Introduction to FINANCIAL MARKET

(PART - 1)

CENTRAL BOARD OF SECONDARY EDUCATION
2, Community Centre, Preet Vihar, Delhi-110092

Introduction to FINANCIAL MARKET

PART 1

CLASS XI

CENTRAL BOARD OF SECONDARY EDUCATION
PREET VIHAR, DELHI-110092

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Preface

There is an urgent need to give greater thrust and a new direction to Vocational Education and Training in the country. Emergence of new fields of employment has opened up numerous opportunities for the youth today. The growing demand of the employment market skilled and trained manpower cannot be adequately met exclusively through university education. A new generation of vocational courses to be offered at the senior school stage would go a long way in meeting this demand because, besides producing employable and competent human resource in a relatively short period, such courses would also make vocational education attractive as well as viable option for the youth of the country. Keeping this in view CBSE is introducing new vocational courses that will represent a paradigm shift in school education from pure academics to orientation towards skill development and employability. Further these courses will have the scope for vertical mobility for higher education also.

India is one of the largest emerging markets in the world with enormous potential for growth in the coming years. The financial market is also expanding, attracting ever-increasing number of domestic and foreign investors. The phenomenon is creating a great demand for a large number by trained professional to manage and advise investors. They, in turn would need the support of back shop professionals. This course will facilitate the creation of such manpower.

The first of the new generation vocational courses that will be implemented from the academic year beginning from 1st April, 2007 is 'Financial Market Management' (FMM) Senior Secondary level. As one of the compulsory subjects in the vocational package is Computer Applications in Financial Market for class XI. The paper on Computer Applications provides some basic knowledge about the Computer Application in stock markets as an initial step towards becoming more informed investor. The study of this curriculum will also help CBSE students to pass NSE's Certification in Financial Markets (NCFM). The Board thankfully acknowledges recommendable work of the textbook committee of authors. The members of the Committee were: -

1. Sh. Mukesh Mukar, Head, Deptt. Of Computer Science, Delhi Public School, R.K. Puram, New Delhi.
2. Ms. Nancy Sehgal, Head, Deptt. Of Computer Science, Mata Jai Kaur Public School, Ashok Vihar, Delhi.
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4. Ms. Neera Gupta, Sardar patel Vidyalaya, Lodhi Estate, New Delhi.
5. Ms. Gurpreet Kaur, Head, Deptt. G.D. Goenka Public School, Vasant Kunj, New Delhi.

All of them deserve appreciation and gratitude from the Board. I also record my sincere appreciation and thanks to Sh. Shashi Bhushan, HOD (Edusat) alongwith Sh. C. Dharuman, Education Officer (Voc. & Edusat) who have been instrumental in bringing out this textbook. Any suggestion and feedback for further improvement of the textbook are always welcome.

(ASHOK GANGULY)
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ACKNOWLEDGEMENTS

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भारत का संविधान

उद्देशिका

हम, भारत के लोग, भारत को एक [1][सम्पूर्ण प्रभुत्व-संपन्न समाजवादी पंथनिरपेक्ष लोकतंत्रात्मक गणराज्य] बनाने के लिए, तथा उसके समस्त नागरिकों को:

सामाजिक, आर्थिक और राजनैतिक न्याय,
विचार, अभिव्यक्ति, विश्वास, धर्म
और उपासना की स्वतंत्रता,
प्रतिष्ठा और अवसर की समता

प्राप्त कराने के लिए,
तथा उन सब में,

व्यक्ति की गरिमा और [2][राष्ट्र की एकता
और अखण्डता] सुनिश्चित करने वाली बंधुता

बढ़ाने के लिए

दृढ़संकल्प होकर अपनी इस संविधान सभा में आज तारीख 26 नवम्बर, 1949 ई० को एतद्द्वारा इस संविधान को अंगीकृत, अधिनियमित और आत्मार्पित करते हैं।

1. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977) से "प्रभुत्व-संपन्न लोकतंत्रात्मक गणराज्य" के स्थान पर प्रतिस्थापित।
2. संविधान (बयालीसवां संशोधन) अधिनियम, 1976 की धारा 2 द्वारा (3.1.1977 से), "राष्ट्र की एकता" के स्थान पर प्रतिस्थापित।

भाग 4 क

मूल कर्त्तव्य

51 क. मूल कर्त्तव्य – भारत के प्रत्येक नागरिक का यह कर्त्तव्य होगा कि वह –

(क) संविधान का पालन करे और उसके आदर्शों, संस्थाओं, राष्ट्रध्वज और राष्ट्रगान का आदर करे;

(ख) स्वतंत्रता के लिए हमारे राष्ट्रीय आंदोलन को प्रेरित करने वाले उच्च आदर्शों को हृदय में संजोए रखे और उनका पालन करे;

(ग) भारत की प्रभुता, एकता और अखंडता की रक्षा करे और उसे अक्षुण्ण रखे;

(घ) देश की रक्षा करे और आह्वान किए जाने पर राष्ट्र की सेवा करे;

(ङ) भारत के सभी लोगों में समरसता और समान भ्रातृत्व की भावना का निर्माण करे जो धर्म, भाषा और प्रदेश या वर्ग पर आधारित सभी भेदभाव से परे हों, ऐसी प्रथाओं का त्याग करे जो स्त्रियों के सम्मान के विरुद्ध हैं;

(च) हमारी सामासिक संस्कृति की गौरवशाली परंपरा का महत्त्व समझे और उसका परीक्षण करे;

(छ) प्राकृतिक पर्यावरण की जिसके अंतर्गत वन, झील, नदी, और वन्य जीव हैं, रक्षा करे और उसका संवर्धन करे तथा प्राणिमात्र के प्रति दयाभाव रखे;

(ज) वैज्ञानिक दृष्टिकोण, मानववाद और ज्ञानार्जन तथा सुधार की भावना का विकास करे;

(झ) सार्वजनिक संपत्ति को सुरक्षित रखे और हिंसा से दूर रहे;

(ञ) व्यक्तिगत और सामूहिक गतिविधियों के सभी क्षेत्रों में उत्कर्ष की ओर बढ़ने का सतत प्रयास करे जिससे राष्ट्र निरंतर बढ़ते हुए प्रयत्न और उपलब्धि की नई उंचाइयों को छू ले।

THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a [1] **SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the [2] [unity and integrity of the Nation];

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

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1. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "Sovereign Democratic Republic (w.e.f. 3.1.1977)
2. Subs, by the Constitution (Forty-Second Amendment) Act. 1976, sec. 2, for "unity of the Nation (w.e.f. 3.1.1977)

THE CONSTITUTION OF INDIA

Chapter IV A

Fundamental Duties

ARTICLES 51A

Fundamental Duties - It shall be the duty of every citizen of India-

(a) to abide the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;

(b) to cherish and follow the noble ideals which inspired our national struggle for freedom;

(c) to uphold and protect the sovereignty, unity and integrity of India;

(d) to defend the country and render national service when called upon to do so;

(e) To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;

(f) to value and preserve the rich heritage of our composite culture;

(g) to protect and improve the natural environment including forests, lakes, rivers, wild life and to have compassion for living creatures;

(h) to develop the scientific temper, humanism and the spirit of inquiry and reform;

(i) to safeguard public property and to abjure violence;

(j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.

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Financial Markets and Instruments

LEARNING OBJECTIVES

After studying this chapter, you will be able:

- To understand the financial markets.
- To understand various alternative financial instruments.
- To compare alternative financial instruments on key parameters.
- To know various investment objectives and constraints of the financial instruments.
- To understand the difference between real investments and financial investments.

We had the opportunity to watch the action from the ring side seat – and the things we saw, heard and experienced stirred some deeper thoughts in our mind about our wisdom or lack of it, in matters related to financial markets and money.

Many investors in spite of distressing evidence all around still get carried away by hype. Financial business is all about informed decisions. We realize that discerning data if not readily available in one place can make it difficult for anyone to choose intelligently. In an effort to capture the diverse issues of financial markets in a single summary, we share our experiences; views and insights in this chapter.

You have heard about the heart rendering stories of how people were driven to destitution when they lost all their money in reckless investments. You may have also been captivated by tales of how some others vaulted to indecent riches through the same process. This chapter tries to discourage you from adopting a similar approach to investments. Instead, it suggests that an early and habitual flow of savings if invested prudently can make millionaires out of common men. A disciplined and cautious approach to wealth management rewards you in more ways than one.

Financial markets are full of imperfections, which make results inconsistent with the expectations. Genuine conditions apart, in the present world of finance, human greed, system failures or national afflictions can make things very unpredictable. This is where risk comes into play. This chapter deals in sufficient details, the different manifestations of risk in each asset class and tries to suggest you the ways to minimize it.

Many of us have one simple approach to dealing with risk. That is to avoid it by all means. In financial investment matters, this may not be a good strategy. As risk and return are correlated, every risk you are avoiding possibly deprives you of a handsome opportunity to build your wealth. Balancing risk with return in line with your individual circumstances is what financial market management is all about? This chapter throws some light on these simple but mostly neglected aspects of managing one's own finance.

1.1 Types of Markets

Efficient transfer of resources from those having idle resources to others who have a pressing need for them is achieved through financial markets. Stated formally, financial markets provide channels for allocation of savings to investment. These provide a variety of assets to savers as well as various forms in which the investors can raise funds and thereby decouple the acts of saving and investment. The savers and investors are constrained not by their individual abilities, but by the economy's ability, to invest and save respectively. The financial markets, thus, contribute to economic development to the extent that the latter depends on the rates of savings and investment.

The financial markets have two major components:

- Money market
- Capital market.

The **Money market** refers to the market where borrowers and lenders exchange short-term funds to solve their liquidity needs. Money market instruments are generally financial claims that have low default risk, maturities under one year and high marketability.

The **Capital market** is a market for financial investments that are direct or indirect claims to capital. It is wider than the Securities Market and embraces all forms of lending and borrowing, whether or not evidenced by the creation of a negotiable financial instrument. The Capital Market comprises the complex of institutions and mechanisms through which intermediate term funds and long-term funds are pooled and made available to business, government and individuals. The Capital Market also encompasses the process by which securities already outstanding are transferred.

The **Securities Market**, however, refers to the markets for those financial instruments/ claims/obligations that are commonly and readily transferable by sale.

The Securities Market has two interdependent and inseparable segments, the new issues (primary) market and the stock (secondary) market.

The Primary market provides the channel for sale of new securities. The issuer of securities sells the securities in the primary market to raise funds for investment and/or to discharge some obligation.

The Secondary market deals in securities previously issued. The secondary market enables those who hold securities to adjust their holdings in response to charges in their assessment of risk and return. They also sell securities for cash to meet their liquidity needs.

The price signals, which subsume all information about the issuer and his business including associated risk, generated in the secondary market, help the primary market in allocation of funds.

This secondary market has further two components.

First, the **spot market** where securities are traded for immediate delivery and payment. The other is **forward market** where the securities are traded for future delivery and payment. This forward market is further divided into Futures and Options Market (Derivatives Markets).

In futures Market the securities are traded for conditional future delivery whereas in option market, two types of options are traded. A **put option** gives right but not an obligation to the owner to sell a security to the writer of the option at a predetermined price before a certain date, while a **call option** gives right but not an obligation to the buyer to purchase a security from the writer of the option at a particular price before a certain date.

<table>
<tr><th colspan="12">Indian Financial System</th></tr>
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</table>

Lets now understand these markets in broader sense.

1.2 Equity Market

Before discussing the equities market, we should first understand the basic meaning of markets, their functions and classification.

1.2.1 What is a Market?

A market is a location where buyers and sellers come into contact to exchange goods or services. Markets can exist in various forms depending on various factors.

1.2.2 Can Markets Exist in Different Forms?

Yes, the markets do exist in different forms depending on the nature of location and mode of contact. It can have a physical location where buyers and sellers come in direct contact with each other or a virtual location where the buyers and sellers contact

each other employing advance means of communication. There is another form of market where actual buyers and sellers achieve their objectives through intermediaries.

1.2.3 Securities Markets in India: An Overview

The process of economic reforms and liberalization was set in motion in the mid-eighties and its pace was accelerated in 1991 when the economy suffered severely from a precariously low foreign exchange reserve, burgeoning imbalance on the external account, declining industrial production, galloping inflation and a rising fiscal deficit. The economic reforms, being an integrated process, included deregulation of industry, liberalization in foreign investment, regime, restructuring and liberalization of trade, exchange rate, and tax policies, partial disinvestments of government holding in public sector companies and financial sector reforms. The reforms in the real sectors such as trade, industry and fiscal policy were initiated first in order to create the necessary macroeconomic stability for launching financial sector reforms, which sought to improve the functioning of banking and financial institutions (FIs) and strengthen money and capital markets including securities market. The securities market reforms specifically included:

- Repeal of the Capital Issues (Control) Act, 1947 through which Government used to expropriate and allocate resources from capital market for favored uses;
- Enactment of the Securities and Exchange Board of India Act, 1992 to provide for the establishment of the Securities and Exchange Board of India (SEBI) to regulate and promote development of securities market;
- Setting up of NSE in 1993, passing of the Depositories Act, 1996 to provide for the maintenance and transfer of ownership of securities in book entry form;
- Amendments to the Securities Contracts (Regulation) Act, 1956 (SCRA) in 1999 to provide for the introduction of futures and option.
- Other measures included free pricing of securities, investor protection measures, use of information technology, dematerialization of securities, improvement in trading practices, evolution of an efficient and transparent regulatory framework, emergence of several innovative financial products and services and specialized FIs etc.

