to visit SEBI and understand its functioning.
- (x) The Government established the Overseas investment Facilitation Centre (OIFC) in association with the Confederation of Indian Industry (CII) under the 'Invest India' initiative.

Q3) Answer the following:

- (i) When did SEBI come into force? What is the role of SEBI?

- (ii) What is the meaning of investor protection? How can a stock exchange help in protecting the investor?

- (iii) What is insider trading? What is government doing to curb the insider trading?

- (iv) List out the reasons for a investor to become aggrieved.

- (v) Discuss the redressal system.

- (vi) Briefly discuss the role of ministry of corporate affairs in investor's education.

- (vii) Discuss the role of various regulatory bodies other than SEBI that help in investors' awareness.

- (viii) Discuss the role of SEBI in investors' awareness programme.

- (ix) Discuss briefly the rights and duties of an investor.

1.9 SUGGESTED READINGS

- 1) Prasanna Chandra, *Investment Analysis and Portfolio Management*, second edition, Tata McGraw-Hill Publishing Company Limited.
- 2) R.P. Rustagi, *Investment Management Theory and Practice*, Sultan Chand and Sons.
- 3) N. J. Yaraswy, *intelligent Stock Market Investing*, Orient Publisher.