These reforms are aimed at creating efficient and competitive securities market subject to effective regulation by SEBI, which would ensure investor protection.

1.2.4 A Profile

The corporate securities market in India dates back to the 18th century when the securities of the East India Company were traded in Mumbai and Kolkotta. The brokers used to gather under a Banyan tree in Mumbai and under a Neem tree in Kolkata for the purpose of trading those securities. However the real beginning came in the 1850's with the introduction of joint stock companies with limited liability. The 1860's witnessed feverish dealings in securities and reckless speculation. This brought brokers in Mumbai together

in July 1875 to form the first formally organized stock exchange in the country viz. The Stock Exchange, Mumbai. Ahmedabad stock exchange in 1894 and 22 others followed this in the 20th century. The process of reforms has led to a pace of growth almost unparalleled in the history of any country. Securities market in India has grown exponentially as measured in terms of amount raised from the market, number of stock exchanges and other intermediaries, the number of listed stocks, market capitalization, trading volumes and turnover on stock exchanges, investor population and price indices. Along with this, the profiles of the investors, issuers and intermediaries have changed significantly. The market has witnessed fundamental institutional changes resulting in drastic reduction in transaction costs and significant improvements in efficiency, transparency and safety, thanks to the National Stock Exchange. Indian market is now comparable to many developed markets in terms of a number of parameters.

1.2.5 Structure and Size of the Markets

Today India has two national exchanges, the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). Each has fully electronic trading platforms with around 9400 participating broking outfits. Foreign brokers account for 29 of these. There are some 9600 companies listed on the respective exchanges with a combined market capitalization near Rs.24.7 lakh crore. Any market that has experienced this sort of growth has an equally substantial demand for highly efficient settlement procedures. In India 99.9% of the trades, according to the National Securities Depository, are settled in dematerialized form in a T+2 rolling settlement The capital market is one environment. In addition, the National Securities Clearing Corporation of India Ltd (NSCCL) and Bank of India Shareholding Ltd (BOISL), Clearing Corporation houses of NSE and BSE, guarantee trades respectively. The main functions of the Clearing Corporation are to work out (a) what counter parties owe and (b) what counter parties are due to receive on the settlement date.

Furthermore, each exchange has a Settlement Guarantee Fund to meet with any unpredictable situation and a negligible trade failure of 0.003%. The Clearing Corporation of the exchanges assumes the counter-party risk of each member and guarantees settlement through a fine-tuned risk management system and an innovative method of online position monitoring. It also ensures the financial settlement of trades on the appointed day and time irrespective of default by members to deliver the required funds and/or securities with the help of a settlement guarantee fund.

1.2.6 Style of Operating

Indian stock markets operated in the age-old conventional style of fact-to-face trading with bids and offers being made by open outcry. At the Bombay Stock Exchange, about 3,000 persons would mill around in the trading ring during the trading period of two hours from 12.00 noon to 2.00 p.m. Indian stock markets basically quote-driven markets with the jobbers standing at specific locations in the trading ring called trading posts and announcing continuously the two-way quotes for the scrips traded at the post. As there is no prohibition on a jobber acting as a broker and vice versa, any member

is free to do jobbing on any day. In actual practice, however, a class of jobbers has emerged who generally confine their activities to jobbing only. As there are no serious regulations governing the activities of jobbers, the jobbing system is beset with a number of problems like wide spreads between bid and offer; particularly in thinly traded securities, lack of depth, total absence of jobbers in a large number of securities, etc. In highly volatile scrips, however, the spread is by far the narrowest in the world being just about 0.1 to 0.25 percent as compared to about 1.25 per cent in respect of alpha stocks, i.e. the most highly liquid stocks, at the International Stock Exchange of London. The spreads widen as liquidity decreases, being as much as 25 to 30 per cent or even more while the average touch of gamma stocks, i.e. the least liquid stocks at the International Stock Exchange, London, is just about 6 to 7 per cent. This is basically because of the high velocity of transactions in the active scrips. In fact, shares in the specified group account for over 75 percent of trading in the Indian stock markets while over 25 percent of the securities do not get traded at all in any year. Yet, it is significant to note that out of about 6,000 securities listed on the Bombay Stock Exchange, about 1,200 securities get traded on any given trading day.

The question of automating trading has always been under the active consideration of the Bombay Stock Exchange for quite sometime. It has decided to have trading in all the non-specified stocks numbering about 4,100 totally on the computer on a quote-driven basis with the jobbers, both registered and roving, continuously keying in their bids and offers into the computer with the market orders getting automatically executed at the touch and the limit orders getting executed at exactly the rate specified.

In March 1995, the BSE started the computerized trading system, called BOLT - BSE on-line trading system. Initially only 818 scripts were covered under BOLT. In July 1995, all scripts (more than 5,000) were brought under the computerized trading system. The advantages realized are: (a) improved trading volume; (b) reduced spread between the buy-sell orders; c) better trading in odd lot shares, rights issues etc.

1.2.7 Highlights of the Highly Attractive Indian Equity Market

Two major reasons why Indian securities are now increasingly regarded as attractive to international investors are the relatively high returns compared with more developed global markets as well as the low correlation with world markets.

1.3 Debt Market

The National Stock Exchange started its trading operations in June 1994 by enabling the Wholesale Debt Market (WDM) segment of the Exchange. This segment provides a trading platform for a wide range of fixed income securities that includes central government securities, treasury bills (T-bills), state development loans (SDLs), bonds issued by public sector undertakings (PSUs), floating rate bonds (FRBs), zero coupon bonds (ZCBs), index bonds, commercial papers (CPs), certificates of deposit (CDs), corporate debentures, SLR and non-SLR bonds issued by financial institutions (FIs), bonds issued by foreign institutions and units of mutual funds (MFs).

To further encourage wider participation of all classes of investors, including the retail investors, the Retail Debt Market segment (RDM) was launched on January 16, 2003. This segment provides for a nation wide, anonymous, order driven, screen based trading system in government securities. In the first phase, all outstanding and newly issued central government securities were traded in the retail debt market segment. Other securities like state government securities, T-bills etc. will be added in subsequent phases. The settlement cycle is same as in the case of equity market i.e., T+2 rolling settlement cycle.

1.4 Derivatives Market

The emergence of the market for derivative products, most notably forwards, futures and options, can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. By their very nature, the financial markets are marked by a very high degree of volatility. Through the use of derivative products, it is possible to partially or fully transfer price risks by locking–in asset prices. As instruments of risk management, these generally do not influence the fluctuations in the underlying asset prices.

However, by locking-in asset prices, derivative products minimize the impact of fluctuations in asset prices on the profitability and cash flow situation of risk-averse investors.

1.4.1 Derivatives Defined

Derivative is a product whose value is derived from the value of one or more basic variables, called bases (underlying asset, index, or reference rate), in a contractual manner. The underlying asset can be equity, forex, commodity or any other asset. For example, wheat farmers may wish to sell their harvest at a future date to eliminate the risk of a change in prices by that date. Such a transaction is an example of a derivative. The price of this derivative is driven by the spot price of wheat which is the "underlying".

In the Indian context the Securities Contracts (Regulation) Act, 1956 (SC(R)A) defines "derivative" to include –

- 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.
- A contract, which derives its value from the prices, or index of prices, of underlying securities.

Derivatives are securities under the SC(R)A and hence the trading of derivatives is governed by the regulatory framework under the SC(R)A.

1.4.2 Products, Participants and Functions

Derivative contracts have several variants. The most common variants are forwards, futures, options and swaps. The following three broad categories of participants - hedgers,

speculators, and arbitrageurs trade in the derivatives market. Hedgers face risk associated with the price of an asset. They use futures or options markets to reduce or eliminate this risk. Speculators wish to bet on future movements in the price of an asset. Futures and options contracts can give them an extra leverage; that is, they can increase both the potential gains and potential losses in a speculative venture. Arbitrageurs are in business to take advantage of a discrepancy between prices in two different markets. If, for example, they see the futures price of an asset getting out of line with the cash price, they will take offsetting positions in the two markets to lock in a profit.

The derivatives market performs a number of economic functions. First, prices in an organized derivatives market reflect the perception of market participants about the future and lead the prices of underlying to the perceived future level. The prices of derivatives converge with the prices of the underlying at the expiration of the derivative contract. Thus derivatives help in discovery of future as well as current prices. Second, the derivatives market helps to transfer risks from those who have them but may not like them to those who have an appetite for them. Third, derivatives, due to their inherent nature, are linked to the underlying cash markets. With the introduction of derivatives, the underlying market witnesses higher trading volumes because of participation by more players who would not otherwise participate for lack of an arrangement to transfer risk. Fourth, speculative trades shift to a more controlled environment of derivatives market. In the absence of an organized derivatives market, speculators trade in the underlying cash markets. Margining, monitoring and surveillance of the activities of various participants become extremely difficult in these kind of mixed markets. Fifth, an important incidental benefit that flows from derivatives trading is that it acts as a catalyst for new entrepreneurial activity. The derivatives have a history of attracting many bright, creative, well-educated people with an entrepreneurial attitude. They often energize others to create new businesses, new products and new employment opportunities, the benefit of which are immense. Finally, derivatives markets help increase savings and investment in the long run. Transfer of risk enables market participants to expand their volume of activity.

1.4.3 Types of Derivatives

The most commonly used derivatives contracts are forwards, futures and options, which we shall discuss these in detail in the FMM-II later. Here we take a brief look at various derivatives contracts that have come to be used.

- **Forwards:** A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price.
- **Futures:** A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts.
- **Options:** Options are of two types - calls and puts. Calls give the buyer the right

but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

- **Warrants:** Options generally have lives of up to one year, the majority of options traded on options exchanges having a maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter.
- **LEAPS:** The acronym LEAPS means Long-Term Equity Anticipation Securities. These are options having a maturity of up to three years.
- **Baskets:** Basket options are options on portfolios of underlying assets. The underlying asset is usually a moving average or a basket of assets. Equity index options are a form of basket options.
- **Swaps:** Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used swaps are:

  *Interest rate swap*s: These entail swapping only the interest related cash flows between the parties in the same currency and

  *Currency swap*s: These entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction.
- **Swaptions:** Swaptions are options to buy or sell a swap that will become operative at the expiry of the options. Thus a swaption is an option on a forward swap. Rather than have calls and puts, the swaptions market has receiver swaptions and payer swaptions. A receiver swaption is an option to receive fixed and pay floating. A payer swaption is an option to pay fixed and receive floating.

1.5 Commodities Market

Derivatives as a tool for managing risk first originated in the commodities markets. They were then found useful as a hedging tool in financial markets as well. In India, trading in commodity futures has been in existence from the nineteenth century with organized trading in cotton through the establishment of Cotton Trade Association in 1875. Over a period of time, other commodities were permitted to be traded in futures exchanges. Regulatory constraints in 1960s resulted in virtual dismantling of the commodities future markets. It is only in the last decade that commodity future exchanges have been actively encouraged. However, the markets have been thin with poor liquidity and have not grown to any significant level. Let's look at how commodity derivatives differ from financial derivatives.

1.5.1 Difference between Commodity and Financial Derivatives

The basic concept of a derivative contract remains the same whether the underlying happens to be a commodity or a financial asset. However there are some features, which are very peculiar to commodity derivative markets. In the case of financial derivatives, most of these contracts are cash settled. Even in the case of physical settlement, financial assets are not bulky and do not need special facility for storage. Due to the bulky nature of the underlying assets, physical settlement in commodity derivatives creates the need for warehousing. Similarly, the concept of **varying quality of asset** does not really exist as far as financial underlying is concerned. However in the case of commodities, the quality of the asset underlying a contract can vary largely. This becomes an important issue to be managed. We have a brief look at these issues.

Physical Settlement: Physical settlement involves the physical delivery of the underlying commodity, typically at an accredited warehouse. The seller intending to make delivery would have to take the commodities to the designated warehouse and the buyer intending to take delivery would have to go to the designated warehouse and pick up the commodity. This may sound simple, but the physical settlement of commodities is a complex process. The issues faced in physical settlement are enormous. There are limits on storage facilities in different states. There are restrictions on interstate movement of commodities. Besides state level octroi and duties have an impact on the cost of movement of goods across locations.

Warehousing: One of the main differences between financial and commodity derivatives is the need for warehousing. In case of most exchange traded financial derivatives, all the positions are cash settled. Cash settlement involves paying up the difference in prices between the time the contract was entered into and the time the contract was closed. For instance, if a trader buys futures on a stock at Rs.100 and on the day of expiration, the futures on that stock close Rs.120, he does not really have to buy the underlying stock. All he does is take the difference of Rs.20 in cash. Similarly the person, who sold this futures contract at Rs.100, does not have to deliver the underlying stock. All he has to do is pay up the loss of Rs.20 in cash. In case of commodity derivatives however, there is a possibility of physical settlement. Which means that if the seller chooses to hand over the commodity instead of the difference in cash, the buyer must take physical delivery of the underlying asset. This requires the exchange to make an arrangement with warehouses to handle the settlements. The efficacy of the commodities settlements depends on the warehousing system available. Most international commodity exchanges used certified warehouses (CWH) for the purpose of handling physical settlements. Such CWH are required to provide storage facilities for participants in the commodities markets and to certify the quantity and quality of the underlying commodity. The advantage of this system is that a warehouse receipt becomes a good collateral, not just for settlement of exchange trades but also for other purposes too. In India, the warehousing system is not as efficient as it is in some of the other developed markets. Central and state government controlled warehouses are the major providers of agri-produce storage facilities. Apart from these, there are a few private warehousing being maintained. However

there is no clear regulatory oversight of warehousing services.

Quality of Underlying Assets: A derivatives contract is written on a given underlying. Variance in quality is not an issue in case of financial derivatives as the physical attribute is missing. When the underlying asset is a commodity, the quality of the underlying asset is of prime importance. There may be quite some variation in the quality of what is available in the marketplace. When the asset is specified, it is therefore important that the exchange stipulate the grade or grades of the commodity that are acceptable. Commodity derivatives demand good standards and quality assurance/certification procedures. A good grading system allows commodities to be traded by specification.

Currently there are various agencies that are responsible for specifying grades for commodities. For example, the Bureau of Indian Standards (BIS) under Ministry of Consumer Affairs specifies standards for processed agricultural commodities whereas AGMARK under the department of rural development under Ministry of Agriculture is responsible for promulgating standards for basic agricultural commodities. Apart from these, there are other agencies like EIA, which specify standards for export oriented commodities.

1.6 Meaning and Features of Private, Public Companies

The principal forms of business organization whose securities are traded in the Financial Markets in India are Companies – both public and private.

Companies incorporated in India and branches of foreign corporations are regulated by the Companies Act, 1956 (the Act). The Act, which has been enacted to oversee the functioning of companies in India, draws heavily from the United Kingdom's Companies Acts and although similar, is more comprehensive. The Registrar of Companies (ROC) and the Company Law Board (CLB), both working under the Department of Company Affairs, ensure compliance with the Act.

1.6.1 Types of Companies

A company can be a public or a private company and could have limited or unlimited liability. A company can be limited by shares or by guarantee. In the former, the personal liability of members is limited to the amount unpaid on their shares while in the latter; the personal liability is limited by a pre-decided nominated amount. For a company with unlimited liability, the liability of its members is unlimited. Apart from statutory government owned concerns, the most prevalent form of large business enterprises is a company incorporated with limited liability. Companies limited by guarantee and unlimited companies are relatively uncommon.

1.6.2 Private Companies

A private company incorporated under the Act has the following characteristics:

- The right to transfer shares is restricted.

- The maximum number of its shareholders is limited to 50 (excluding employees).
- No offer can be made to the public to subscribe to its shares and debentures.
- Private companies are relatively less regulated than public companies as they deal with the relatively smaller amounts of public money.

A private company is deemed to be a public company in the following situations:

- When 25 percent or more of the private company's paid-up capital is held by one or more public company.
- The private company holds 25 percent or more of the paid-up share capital of a public company.
- The private company accepts or renews deposits from the public.
- The private company's average annual turnover exceeds Rs. 250 million during a period of 3 consecutive financial years.

1.6.3 Public Companies

A public company is defined as one, which is not a private company. In other words, a public company is one on which the above restrictions do not apply. Summary of steps involved in forming a company:

STEP 1 : START

STEP 2 : Obtaining approval for the proposed name of the company from the ROC

STEP 3 : Drawing up the Memorandum of Association

STEP 4 : Drawing up the Articles of Association

STEP 5 : Getting the appropriate persons to subscribe to the Memorandum (a minimum of 7 for a public company and 2 for a private company)

STEP 6 : Payment of Registration Fee to the ROC

STEP 7 : Receipt of Certificate of Incorporation

STEP 8 : Obtain a certificate of commencement of business from the ROC in case of a public company

STEP 9 : END

1.6.4 Foreign Companies

Foreign investors can enter into the business in India either as a foreign company in the form of a liaison office/representative office, a project office and a branch office by registering themselves with Registrar of Companies (ROC), New Delhi within 30 days of setting up a place of business in India or as an Indian company in the form of a Joint Venture and wholly owned subsidiary. For opening of the foreign company specific approval of Reserve Bank of India is also required.

1.7 Types of Investment Avenues

Before starting with the deep discussion on financial markets, we must know in a broad sense about the types of investment avenues available in these markets. In other words knowing the alternative financial instruments that are bought and sold in these markets. When a person has more money than he requires for current consumption, he would be coined as a potential investor. The investor who is having extra cash could invest it in assets like stock or gold or real estate or could simply deposit it in his bank account. All of these activities in a broader sense mean investment. Now, lets define investment.

1.7.1 How do you Define Investment?

We can define investment as the process of, "sacrificing something now for the prospect of gaining something later". So, the definition implies that we have four dimensions to an investment – time, today's sacrifice and prospective gain. *Can we think of Some Transactions, which will qualify as "Investments" as per Our Definition!*

1. In order to settle down, a young couple buys a house for Rs.3 lakhs in Bangalore.
2. A wealthy farmer pays Rs.1 lakh for a piece of land in his village.
3. A cricket fan bets Rs.100 on the outcome of a test match in England.
4. A government officer buys 'units' of Unit Trust of India worth Rs 4,000.
5. A college professor buys, in anticipation of good return, 100 shares of Reliance Industries Ltd.
6. A lady clerk deposits Rs.5, 000 in a Post Office Savings Account.
7. Based on the rumor that it would be a hot issue in the market in no distant future, our friend John invests all his savings in the newly floated share issue of Fraternity Electronics Ltd., a company intending to manufacture audio and video magnetic tapes to start with, and cine sound tapes at a later stage.

1.7.2 Is there any common feature to all these investments?

A common feature of all these transactions is that something is sacrificed now for the prospects of gaining something later. For example, the wealthy farmer in transaction 2 sacrifices Rs.1 lakh now for the prospects of crop income later. The lady clerk in transaction 6 sacrifices Rs.5,000 now for the prospect of getting a larger amount later due to interest earned on the savings account. Thus, in a broad sense, all these seven transactions qualify as investment.

Lets now understand the classification of various investment alternatives.

1.8 Fixed Deposits

The term "fixed" in fixed deposits denotes the period of maturity or tenor. Fixed Deposits, therefore, pre-supposes a certain length of time for which the depositor decides to

keep the money with the bank and the rate of interest payable to the depositor is decided by this tenor. The rate of interest differs from bank to bank and is generally higher for private sector and foreign banks. This, however, does not mean that the depositor loses all his rights over the money for the duration of the tenor decided. The deposits can be withdrawn before the period is over. However, the amount of interest payable to the depositor, in such cases goes down (usually 1% to 2% less than the original rate). Moreover, as per RBI regulations there will be no interest paid for any premature withdrawals for the period 15 days to 29 or 15 to 45 days as the case may be.

Other than banks, there are non-banking financial companies and companies who float schemes from time to time for garnering deposits from the public. In the recent past, however, many such schemes have gone bust and it is very essential to look out for danger signals before putting all your eggs in one basket.

1.8.1 Things to look out for....

- Credit rating/ reputation of the group
- The rating is possibly the best way to judge the credit worthiness of a company. However, for manufacturing company deposits, it is not mandatory to get a rating. In such cases, it is better to check the size and reputation of the company or the industrial group it belongs to.
- Interest rate
- Within the same safety level (or rating), a higher interest rate is a better option. The difference in some cases can be as high as 1%.
- Diversify
- The portfolio principle applies to company deposits also. It is always better to spread deposits over different companies and industries so as to reduce risk.
- Period of deposit: The ideal period for a company deposit is 6 months to one year as it offers the liquidity option. Also, it gives an opportunity to review the company's performance.
- Periodic review of the company: As your principal and interest rests in the hand of the company, it is advisable to review the company's performance periodically.

1.8.2 Where Not To Invest?

- Companies that offers very high rates of interest, say 16% or above, when others are offering 12-13%.
- Companies with poor cash flows.
- Avoid unincorporated companies/ private limited companies, as it is difficult to judge their performance in absence of information.

- Companies with accumulated losses on their balance sheets.
- Companies with a poor dividend paying record.

1.8.3 Company Fixed Deposits

Fixed deposits in companies that earn a fixed rate of return over a period of time are called Company Fixed Deposits. Financial institutions and Non-Banking Finance Companies (NBFCs) also accept such deposits. Deposits thus mobilized are governed by the Companies Act under Section 58A. These deposits are unsecured, i.e., if the company defaults, the investor cannot sell the company to recover his capital, thus making them a risky investment option. NBFCs are small organizations, and have modest fixed and manpower costs. Therefore, they can pass on the benefits to the investor in the form of a higher rate of interest. NBFCs suffer from a credibility crisis. So be absolutely sure to check the credit rating. AAA rating is the safest. According to latest RBI guidelines, NBFCs and companies cannot offer more than 14 per cent interest on public deposits

1.8.4 Investment Objectives

Are Company Fixed Deposits Suitable for an Increase in My Investment? A Company/ NBFC Fixed Deposit provides for faster appreciation in the principal amount than bank fixed deposits and post-office schemes. However, the increase in the interest rate is essentially due to the fact that it entails more risk as compared to banks and post-office schemes.

Are Company Fixed Deposits Suitable for Income? Yes, Company/NBFC Fixed Deposits are suitable for regular income with the option to receive monthly, quarterly, half-yearly, and annual interest income. Moreover, the interest rates offered are higher than banks.

To What Extent Does a Company Deposit Protect Me Against Inflation? A Company/ NBFC Fixed Deposit provides you with limited protection against inflation, with comparatively higher returns than other assured return options.

1.8.5 Risk Considerations

How Assured Can I be Of Getting My Full Investment Back? Company Fixed Deposits are unsecured instruments, i.e., there are no assets backing them up. Therefore, in case the company/NBFC goes under, chances are that you may not get your principal sum back. It depends on the strength of the company and its ability to pay back your deposit at the time of its maturity. While investing in an NBFC, always remember to first check out its credit rating. Also, beware of NBFCs offering ridiculously high rates of interest.

How Assured Is My Income? Not at all secured. Some NBFCs have known to default on their interest and principal payments. You must check out the liquidity position and its revenue plan before investing in an NBFC.

Are Their any Risks Unique to Company Fixed Deposits? If the Company/NBFC goes

under, there is no assurance of your principal amount. Moreover, there is no guarantee of your receiving the regular-interval income from the company. Inflation and interest rate movements are one of the major factors affecting the decision to invest in a Company/ NBFC Fixed Deposit. Also, you must keep the safety considerations and the company/ NBFC's credit rating and credibility in mind before investing in one.

Are Company/NBFC Deposits rated for their credit Quality? Yes, Company/NBFC Fixed Deposits are rated by credit rating agencies like CARE, CRISIL and ICRA. A company rated lower by credit rating agency is likely to offer a higher rate of interest and vice-versa. An AAA rating signifies highest safety, and D or FD means the company is in default.

1.8.6 Buying, Selling, and Holding

How do I Buy a Company/NBFC Fixed Deposit? Company Fixed Deposits forms is available through various broking agencies or directly with the companies. Similar is the case for the NBFCs, Some of the options available are – Monthly income deposits, where interest is paid every month – Quarterly income deposits, where interest is paid once every quarter – Cumulative deposits, where interest is accumulated and paid along with the principal at the time of maturity – Recurring deposits, similar to the recurring deposits of banks.

What Is The Minimum Investment And The Range Of Investment for A Company / NBFC Fixed Deposit? Minimum investment in a Company/NBFC Fixed deposit varies from company to company. Normally, the minimum investment is Rs.5,000. For individual investors, there is no upper ceiling. In case of recurring deposits, the minimum amount is normally Rs.100 per month.

What is The Duration of The Company/NBFC Fixed Deposit Scheme? Company / NBFC Fixed Deposits have varying duration; they may vary from a minimum of 6 months to 5 years or even more.

Can a Company FD be sold in the Secondary Market? No, a company/NBFC Fixed Deposit can only be en-cashed at the Company/ NBFC it was invested in.

What is the Liquidity of a Company/NBFC Fixed Deposit? A company/NBFC Fixed Deposit is liquid to the extent that premature withdrawal is allowed, but it entails a loss of interest.

How is the Market Value of a Company/NBFC fixed Deposit Determined, and How Do I Keep Track of It? Company/NBFC Fixed Deposits do not have a market value since they can't be sold or purchased in the secondary market.

What is The Mode of Holding a Company/NBFC Fixed Deposit? When a depositor invests in a Company/NBFC Fixed Deposit, a receipt and acknowledgement is issued to him.

Tax Implications

Interest from a Company/NBFC Fixed Deposit is fully taxable, and is not covered under Section 80L of the Income Tax Act. Therefore no deductions are allowed from interest income.

1.9 Bank Deposits

When you deposit a certain sum in a bank with a fixed rate of interest and a specified time period, it is called a bank Fixed Deposit (FD). At maturity, you are entitled to receive the principal amount as well as the interest earned at the pre-specified rate during that period. The rate of interest for Bank Fixed Deposits varies between 4 and 6 per cent, depending on the maturity period of the FD and the amount invested. The interest can be calculated monthly, quarterly, half-yearly, or annually, and varies from bank to bank. They are one the most common savings avenue, and account for a substantial portion of an average investor's savings. The facilities vary from bank to bank. Some services offered are withdrawal through cheques on maturity; break deposit through premature withdrawal; and overdraft facility etc.

1.9.1 Investment Objectives

How Suitable are Fixed Deposits for an Increase in My Investment? While a Bank FD does provide for an increase in your initial investment, it may be at a lower rate than other comparable fixed-return instruments. Since capital appreciation in any investment option depends on the safety of that option, and banks being among the safest avenues, the increase in investment is modest.

Are Fixed Deposits Suitable For Regular Income? A Bank FD does not provide regular interest income, but a lump-sum amount on its maturity. Since the lump-sum amount depends on the rate of interest, currently between 4 and 6 per cent, Bank FDs are not suitable for regular income.

To What Extent Does a Bank FD Protect Me Against Inflation? With a fixed return, which is lower than other assured return options, banks cannot guard against inflation. In fact, this is the main problem with Bank FDs as any return has to be calculated keeping inflation in mind.

Can I Borrow Against Bank FDs? Yes, in some cases, loans up to 90 per cent of the deposit amount can be taken from the bank against fixed deposit receipts.

1.9.2 Risk Considerations

How assured can I be of getting my Full Investment Back? Almost 100 per cent. Bank Deposits are the safest investment option after post-office schemes since the banks

function according to the parameters set by the Reserve Bank of India (RBI), which frames regulations keeping in mind the interest of the investors.

How Assured Is My Income? There is no regular income in this option as the payment is made in one lump sum after the expiry of the tenure of the Bank Fixed Deposit.

Are There Any Risks Unique To Bank FDs? Not really. Since all the banks operating in the country, irrespective of whether they are nationalized, private, or foreign, are governed by the RBI's rules and regulations, which give due weight age to the interest of the investor, there is little chance of an investment in a bank deposit going under. In fact, till recently, all bank deposits were insured under the Deposit Insurance & Credit Guarantee Scheme of India, which has now been made optional. Nevertheless, bank deposits are still among the safest modes of investment. The thing to consider before investing in a FD is the rate of interest and the inflation rate. A high inflation rate can simply chip away your real returns. So, it is critical to take the inflation rate into consideration to arrive at the real rate of interest.

Are Bank FDs rated for their Credit Quality? No, Bank FDs are not commercially rated. Since Bank FDs are extremely secure; the only thing to check out while investing in one is the interest rate being offered and your convenience.

Interest Rates Payable on Deposits

Duration	Interest Rates (% p.a.) Effective 11th Dec 2006
7 days to 14 days (Rs.1 cr and above)	3.75
15 days to 45 days	5.00
46 days to 179 days	5.50
180 days to less than 1 year	6.50
1 year to less than 3 years	7.50
3 years to less than 5 years	7.75
5 years and up to 10 years	8.00

Source: State Bank of India

1.9.3 Buying, Selling, and Holding

How Do I Open A Bank Fixed Deposit Account? You can get a bank FD at any bank, be it nationalized, private, or foreign. You have to open a FD account with the bank, and make the deposit. However, some banks insist that you maintain a savings account with them to operate a FD.

What is the Minimum Investment and the Range of Investment for Bank FDs? Minimum investment in an FD varies from bank to bank. It could be as low as Rs.500 in case

of nationalized banks, and could go up to Rs.10,000 in private banks and Rs.50,000 in some foreign banks. Banks are free to offer interest rates on their FDs, depending on the interest rate scenario, the government's monetary policy, and their own money supply position.

What is the Duration of a Bank FD? Bank FDs have varying duration: from 15 days to more than 5 years. Depending on their duration, the interest also varies.

Can Bank FDs be sold in The Secondary Market? No, a bank FD can only be en-cashed from the bank it was taken from.
What is the Liquidity of Bank FDs? Bank FDs are liquid to the extent that premature withdrawal of a bank FD is allowed. However, that involves a loss of interest.

How is the Market Value of a Bank FD Determined, and how do I Keep Track of It? Since Bank FDs cannot be sold in the market; they do not have a market value. An individual bank, keeping the market forces in mind, determines the interest on a Bank FD. Banks periodically mail to you account statements or issue passbooks through which you can track your account status.

What is the Mode of Holding a Bank FD? When a depositor opens an FD account with a bank, a passbook or an account statement is issued to him, which can be updated from time to time, depending on the duration of the FD and the frequency of the interest calculation.

Tax Implications

Interest income from a Bank FD qualifies for taxation, which means that you pay tax as per your income slab.

1.10 Recurring Bank Deposits

Under a Recurring Bank Deposit, you invest a specific amount in a bank on a monthly basis for a fixed rate of return. The deposit has a fixed tenure, at the end of which you get your principal sum as well as the interest earned during that period. The rate of interest, calculated quarterly or as specified by the bank, varies between 4 and 6 per cent, depending on the maturity period and the amount invested. A Recurring Bank Deposit is a powerful tool for regular savings.

1.10.1 Investment Objectives

Are Recurring Bank Deposits Suitable for an Increase in My Investment? A Recurring Bank Deposit, by definition, is supposed to appreciate in value over time. However, the rate at which it appreciates is pre-determined by the rate of interest specified. It accumulates money at a fixed rate, compounded quarterly or as the bank may specify, and your investments appreciate regularly during the tenure of the account. Since capital appreciation in any investment option depends on the safety of that option, and banks

being among the safest avenues, the increase in investment is modest. Go for it if you want to set aside a fixed amount every month for savings.

How Your Money Grows In A Recurring Deposit

Amount Invested (per month)	Maturity Amount In 2 Years*
Rs. 100	Rs. 2,621
Rs. 500	Rs. 13,106
Rs. 750	Rs. 19,659
Rs. 3,000	Rs. 78,634

* Assuming a return of 5 per cent compounded quarterly

Are Recurring Bank Deposits Suitable For Income? No, a recurring deposit is not meant for regular income since you get a fixed sum at the end of the tenure of the deposit.

To What Extent does a Recurring Deposit Protect me against Inflation? Since a recurring deposit offers a fixed rate of return, it cannot guard against inflation if it is more than the rate of return offered by the bank. Worse, lower the gap between the interest rate on a recurring deposit and inflation, lower your real rate of return.

Can I Borrow Against a Recurring Bank Deposit? Yes, by fulfilling certain conditions, one can apply for a loan against a Recurring Bank Deposit. However, again, you will lose out on a part of the interest income if you do go in for a loan against it with the same bank.

1.10.2 Risk Considerations

How Assured can I be of Getting My Full Investment Back? Almost 100 per cent. All banks functioning in the country fall under the jurisdiction of the RBI, and have to necessarily comply with the rules and regulations stipulated by the central bank under the Banking Regulation Act. Now, the norms specified by the RBI are fairly stringent, and a reasonably refined system is in place that ensures complete transparency of the bank's operating procedures and systems, thus making the RBI aware of the financial health of the bank at all times. Moreover, the RBI's code regarding the Non-Performing Assets (NPAs) and the Cash Reserve Ratio (CRR) are pretty elaborate and explicit, thus acting as a safety net for the investor.

How Assured is My Income? There is no regular income in this option as the payment is made in one lump sum after the expiry of the tenure of the Recurring Bank Deposit.

Are There any Risks Unique to Recurring Bank Deposits? Not really. Since all banks operating in the country, irrespective of whether they are nationalized, private, or foreign, are governed by the RBI's stringent rules and regulations, which give due weight age to the interest of the investor, there is little chance of an investment in a Recurring Bank Deposit going under. In fact, till recently, all bank deposits were insured under the Deposit

Insurance & Credit Guarantee Scheme of India, which has now been made optional, and a lot of banks have opted out of it. Nevertheless, bank deposits are among the safest modes of investment. The thing to consider before investing in a Recurring Bank Deposit is the inflation rate. A high inflation rate can simply chip away your returns. So, it is critical to take the inflation rate into consideration to arrive at the real rate of interest.

Are Recurring Bank Deposits rated for their Credit Quality? No, bank deposits are not commercially rated. Since bank deposits are extremely secure, the only thing to check out while investing in one is the interest rate being offered and your convenience.

1.10.3 Buying, Selling and Holding

Deposit? A Recurring Bank Deposit account can be opened at any branch of a bank that offers this facility. However, some banks insist that you maintain a savings bank account with them to operate a Recurring Bank Deposit account. Do check up the terms and conditions as they vary from bank to bank.

What are the Minimum Investment and the Range of Investment for a Recurring Bank Deposit? The minimum investment varies from bank to bank. SBI has kept the minimum investment amount at Rs.100 per month and there is no upper limit on the same. Banks can change their recurring deposit rates depending on the money supply position. In case you do have a savings bank account with the same bank, the amount due every month for the Recurring Bank Deposit will be automatically deducted from your savings account.

What is the Duration of the Recurring Bank Deposit Scheme? The Recurring Bank Deposit scheme varies from bank to bank. However, the minimum period is at least 6 months.

Can a Recurring Bank Deposit be sold in the Secondary Market? No, a Recurring Deposit can only be en-cashed from the bank it was taken from.

What is the Liquidity of a Recurring Bank Deposit? A Recurring Bank Deposit is liquid to the extent that premature withdrawal is allowed, but it entails a loss of interest.

How is The Market Value of a Recurring Bank Deposit Determined, and how do I Keep Track of It? Since a recurring deposit is not traded, it does not have a market value. Investors can get regular updates from their bank on the accumulated sum.

What is the Mode of Holding a Recurring Bank Deposit? When a depositor opens a Recurring Bank Deposit account with a bank, a passbook or an account statement is issued to him.

Tax Implications

Interest income from a Recurring Bank Deposit qualifies for taxation, which means that you pay tax as per your income slab.

1.11 Employees Provident Fund (EPF)

The Employees Provident Fund (EPF) was first established on 1 October 1951 under the EPF Ordinance 1951 which was subsequently known as the EPF Act 1951. The EPF Act 1951 has since then been replaced by the EPF Act 1991 in June 1991. Besides being the world's oldest national provident fund, EPF is also one of the most successful funds of its kind, providing a compulsory savings scheme to ensure security and well being in old age. The first contributions were received in July 1952, totaling Rs.2.6 million.

The EPF is under the jurisdiction of a Board, which consists of 20 members who are appointed by the Minister of Finance. The EPF Board is made up of a Chairman, a Deputy Chairman and 18 other members, which comprise of –

- 5 Government Representatives
- 5 Employer Representatives
- 5 Employee Representatives
- 3 Professional Representatives

The EPF Board is responsible for formulating EPF policies and to ensure implementation of these policies. Apart from the Board, the EPF also has an Investment Panel, which is responsible to formulate EPF investment policies. The Minister of Finance also appoints the members of the Investment Panel. The Panel is made up of a Chairman, a representative of the Governor of Bank Negara Malaysia, a representative from the Ministry of Finance and three others who are experts in financial, business and investment related matters.

The EPF Headquarters is situated in the EPF building in Kuala Lumpur. Apart from the Headquarters, the EPF has 14 State Offices and 33 Local Offices throughout the country.

1.11.1 The Role of EPF

As a statutory body and a trustee fund, the main role of the EPF is to provide financial security to its members, especially after retirement, through a compulsory savings scheme.

1.11.2 Members of EPF

When the EPF was first set up, its aim was to safeguard interests of the lower income group of private sector employees. The scheme originally covered workers of 16 years of age and above, who earned not more than Rs.400 and were on the payroll of an employer with a staff of over 10.

Prior to the EPF's establishment, there were a number of private funds in operation for the mining and plantation sectors, which were the mainstay of the economy at the

time. Contributions were not uniform. The then Federal Labour Department mooted the idea of a uniform scheme for certain categories of workers and the Government decided to implement a compulsory national savings scheme to provide security to the lower-income group.

The scheme was extended to all workers except for pension-able public sector employees by the 1970s. Today, EPF's primary members are the private and non-pension-able public sector employees.

1.11.3 How does EPF Operate?

Under the EPF Act 1991, the employer and employee are required to contribute (remit a percentage of the employee's salary) to EPF based on the rate of contribution set by the EPF Act. Expatriates (other than Singapore citizens), foreign workers and domestic servants and their employers are not required to contribute to EPF, but they can voluntarily do so.

This contribution will be invested to accumulate interest or dividend. By the time a member retires, therefore, he has a considerable amount of savings, with compounded dividend, which he can withdraw to provide for his financial needs.

1.11.4 Rates of Contributions

At present, the statutory rates of contribution for the employer and employee are 12% and 11% of the employee's wages respectively. Employers and employees are, however, allowed to elect to contribute at rates higher than the statutory rates.

1.11.5 Members' Accounts

Each member's accounts in EPF is subdivided and maintained in 3 separate accounts:

- Account 1: For retirement purposes at age 55 – 60%
- Account 2: For housing and withdrawal at age 50 – 30%
- Account 3: For health and medical costs 10%

1.11.6 Withdrawals

EPF members are entitled to withdraw the full amount of contributions:

- On the death of the member (withdrawal made by beneficiaries)
- On attaining the age of 55 years
- If the member is prevented from engaging in any further employment by reasons of physical or mental incapacitation
- On leaving Malaysia permanently (for non-Malaysians)
- Under Account 2 for the purchase or construction of a residential house or for purposes of reducing a housing mortgage on satisfying the prescribed conditions

- Under Account 3 to meet medical treatment costs. Contributors below the age of 55 years with more than Rs.50, 000 under Account 1 are allowed to invest up to 20% of their funds in unit trusts beginning from 1997.

1.11.7 Employees' Provident Fund Scheme 1952

Employee Definition: "Employee" as defined in Section 2(f) of the Act means any person who is employee for wages in any kind of work manual or otherwise, in or in connection with the work of an establishment and who gets wages directly or indirectly from the employer and includes any person employed by or through a contractor in or in connection with the work of the establishment.

Membership: All the employees (including casual, part time, Daily wage contract etc.) other then an excluded employee are required to be enrolled as members of the fund the day, the Act comes into force in such establishment. Employees' Provident Fund Scheme takes care of following needs of the members:

1. Retirement
2. Medical Care
3. Housing
4. Family obligation
5. Education of Children
6. Financing of Insurance Polices

Basic Wages: "Basic Wages" means all emoluments, which are earned by employee while on duty or on leave or holiday with wages in either case in accordance with the terms of the contract of employment and which are paid or payable in cash, but does not include the cash value of any food concession; any dearness allowance (that is to say, all cash payment by whatever name called paid to an employee on account of a rise in the cost of living), house rent allowance, overtime allowance, bonus, commission or any other allowance payable to the employee in respect of employment or of work done in such employment, any present made by the employer.

Excluded Employee: "Exclude Employee" as defined under pare 2(f) of the Employees' Provident Fund Scheme means an employee who having been a member of the fund has withdrawn the full amount of accumulation in the fund on retirement from service after attaining the age of 55 years; Or An employee, whose pay exceeds Rs. Five Thousand per month at the time, otherwise entitled to become a member of the fund.

Explanation: 'Pay' includes basic wages with dearness allowance, retaining allowance, (if any) and cash value of food concessions admissible there on.

How the Employees' Provident Fund Scheme works: As per amendment – dated 22.9.1997 in the Act, both the employees and employer contribute to the fund at the rate of 12% of the basic wages, dearness allowance and retaining allowance, if any, payable to employees per month. The rate of contribution is 10% in the case of following establishments:

- Any covered establishment with less then 20 employees, for establishments covers prior to 22.9.97.
- Any sick industrial company as defined in clause (O) of Sub-section (1) of Section 3 of the Sick Industrial Companies (Special Provisions) Act, 1985 and which has been declared as such by the Board for Industrial and Financial Reconstruction.
- Any establishment, which has at the end of any financial year accumulated losses equal to or exceeding its entire net worth.
- Any establishment engaged in manufacturing of (a) jute (b) breed (c) coir and (d) guar gum Industries/ Factories.

1.11.8 Employees' Provident Fund Interest Rate

The rate of interest is fixed by the Central Government in consultation with the Central Board of trustees, Employees' Provident Fund every year during March/April. The interest is credited to the members account on monthly running balance with effect from the last day in each year.

1.11.9 Benefits

1. A member of the provident fund can withdraw full amount at the credit in the fund on retirement from service after attaining the age of 55 year. Full amount in provident fund can also be withdraw by the member under the following circumstance:
   - A member who has not attained the age of 55 year at the time of termination of service.
   - A member is retired on account of permanent and total disablement due to bodily or mental infirmity.
   - On migration from India for permanent settlement abroad or for taking employment abroad.
   - In the case of mass or individual retrenchment.

2. In the case of the following contingencies, the payment of provident fund be made after complementing a continuous period of not less than two months immediately preceding the date on which the application for withdrawal is made by the member:
   - Where employees of close establishment are transferred to other establishment, which is not covered under the Act.
   - Where a member is discharged and is given retrenchment compensation under the Industrial Dispute Act, 1947.

1.11.10 Withdrawal Before Retirement

A member can withdraw up to 90% of the amount of provident fund at credit after attaining the age of 54 years or within one year before actual retirement on superannuation whichever is later. Claim application in form 19 may be submitted to the concerned Provident Fund Office.

1.11.11 Accumulations of a Deceased Member

Amount of Provident Fund at the credit of the deceased member is payable to nominees/ legal heirs. Claim application in form 20 may be submitted to the concerned Provident Fund Office.

1.11.12 Transfer of Provident Fund Account

Transfer of Provident Fund account from one region to other, from Exempted Provident Fund Trust to Unexampled Fund in a region and vice-versa can be done as per Scheme. Transfer Application in form 13 may be submitted to the concerned Provident Fund Office.

1.11.13 Nomination

The member of Provident Fund shall make a declaration in Form 2, a nomination conferring the right to receive the amount that may stand to the credit in the fund in the event of death. The member may furnish the particulars concerning himself and his family. These particulars furnished by the member of Provident Fund in Form 2 will help the Organization in the building up the data bank for use in event of death of the member.

1.11.14 Annual Statement of Account

As soon as possible and after the close of each period of currency of contribution, annual statements of accounts will be sent to each member of the current establishment or other establishment where the member was last employed. The statement of accounts in the fund will show the opening balance at the beginning of the period, amount contribution during the year, the total amount of interest credited at the end of the period or any withdrawal during the period and the closing balance at the end of the period. Member should satisfy themselves as to the correctness of the annual statement of accounts and any error should be brought through employer to the notice of the correctness to the Provident Fund Office within 6 months of the receipt of the statement.

1.12 Public Provident Fund (PPF)

`How Your Money In A PPF Account Grows

Amount Invested Per Annum	Amount Received After 15 Years*
Rs. 100	Rs. 2,932
Rs. 5,000	Rs. 1,46,621
Rs. 10,000	Rs. 2,93,243
Rs. 15,000	Rs. 4,39,864
Rs. 30,000	Rs. 8,79,728
Rs. 45,000	Rs. 13,19,593
Rs. 60,000	Rs. 17,59,457

* Return offered is 8% per annum

A Public Provident Fund (PPF) is a long-term savings plan with powerful tax benefits. Your money grows @ 8 per cent per annum, and this is guaranteed by the Government of India (GOI). You may consider this option if you are not looking for short-term liquidity or regular income. Normal maturity period is 15 years from the close of the financial year in which the initial subscription was made. Maturity values for your PPF account depending on what you invest each year

1.12.1 Investment Objectives

How Suitable Is A PPF Account For An Increase In My Investment? A PPF account is not aimed at generating capital appreciation since it has no secondary market. It is mainly suitable for long-term saving and for availing of tax incentives. The lump-sum amount that you receive on maturity (at the end of 15 years) is completely tax-free.

Is A Public Provident Fund Account Suitable For Regular Income? PPF does not provide any avenues for regular income. It provides for accumulation of interest income over a 15-year period, and the lump-sum amount (principal + interest) is payable on maturity.

To What Extent does a PPF Account Protect Me Against Inflation? A PPF account does not provide protection against high inflation. In certain years when the inflation rate is high, the real rate of return on your PPF may be marginal. This depends on the prevailing rate of interest on your PPF at any given time. These rates are notified by the GOI in the Official Gazette from time to time, and are calculated in such manner as is specified in the scheme.

Can I Borrow against my PPF Account? Yes, loans can be availed of from the third to sixth year @ 1 per cent per annum if repaid within 36 months. Else, interest on loan is set at 6 per cent per annum. Amount of such loans will not exceed 25 per cent of the amount that stood to your credit at the end of the second year immediately preceding the year in which the loan is applied for. You will continue to earn interest at the specified rate on your balance in the PPF Account after availing of the loan facility.

1.12.2 Risk Considerations

How Assured can I be of getting My Full Investment Back? Your principal is assured. The PPF Scheme has the backing of the GOI, and is considered completely risk-free.

How Assured is My Income? Since the PPF Scheme is backed by the GOI, your interest income is assured.

Is there any Risks Unique to PPF Scheme? No, you can safely put your money in a PPF Scheme, as it is risk-free. Although factors like inflation and interest rate fluctuations may determine whether you opt for a PPF Account or not, the decision to invest in a PPF Account is based on the twin benefits of long-term savings and tax incentives. Please note that if the government reduces interest rates and you are already operating an account, then the new interest rates will be applicable to your account. Subsequent

interest calculations will be on the new rate of interest.

Is the PPF Scheme rated for their Credit Quality? No, since the PPF Scheme has the backing of the GOI, it does not require any commercial rating.

1.12.3 Buying, Selling, and Holding

How do I Open a PPF Account? A PPF Account can be opened in any Head Post-Office, GPO, any Selection Grade Post Office, any branch of the State Bank of India, and selected branches of other nationalized banks.

What is the Minimum Investment and Range of Investment for Maintaining a PPF Account? The minimum investment in a PPF account is Rs.100 per annum for each year of the Scheme. The maximum prescribed contribution for tax purposes is Rs.100,000 per annum. The highlight of the scheme is that you can vary your investments between Rs.100 and Rs.100,000 every year in multiples of Rs.5. The maximum number of installments in a year is 12. No fixed investment is required.

Public Provident Fund

Scheme	Public Provident Fund
Tenure	15 years and then optional extension in blocks of 5 years
Issue date	Perpetually open
Closure date	At the end of the 15th year
Interest	8%
Interest payment	Yearly (Computed on monthly balance)
Minimum investment	Rs.500
Maximum investment	Rs.70,000 (for tax benefit) per financial year
Tax benefit	Sec.80C of I.T. Act 1961
Loan Facility	Available. Loans can be obtained up to 25% of the balance at the end of the 2nd preceding financial year in the 3rd year of opening account. This loan is repayable in 3 years at an interest rate 1% above the prevalent PPF rate. Thus the repayment rate is now 12%. After the repayment of the first loan is affected, a second loan can be taken. This loan facility ceases after the end of the 6th financial year as after that the withdrawal facility starts.
Withdrawal	Available. From the 7th year and every year thereafter, the account holder is allowed to withdraw a maximum of 50% of the balance that is to his/her credit at the end of the 4th or the 1st previous financial year, whichever is lower.
Remarks	Benefits are two fold, up to Rs.70,000 paid each year in the account is available as a tax rebate and the interest earned is tax free. The account can be opened even at any of the select few nationalized banks also.

What is the Duration of a PPF Scheme? The duration of a PPF account is 15 years, i.e., 15 complete financial years. If a person opens a PPF account on February 9, 2006, the account will mature on April 1, 2022. Even after the expiry of 15 years, the PPF Account can be extended for duration of five years at a time.

Can a PPF Account be sold in the Secondary Market? No.

What is the Liquidity of My PPF Account? On expiry of five financial years from the end of the financial year in which the initial subscription was made, you have the facility of one withdrawal every year. The maximum amount available for withdrawal is 50 per cent of the balance at the end of the year immediately preceding the year of withdrawal or the fourth year immediately preceding the year of withdrawal, whichever is lower. For instance, if you have Rs.50,000 at the end of the fifth financial year, and Rs.90,000 at the end of the eighth financial year, you can withdraw up to Rs.25,000 (50 per cent of Rs.50,000). Importantly, there are no penalties for availing of the withdrawal facility. **How is the Market Value of My PPF Account Determined?** As mentioned earlier, since a PPF Account does not have a secondary market, it cannot be traded. Therefore, the question of market value of a PPF Account does not arise. However, investors can get updates on their account balances from the bank where the PPF account is held.

What is The Mode of Holding of A PPF Account? A PPF Account passbook is issued to the depositor by the bank where the account is held, which can be updated from time to time.

Tax Implications

Besides long-term savings, the most attractive feature of PPF is the tax incentives it offers. The interest income earned in PPF and the lump-sum amount received on maturity or premature withdrawal is completely tax-free as per the pro-visions of the Income Tax Act, 1961.

1.13 Life Insurance

A life insurance policy is a contract between an individual (termed as insured) and an insurance company (insurer) to pay the insured, or his nominated heirs, a specified sum of money on the happening of an event. The event could be the expiry of the insurance policy or the death of the insured before the expiry (date of maturity) of the policy as per the terms of the policy. In a simple example, a person takes an insurance policy and nominates his wife as the beneficiary. On the death of this person, his wife gets the amount for which the life insurance policy was purchased. There are many variants of a life insurance policy:

1. **Whole Life Assurance Plans:** These are low-cost insurance plans where the sum assured is payable on the death of the insured
2. **Endowment Assurance Plans:** Under these plans, the sum assured is pay-able on

the maturity of the policy or in case of death of the insured individual before maturity of the policy.

3. **Term Assurance Plans:** Under these plans, the sum assured is payable only on the death of the insured individual before expiry of the policy.
4. **Pension Plans:** These plans provide for either immediate or deferred pension for life. The pension payments are made till the death of the annuitant (person who has a pension plan) unless the policy has provision of guaranteed period.

Life Insurance Corporation (LIC) is a government company. Till the year 2000, the LIC was the sole provider of life insurance policies to the Indian public. However, the Insurance Regulatory & Development Authority (IRDA) has now issued licenses to private companies to conduct the business of life insurance. Some of the major private players in the sector are:

- Bajaj Allianz Life Insurance Corporation
- Birla SunLife Insurance Co. Ltd.
- HDFC Standard Life Insurance Co. Ltd.
- ICICI Prudential Life Insurance Co. Ltd.
- ING Vysya Life Insurance Co. Pvt. Ltd.
- MAX New York Life Insurance Co. Ltd.
- MetLife India Insurance Co. Pvt. Ltd.
- Kotak Mahindra Old Mutual Life Insurance Co. Ltd.
- SBI Life Insurance Co. Ltd.
- TATA AIG Life Insurance Co. Ltd.
- AMP Sanmar Assurance Co. Ltd.
- AVIVA Life Insurance Co. Pvt. Ltd.
- Sahara India Life Insurance Co. Ltd.
- Shriram Life Insurance Co. Ltd.

1.13.1 Investment Objectives

How Suitable is a Life Insurance Policy for an Increase in My Investment? The role of a life insurance policy is to financially cover the risk of death. If an individual has dependants who will incur financial loss due to his/her death, then he/she should avail of life insurance policies. However, life insurance is often utilized for purposes like provision for old age (pension plans), children's education, savings alternative, or as a tax-saving alternative.

Are Life Insurance Plans Suitable For Regular Income? Not in general, but annuity or pension plans are often good for the purpose.

Do Life Insurance Policies Protect Me Against Inflation? No, life insurance plans do not offer any protection against inflation.

Can I Borrow Against a Life Insurance Plan? Yes, loans can be raised on the sole security of a policy that has acquired loan value. Besides, a life insurance policy is also generally accepted as security even for a commercial loan.

1.13.2 Risk Considerations

How Assured can I Be of Getting My Full Investment Back? Companies operating in the Life Insurance sector are governed by strict regulations, and are among the safest places to put your money in. You can be assured of getting your investment back. LIC is a government company, and all players in this sector are regulated by the IRDA.

How Assured Is My Income? Your income is assured. Insurance companies are, in general, safe avenues for putting your money in.

Are There Any Risks Unique To Life Insurance Plans? There are no risks associated with putting your money in life insurance plans. In India, psychological factors affect the buy and sell decisions of Life Insurance Plans to a large extent. Although insurance schemes are meant mainly for minimizing risk, most view it as an avenue for long-term saving and tax savings. This viewpoint depends on the policy and the government's tax incentives.

Are Life Insurance Plans rated for their credit quality? No, neither insurance companies nor their products are commercially rated.

1.13.3 Buying, Selling, and Holding

How Do I Buy An Insurance Policy? Insurance policies are sold through insurance agents. You can contact an insurance agent or any branch of the LIC or any other private player for details. Regular payments (called premium) have to be made to the company in order to maintain an insurance policy. In some cases, a lump-sum payment suffices. The normal procedure entails filling up an application form and undergoing a medical examination (depending on the policy amount and your age). On submission of a report by the insurance agent, the company assesses the risk, accepts the proposal, and issues the policy.

What Is The Minimum Investment On A Life Insurance Plan? The minimum investment on a policy depends upon the type of policy, duration, and premium to be paid, and other factors.

What Is The Duration Of An Insurance Policy? There is no one standard duration for all insurance policies. Duration of the policy depends on the specific policy you are applying for.

Can Insurance Policies Be Sold In The Secondary Market? No, insurance policies cannot be sold in the secondary market. However, they can be transferred to another person through assignment of the policy.

What Is The Liquidity Of Life Insurance Policies? Usually, life insurance policies do not offer liquidity. These are meant to be long-term investments of a specific nature i.e., financial cover for dependants of the insured in the event of his/her death. However, one can opt for early withdrawal from an insurance policy, albeit with penalties in certain cases.

How Is The Market Value Of A Life Insurance Policy Determined? Since there is no secondary market for a life insurance policy, the question of market value of a life insurance policy does not arise. However, as mentioned earlier, a policy can be used to pledge against loans.

What Is The Mode of Holding A Life Insurance Policy? Life insurance policies are held in the form of physical Policy Certificates that are issued by the insuring company.

Tax Implications

Life insurance policies are eligible for tax benefits as per the provisions of the Income Tax Act, 1961. The premium paid, up to Rs.100,000, totally qualifies for tax rebate under Section 80 of the Income Tax Act, 1961.

1.14 Post Office Savings

Post Office Savings is an investment option that pays annual interest rate of 3.5 percent; Cumulatively compounded yearly, and is available through post-offices across the country.

1.14.1 Investment Objectives

How suitable are Post Office Savings for an Increase in My Investment? Post Office Savings are suitable for capital appreciation in the sense that your money grows at a pre-determined rate. Unlike certain other investment options, where returns are commensurate with the risks, the rate of growth is reasonable; Post office savings returns are lower, but safer, growth in investment. Therefore, they are one of the better ways to get relatively liquid returns for your savings. The only condition is that there is no premature withdrawal facility; instead you can withdraw it anytime.

Are Post Office Savings Suitable for Regular Income? No, Post Office Savings are not meant for regular income. Since, as they are cumulated, you get a lump sum (principal + interest) at the time of withdrawal.

To What Extent does the Post Office Savings Protect Me Against Inflation? They are not the ideal investment option if the rate of inflation is either too high or is fluctuating

beyond a limit. Since the rate of return in case of a Post Office Savings is fixed, they cannot guard you against a high rate of inflation.

Can I Borrow Against Post Office Savings? No, you cannot borrow against a Post Office Savings. The balance in your account can be withdrawn anytime.

1.14.2 Risk Considerations

How Assured can I be of Getting My Full Investment Back? With Government of India-backing, your principal is as assured as it is in any other post office account.

How Assured Is My Income? With backing from the Government of India, your interest income from Post Office Savings is assured.

Is There Any Risks Unique To Investing in a Post Office Savings? No, there are no risks unique to this investment option. Only, if the rate of inflation is higher than your rate of returns, or in case the inflation is fluctuating too much, your real returns may be negative also. With a low coupon, your real returns will simply disappear during high inflation. So, while investing in a Post Office Savings, keep in mind the prevailing inflation rate and calculate your real returns before opting for one.

Are Post Office Savings rated for their Credit Quality? No, Post Office Savings, like any other post-office investment instrument, are not commercially rated since they are backed by the GOI and are extremely safe.

1.14.3 Buying, Selling, and Holding

How Do I Buy a Post Office Savings? A Post Office Savings account can be opened at any post-office.

What Is The Minimum Investment And Range Of Investment for a Post Office Savings? The minimum investment in a Post Office Savings could be as low as Rs.20. For individuals the maximum deposits can go up to Rs.100,000, whereas in the case of joint account holders the maximum deposits in a calendar year can go up to Rs.200,000.

What Is The Duration Of Post Office Savings? Post Office Savings have no fixed term. The scheme pays annual interest, compounded annually, thus giving a reasonable yield.

Can Post Office Savings Be Sold in The Secondary Market? No, Post Office Savings can only be bought from a post-office and can be en-cashed from there itself, anytime.

What is The Liquidity of Post Office Time Deposit? Since Post Office Savings can be withdrawn anytime, they entail a high degree of liquidity and marketability.

How is The Market Value of Post Office Savings Determined? Since a Post Office Savings is not traded, it does not have a market value. Updates on your Post Office Savings account can be had from the post-office where you have opened an account. Also, any changes in the interest rates are advertised through national dailies.

What is The Mode of Holding of a Post Office Savings? You can open a Post Office Savings either as a single holder, or with a partner under a joint account. On opening a Savings account, you will receive an account statement stating the amount deposited and the interest to be earned on the account.

Tax Implications

Investment in Post Office Savings account for a maximum investment of Rs.100,000, per financial year is totally exempt from tax under section 80C of the Income Tax Act, 1961. The Interest Income is also exempted from tax under section 10 of Income Tax Act, 1961.

Post Office Savings: Savings Account	
Who can invest?	a) Single Account • An individual (18 years & above) • A minor who has attained the age of 10 years • A guardian on behalf of a minor • A guardian of a person of unsound mind b) Joint Account – Two or three adults
How much you can invest?	• Single Account – Minimum Rs.20 and up to Rs.1 lac • Joint Account – Minimum Rs.20 and up to Rs.2 lac
How much do you earn?	3.5 %
When interest is compounded?	Yearly
When interest is paid?	Yearly
Cumulative/ Non-cumulative?	Cumulative
When you can withdraw?	Any time
What do you get on redemption?	Amount balance in the account
Premature withdrawal facility?	Not applicable
Premature withdrawal terms?	Any time
Marketability?	Very good
Is it safe?	Very safe
Is it secured?	Secured
Is it convenient?	• Open at any Post Offices • Cheque facility • Minimum balance low
Can you get a loan?	Not applicable

Is the income taxable?	Totally tax free U/s 80c of Income Tax Act, 1961
Any other tax concessions?	Interest income exempted from income tax U/s 10 of Income Tax Act, 1961
Is nomination facility available?	Yes

Post Office Savings: Recurring Deposit Account

Who can invest?	a) A Single adult b) Two adults jointly, the amount due on the account being payable • To both jointly or survivor • To either of them or survivor c) A guardian on behalf of a minor or a person of unsound mind d) A minor who has attained the age of ten years in his own name
How much you can invest?	Rs.10 per month to any amount
How much do you earn?	7.5 %
When interest is compounded?	Quarterly
When interest is paid?	Yearly
Cumulative/ Non-cumulative?	Cumulative
When you can withdraw?	After 5 years • Extension of account after maturity period: Continue account, may be for a further period of five years and make monthly deposits during such extended period. • Retention of amount of repayment beyond maturity period: The Depositor may at his option, continue the account and retain in it the amount of repayment due for a further period up to maximum of five years without making any fresh deposits.
What do you get on redemption?	Amount balance in the account
Premature withdrawal facility?	After 3 years
Premature withdrawal terms?	Only once up to 50% of the balance
Marketability?	Good
Is it safe?	Very safe
Is it secured?	Secured
Is it convenient?	Open at any Post Offices

Can you get a loan?	50% of the deposits made in the account may be allowed as loan after the account has been in operation for at least one year
Is the income taxable?	• Taxable • No TDS • No Wealth Tax
Any other tax concessions?	Rebate on advance deposits • Deposits – Six or more but not exceeding eleven deposits made in a calendar month; Rebate – Rs.10 for an account of Rs.100 denomination • Deposits – Twelve or more deposits made in a calendar month; Rebate – Rs.40 for every twelve deposits of Rs.100 denomination
Is nomination facility available?	Yes

Post Office Savings: Time Deposit Account

Who can invest?	a) An Individual (above 18 years) b) A guardian on behalf of a minor or a person of unsound mind c) A minor who has attained the age of ten years in his own name d) Two individuals
How much you can invest?	Rs.200 to any amount
How much do you earn?	• 1st Year 6.25% • 2nd Year 6.50% • 3rd Year 7.25% • 5th Year 7.50%
When interest is compounded?	Half yearly
When interest is paid?	Yearly
Cumulative/ Non-cumulative?	Cumulative
When you can withdraw?	After the return (1 – 5 years)
What do you get on redemption?	Amount balance in the account
Premature withdrawal facility?	• 6 months – 12 months (1 year) • After 12 months (1 year)
Premature withdrawal terms?	• No Interest • 2% penalty interest
Marketability?	Good
Is it safe?	Very safe
Is it secured?	Secured

Is it convenient?	Open at any Post Offices
Can you get a loan?	Can be pledged as security for loan
Is the income taxable?	• Taxable • No TDS
Any other tax concessions?	• No Wealth Tax
Is nomination facility available?	Yes

Post Office Savings: Monthly Income Account

Who can invest?	a) An Individual (above 18 years) b) A guardian on behalf of a minor or a person of unsound mind c) A minor who has attained the age of ten years in his own name d) Two or three individuals in joint names
How much you can invest?	• Single Account – Minimum Rs.1000 and up to Rs. 3 lac • Joint Account – Minimum Rs.1000 and up to Rs.6 lac
How much do you earn?	8 %
When interest is compounded?	Monthly
When interest is paid?	Monthly
Cumulative/ Non-cumulative?	Non – Cumulative
When you can withdraw?	After 6 years
What do you get on redemption?	Amount balance in the account, plus 10% bonus on maturity if no withdrawal is made
Premature withdrawal facility?	• After 1 year • After 3 years
Premature withdrawal terms?	• No penalty – 2% of deposit deducted if withdrawn after 1 year • No penalty – 1% of deposit deducted if withdrawn after 3 years
Marketability?	Average
Is it safe?	Very safe
Is it secured?	Secured
Is it convenient?	• Open at any Post Offices • Transfer facility to any Post Office
Can you get a loan?	Not applicable

Is the income taxable?	• Taxable • No TDS
Any other tax concessions?	• No Wealth Tax • Monthly interest can be credited to the savings bank account in the same Post Office
Is nomination facility available?	Yes

1.15 Small Savings

Small Savings Schemes are basically of two types:

- ***Post Office Savings:*** Savings Deposits; Recurring Deposits; Time Deposits; & Monthly Income Account and
- ***National Savings:*** Public Provident Fund; National Savings Certificates; & Kisan Vikas Patra

We have already discussed the characteristics of Post Office Savings & Public Provident Fund in the earlier sections in this chapter; we further summarize the features of the remaining small savings products.

National Savings: Public Provident Fund (PPF)	
Who can invest?	a) An Individual (above 18 years) b) Hindu Undivided Family c) A guardian on behalf of a minor
How much you can invest?	Minimum Rs.500 and up to Rs.70,000 per annum
How much do you earn?	8%
When interest is compounded?	Yearly
When interest is paid?	On maturity
Cumulative/ Non-cumulative?	Cumulative
When you can withdraw?	After 15 years • Extension of account – Account may be extended for any block period of five years
What do you get on redemption?	Entire balance in the account
Premature withdrawal facility?	6th Year to 15th Year
Premature withdrawal terms?	Once in a year up to 50% of the balance in 4th preceding or preceding year which ever is lower
Liquidity?	Good
Is it safe?	Very safe
Is it secured?	• Secured • Even courts cannot attach the PPF balance

Is it convenient?	• Open at any Post Offices • Or specified bank
Can you get a loan?	From 3rd to 6th Year • Up to 25% of the amount available in the preceding 2nd year
Is the income taxable?	Totally tax free
Any other tax concessions?	• Rebate U/s 80c of Income Tax Act, 1961 • No Wealth Tax
Is nomination facility available?	Yes

National Savings: National Savings Certificates (NSC VIII)

Who can invest?	a) An Individual (above 18 years) b) Two individuals c) A guardian on behalf of a minor
How much you can invest?	Minimum Rs.100 and up to any amount, in denomination of Rs.100, Rs.500, Rs.1000 and Rs.10,000
How much do you earn?	8%
When interest is compounded?	Half Yearly
When interest is paid?	On maturity
Cumulative/ Non-cumulative?	Cumulative
When you can withdraw?	After 6 year
What do you get on redemption?	Amount outstanding with interest
Premature withdrawal facility?	In exceptional cases
Premature withdrawal terms?	On the death of the holder or any of the holders
Liquidity?	Good
Is it safe?	Very safe
Is it secured?	Secured
Is it convenient?	Open at any Post Offices
Can you get a loan?	Can be pledged as a security for loans
Is the income taxable?	• Taxable • No TDS
Any other tax concessions?	• Annual accrued interest is also eligible for rebate U/s 80c of Income Tax Act, 1961 • No Wealth Tax
Is nomination facility available?	Yes

National Savings: Kisan Vikas Patra (KVP)	
Who can invest?	a) An Individual (above 18 years) b) Two or three individuals in joint names c) A guardian on behalf of a minor
How much you can invest?	Minimum Rs.100 and up to any amount, in denomination of Rs.100, Rs.500, Rs.1000, Rs.10,000 and Rs.50,000
How much do you earn?	8.25% approximately
When interest is compounded?	Yearly
When interest is paid?	On maturity
Cumulative/ Non-cumulative?	Cumulative
When you can withdraw?	8 years 7 months
What do you get on redemption?	Double the amount invested
Premature withdrawal facility?	Available after 2.5 years
Premature withdrawal terms?	Early withdrawal at fixed rates anytime in case of death of holder or any of the holders
Liquidity?	Poor
Is it safe?	Very safe
Is it secured?	Secured
Is it convenient?	Open at any Post Offices
Can you get a loan?	Can be pledged as a security for loans
Is the income taxable?	• Taxable • No TDS
Any other tax concessions?	• No Wealth Tax
Is nomination facility available?	Yes

1.16 Gold

Of all the choice of investments available, can this yellow metal take pride of the place as a financial investment alternative option? Opinion on the subject of gold is divided, on several issues – are the yields from an investment in gold positive? Are its uses productive? Is the strain on the economy evident? Should gold be allowed to be brought into India freely for purposes of investment or otherwise?

Well, yields or no yields, there is hardly an Indian household that can ignore gold and keep its entire savings in financial assets alone. Every investment has an intrinsic appeal to its holder and to suggest that hundreds of tones of gold is bought every year without

regard to its economic value is to suggest that Indians don't act rationally. The fact is, they do and probably do it better than others.

Indian's faith in GOD and GOLD dates back to the Vedic times; they worshipped both. According to the World Gold Council Report, India stands today as the world's largest single market for gold consumption. In developing countries, people have often trusted gold as a better investment than bonds and stocks. Gold is an important and popular investment for many reasons:

- In many countries gold remains an integral part of social and religious customs, besides being the basic form of saving. Shakespeare called it 'the saint – seducing gold'.
- Superstition about the healing powers of gold persists. Ayurvedic medicine in India recommends gold powder and pills for many ailments.
- Gold is indestructible. It does not tarnish and is also not corroded by acid – except by a mixture of nitric and hydrochloric acids.
- Gold has aesthetic appeal. Its beauty recommends it for ornament making above all other metals.
- Gold is so malleable that one ounce of the metal can be beaten into a sheet covering nearly a hundred square feet.
- Gold is so ductile that one ounce of it can be drawn into fifty miles of thin gold wire.
- Gold is an excellent conductor of electricity; a microscopic circuit of liquid gold 'printed' on a ceramic strip saves miles of wiring in a computer.
- Gold is so highly valued that a single smuggler can carry gold worth Rs.50 lac underneath his shirt.
- Gold is so dense that all the tones of gold, which has been estimated; to be mined through history could be transported by one single modern super tanker.
- Finally, gold is scam-free. So far, there have been no Mundra – type or Mehta – type scams in gold.

Apparently, gold is the only product, which has an investment as well as ornamental value. Going beyond the narrow logic of yield and maturity values, thus, the lure of this yellow metal continues.

1.16.1 Investment Objectives

How Suitable Are Gold For An Increase In My Investment? A good investment is like an attractive bouquet – of diverse character, the key is in putting your money in all types of assets – gold included. Hoe much of your savings should you invest in any option depends on your risk appetite and wish list. While assessing the value of gold on a stand alone basis the point that needs emphasis is any investment is held on the basis of a "perceived value". When stocks of infotech companies are bought at PE multiples of 60, the question often asked is "Are these stocks worth these kind of exorbitant

prices"? If at a given time, the major investors think "yes", the prices may rise further regardless of their book values. Any financial market player would tell you that what drives the market is not so much the fundamentals as the fancy of a particular scrip at a certain time in the minds of majority of investors. Gold as an investment has some distinct advantages:

- Gold's negative correlation with other assets helps reduce the overall volatility of the portfolio. Such lower volatility leads to higher compounded rates of interest. For those who have any doubts about gold's credentials as an asset that beats the tide here are a few hard facts that should drive the point home. In the year 2002 gold prices have increased 23% while the FTSE has gone down by 27%, NASDAQ by 38%, Dow Jones by 18%, and BSE SENSEX has risen a paltry 4%.
- Gold provides the portfolio with intangible advantages such as providing hedge against financial and economic uncertainty.

Are Gold Suitable For Regular Income? No, Gold are not meant for regular income. Since value-wise they are cumulated, you get a lump sum (whether profit or loss) at the time you sell or redeem it in the market place.

To What Extent Do Gold Protect Me Against Inflation? Gold has been popular in India because historically they acted as a good hedge against inflation. In that sense this metal have been more attractive than bank deposits or small savings product. Timothy Green, a well-known gold expert, reminds us of a historical truth: "The great strength of gold throughout history has not been that you make money by holding it, but rather you do not lose. That ought to remain its best credential". A research study on gold established a remarkable consistency in the purchasing power of gold over four centuries. Its purchasing power in the mid-twentieth century was found to be nearly the same as in the middle of the seventeenth century. You can safely invest in gold. But take care to keep your jewelry in bank lockers.

Can I Borrow Against Gold? Yes, for centuries, Indian families have known how to leverage their gold ornaments and obtain cash at times of critical need. Leaving aside the moneylenders and pawnbrokers, there is a well-organized credit system in rural and urban India that has been traditionally lending against gold. Undoubtedly gold, is the most preferred of all investment assets by many banks, regardless of whether it is a Regional rural bank or a branch of the mighty State Bank of India. Loan against gold are disbursed at sub-commercial rates, at a days notice with no questions asked.

1.16.2 Risk Considerations

How Assured Can I Be Of Getting My Full Investment Back? This precious yellow metal has a store value that surpasses even sovereign investment products. Even if locked up in hidden vaults, gold never loses its glitter. Contrast this to what hassles you have to go through if your bond certificates or dividend warrants was not en-cashed in time! Gold is a form of currency that finds global acceptance and is enormously fungible.

Unlike paper currencies, gold is relatively insulated from uncertainties like economic downturn, balance of payment crises, political instability etc.

How Assured Is My Income? Since, Gold is not meant for regular income, we cannot discuss its income assurance. It all depends on the price of gold in the market place.

Are There Any Risks Unique To Investing In Gold? It may appear to you that gold could be branded as the most ideal investment since it has liquidity, safety, convenience and tax efficiency. It's known and appealing to almost all. Can we therefore conclude that the thousands of tons of gold amassed in Indian households makes the best investment? We can't because, an investment product can't boast of the other advantages it may have, ignoring its primary purpose, which is of earning a decent rate of return. On this count, gold scores poorly. The return gold yield is paltry if not negative. Globally, gold has been losing its glitter as a product of investment.

Our discussion here is all about financial markets and it's alternative investment products. Gold may have superb ornamental and hedging values. It may be prestigious to hold and fashionable to wear. It may help diversify your portfolio risks. But on a comparative scale of yield it ranks low. Investments in a product possessing a similar class of safety, convenience and tax efficiency like a bank deposit and mutual funds often offer better yields. So, beyond the customary needs of a few tolas of gold, investors are better placed keeping their savings in other choices. If you are still enamored by its glitter and can't shake it off, choose to hold the gold in bullion form; it is superior alternative to holding gold in jewelry form.

Are Gold rated for their credit quality? No, Gold is not commercially rated since they have a store value that surpasses even sovereign investment products. However, worldwide gold is valued for its intrinsic qualities – it's not merely a popular product for investment, its accepted as a standard currency anywhere. For the common man in the Indian household it is an asset of last resort at times of adversity.

However, the proportion of gold in jewelry is measured on the carat (or karat) scale. The word carat comes from the carob seed, which was originally used to balance scales in Oriental Bazaars. Pure gold is designated 24 carat, which compares with the "fineness" by which bar gold is defined.

Pure Gold / Gold Alloys		
Caratage	**Fineness**	**% Gold**
24	1000	100
22	916.7	91.67
18	750	75
14	583.3	58.3
10	416.7	41.67
9	375	37.5

The most widely used alloys for jewelry in Europe are 18 and 14 carat, although 9 carat is popular in the UK. Portugal has a unique designation of 19.2 carats. In the United States 14 carat predominates, with some 10 carat. In the Middle East, India and South East Asia, jewelry is traditionally 22 carat (sometimes even 23 carat). In China, Hong Kong and some other parts of Asia, "chuk kam" or pure gold jewelry of 990 fineness (almost 24 carat) is popular.

1.16.3 Buying, Selling, and Holding

How Do I Buy Gold? Apparently, gold is the only product, which has an investment as well as ornamental value. One can choose to buy gold in bullion as well as jewelry form, from the market.

What Is The Minimum Investment And The Range Of Investment For Gold? Investment in gold varies from individual to individual. The supremacy of gold as an investment option and its store value have suffered severe setback in the world markets, yet in India it is a different ball game. Gold might have lost out to myriad alternative assets in the global arena but nearer home when it comes to gold, emotions run high. Lets look at the magnitude of Indian obsession with gold:

- India has a very high savings rate. In spite of consumerism taking deep roots, savings continue to be at a healthy rate of 24%. And half of these savings are invested in gold and real estate and the countless other investment products ranging from bank deposits to stocks have had to settle for the balance half.
- Estimated known reserves of gold in India are 13000 tons which, when valued at a conservative Rs.4200 per 10 grams would amount to a staggering asset value of Rs.546000 crores. This amounts to approximately 80% of the entire deposit in the country's entire banking system. If you add the unknown reserves, the numbers would be colossal. Imagine such a wealth being stuck in unproductive form with no economic application whatsoever.
- Ignoring the indifference to gold in the international markets, Indian households continue to lap up gold at the first opportunity. In order to meet the insatiable appetite for gold, the Indian Government has had to resort to imports since domestic production are still low. According to the World Gold Council, roughly 40% (25% of the gold mined abroad is exported to India) of the World's gold imports are accounted by India.

What Is The Duration Of Gold? Endlessly, even if locked up in hidden vaults, gold never loses its glitter. This metal has a store value that surpasses even sovereign investment products. For a common man it is an asset of last resort at times of adversity. After the Asian Market crisis, jobless people sold gold to feed themselves. Gold thus lived up to its reputation as the asset of the last resort. Today, Southeast Asians are again buying at levels before the crisis, which is a reaffirmation of this distinction.

Can Gold Be Traded In The Secondary Market? Yes, gold is traded like any other commodity in the market. Gold is primarily a monetary asset and partly a commodity. More than

two thirds of gold's total accumulated holdings relate to 'value for investment' with central bank reserves, private players and high carat jewelry. Less than one third of gold's total accumulated holdings is as a 'commodity' for jewelry in Western markets and usage in industry.

What Is The Liquidity Of Gold? Gold market is highly liquid and gold held by central banks, other major institutions and retail jewelry keep coming back to the market.

How Is The Market Value Of Gold Determined, And How Do I Keep Track Of It? Economic forces that determine the price of gold are different from, and in many cases opposed to the forces that influence most financial assets. Due to large stocks of gold as against its demand, it is argued that the core driver of the real price of gold is stock equilibrium rather than flow equilibrium. South Africa is the world's largest gold producer followed by US and Australia. India is the world's largest gold consumer with an annual demand of 800 tons. Gold is valued in India as a savings and investment vehicle and is the second preferred investment after bank deposits. India is the world's largest consumer of gold in jewelry as investment. After RBI authorized the commercial banks to import gold for sale or loan to jewelers and exporters. At present, 13 banks are active in the import of gold. This reduced the disparity between international and domestic prices of gold from 57 percent during 1986 to 1991 to 8.5 percent in 2001. The gold hoarding tendency is well ingrained in Indian society. Domestic consumption is dictated by monsoon, harvest and marriage season. Indian jewelry off take is sensitive to price increases and even more so to volatility. In the cities gold is facing competition from the stock market and a wide range of consumer goods.

What Is The Mode of Holding Gold? When you buy gold in the open market, you can have it in bullion/bar form or in jewelry form. Whichever form you decide to hold gold, you should always take care to keep your gold holding in bank lockers.

Tax Implications

Since there is no income as such from holding gold, there is no liability for income tax. But bullion and jewelry are subject to capital gains tax and wealth tax, without any exemptions whatsoever.

While determining the value of gold ornaments for the purpose of wealth tax, making charges should be ignored, unless the ornaments are studded with precious stones. The value of gold contained in the ornaments can be reduced by 15% to 20% because the dealer invariably deducts 15% of the ruling rate of standard gold when ornaments are sold in the open market.

1.17 Mutual Funds

Mutual funds are investment companies that use the funds from investors to invest in other companies or investment alternatives. They have the advantage of professional management, diversification, convenience and special services such as cheque writing and telephone account service. It is generally easy to sell mutual fund shares/units although you run the risk of needing to sell and being forced to take the price offered. Mutual funds come in various types, allowing you to choose those funds with objectives, which most closely match your own personal investment objectives. A load mutual fund is one that has sales charge or commission attached. The fee is a percentage of the initial investment. Generally, mutual funds sold through brokers are load funds while funds sold directly to the public are no-load or low-load. As an investor, you need to decide whether you want to take the time to research prospective mutual funds yourself or pay the commission and have a broker who will do that for you. All funds have annual management fees attached.

Mutual Fund Schemes may be classified on the Basis of its Structure and its Investment Objective. Let us first discuss the classification by Structure:

1.17.1 Open - Ended Mutual Funds

An open-ended mutual fund is the one whose units can be freely sold and repurchased by the investors. Such funds are not listed on bourses since the Asset Management Companies (AMCs) provide the facility for buyback of units from unit-holders either at the NAV, or NAV-linked prices. Instant liquidity is the USP of open-ended funds: you can invest in or redeem your units at will in a matter of 2-3 days. In the event of volatile markets, open-ended funds are also suitable for investment appreciation in the short-term. This is how they work: if you expect the interest rates to fall, you park your money in an open-ended debt fund. Then, when the prices of the underlying securities rise, leading to an appreciation in your fund's NAV, you make a killing by selling it off. On the other hand, if you expect the Bombay Stock Exchange Sensitivity Index – the Sensex – to gain in the short term, you can pick up the right open-ended equity fund whose portfolio has scrips likely to gain from the rally, and sell it off once its NAV goes up.

1.17.1.1 Investment Objectives

How Suitable Are Open-Ended Funds for An Increase In My Investment? Open-ended equity funds are, indeed, suitable for an increase or appreciation in your investment. Again, your choice in an equity fund can vary, depending on your appetite for risk. Sector specific funds like Infotech/Technology or Pharma funds invest only in companies of that particular sector, and are more risky. At the same time, if the scrips of a particular sector are doing well, the returns from investing in an sector specific mutual fund may prove to be worth the risk.

Are Open-Ended Mutual Funds Suitable For Regular Income? An open-ended debt fund is best suited for income. Debt funds generally give you an option of receiving dividend on a monthly, quarterly, half-yearly or on annual basis.

To What Extent Do Open-Ended Funds Protect Me Against Inflation? Open-Ended Mutual Funds provide a fair amount of protection against inflation. But funds with an equity portfolio – growth funds – provide better protection than debt funds because equities, over the long term, provide the best means of beating inflation. Moreover, long-term capital gains are tax exempted.

Can I Borrow Against Open-Ended Mutual Funds? There are some banks that offer loans against your mutual funds. Different banks have their own criteria on which they approve the loans.

1.17.1.2 Risk Considerations

How Assured Can I Be Of Getting My Full Investment Back? You cannot be completely sure of getting your full investment back. It depends on the quality and the kind of portfolio you invest in. In fact, in an equity fund, there are no guarantees at all since the fund trades in the secondary markets, and a crash there could result in a major part of your investment coming to nothing. However, in debt funds, the credit ratings of the constituents of the portfolio are a good indicator to how safe the fund, and, thus, your principal amount are. For instance, if the portfolio consists of mostly government securities, it is the safest.

How Assured Is My Income? It again depends on the quality of the portfolio of the mutual fund you invest in. The returns from your fund are related to the market. In the simplest sense if the stock market or the debt market is performing well you can expect to receive a good return over your investment in the fund. Some funds give you a dividend or growth option. Also, income is more assured in case of debt funds as compared to equity funds.

Are There Any Risks Unique To Investing In An Open-Ended Fund? Since Open-Ended Mutual Funds invest in scrips in the secondary market, volatility in their portfolio reflects on the returns. An open-end fund may be subject to inflows at one time or sudden redemptions, which leads to a spurt or a fall in the NAV, thus affecting your returns. Also, the value of the scrips in the portfolio can fluctuate due to various market forces, thus affecting the returns of the fund.

Are Open-Ended Mutual Funds rated for their credit quality? Open-ended equity funds are not credit rated. However, the holdings of debt funds are. The portfolio list of debt funds provides the details of all the instruments held by the fund and their respective credit ratings.

1.17.1.3 Buying, Selling, and Holding

How Do I Buy An Open-Ended Fund? Units of Mutual Funds can be purchased through investment service centres of the Asset Management Company (AMC) or through the distributors. Also some AMC offer units through NSE Brokers also. The price per unit of a mutual fund is linked to the Net Asset Value (NAV) of the fund.

What Is The Minimum Investment And The Range Of Investment For Open-Ended Mutual Funds? Minimum investment in an open-ended mutual fund varies between Rs.500 and Rs.5,000. Some open-ended funds charge an entry load, i.e., a sales charge, expressed as a percentage of the NAV, is deducted from the amount invested. Also, the AMC gives you the option to invest through SIP. In Systematic Investment Plan you invest a fixed portion every fixed period to take advantage of the concept of rupee cost averaging where you buy more units when the prices are down and less units when the prices rule high. This reduces your average cost of purchase of the units.

What Is The Duration Of Open-Ended Mutual Funds? Open-ended funds, by definition, have no time duration. They can be purchased or redeemed at any time.

Tax Implications

Equity Fund	Debt Fund
Short Term Tax – 10%	Short Term Tax – 10%
Long Term Tax – NIL	Long Term Tax – 20%

Income received from Mutual Funds, according to the latest Budget proposals dividends from Mutual Funds will not be taxed in the hands of the investor. Before the new proposals, dividend from debt funds was subject to a 10 per cent dividend distribution tax plus surcharge. Dividends received from open-ended equity funds were completely tax-free.

Capital gains tax: The difference between the sale consideration and the cost of acquisition of the asset is called capital gain. If the investor sells his units and earns capital gains he is liable to pay capital gains tax. Capital gains are of two types: Short-term and Long-term capital gains.

Short Term Capital Gains; If the units are held for a period of less than one year they will be treated as short-term capital gains and the investor will be taxed depending on the income tax rate applicable to him.

Long Term Capital Gains; All units held for a period of more than 12 months will be classified as long-term capital assets. The investor has to pay long-term capital gains on the units held by him for period of more than 12 months. In this case the investor of a debt fund will

- Pay tax at a flat rate of 10 % (plus surcharge of the applicable tax rate) on the capital gains without indexation or
- Avail cost indexation on capital gains and pay 20 % tax (plus surcharge of the applicable tax rate) whichever is lower.

Indexation means that the purchase price is marked up by an inflation index resulting in lower capital gains and hence lower tax.

$$\text{Inflation Index} = \frac{\text{Inflation index for the year of transfer}}{\text{Inflation index for the year of acquisition}}$$

Can Open-Ended Mutual Funds Be Traded In The Secondary Market? No, open-ended mutual funds cannot be sold or purchased in the secondary market. They are directly repurchased by the AMC. However, they can be bought from certain brokers who deal in them.

What Is The Liquidity Of Open-Ended Mutual Funds? Open-ended funds provide instant liquidity as mutual funds redeem units daily, either at NAV, or at NAV plus a small exit load. There is a concept of Contingent Deferred Sales Charge where the exit load is charged only if the redemption takes place before a specified time period or above a specified amount. A majority of open-ended mutual funds allow switching among the various funds of the same AMC without any load. You generally get your redemption requests processed promptly, and receive the cheque in 3-4 days. However, in case of Equity Linked Savings Schemes (ELSS) there is a lock in period of three years.

How Is The Market Value Of Open-Ended Mutual Funds Determined, And How Do I Keep Track Of It? Although the units of open-ended mutual funds are not traded in the secondary market, their sale and repurchase price is a function of the NAV of the fund. If the value of the portfolio of the fund rises, so will the NAV and, hence, the market value of the open-ended mutual fund. Thus, the NAV is the most important information an investor must seek. And this information is available through newspapers where it is given daily, the AMC themselves, the Internet, and also through the periodic mails that your AMC is supposed to send you. So you can judge the market value of your investment by tracking the movement of the NAV.

What Is The Mode of Holding Open-Ended Mutual Funds? When you subscribe to an open-ended mutual fund, you receive an account statement stating your ownership of the number of units in the mutual fund. Thereafter, you get an account statement for every transaction you make. In some cases, certificates are also issued. Your AMC may give you the option of holding the certificates in the physical form, or you can receive these certificates in the dematerialized (demat) form, i.e., the certificates are not physically issued to you; instead, they are credited to your demat account.

1.17.2 Close – Ended Mutual Funds

Closed-ended mutual funds have a fixed number of units, and a fixed tenure (3, 5, 10, or 15 years), after which their units are redeemed or they are made open-ended. These funds have various objectives: generating steady income by investing in debt instruments, capital appreciation by investing in equities, or both by making an equal allocation of the corpus in debt and equity instruments.

1.17.2.1 Investment Objectives

How Suitable are Closed-Ended Funds For an Increase in My Investment? Since units of closed-ended funds rise and fall in the market like any other stock, they are well suited for an increase in your investment. However, a mutual fund is more influenced by the value of its own portfolio than any other factor. Units of an equity fund are more frequently traded than a debt fund. Also, the NAV of an equity fund rises and falls at a much faster pace. On the other hand, an equity fund provides healthy appreciation in NAV in the long term.

Are Closed-Ended Mutual Funds Suitable For Regular Income? Closed-ended debt funds, with their conservative investment approach, are best suited for income. These funds declare dividend annually or semi-annually

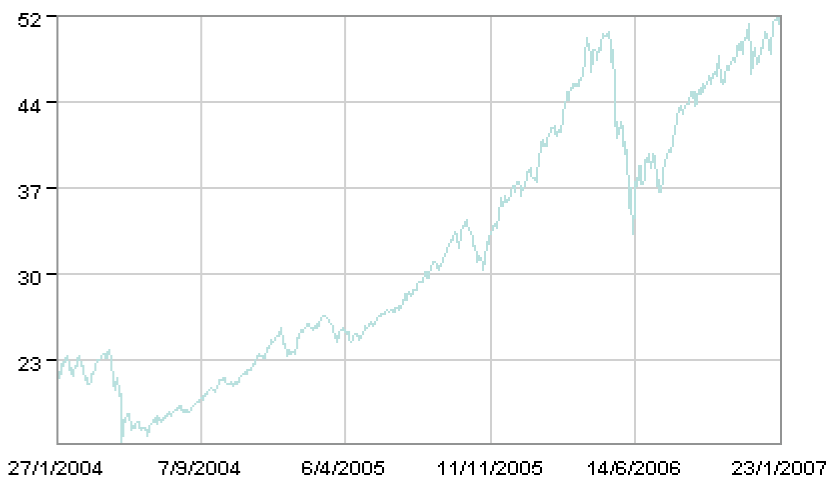
To What Extent Do Closed-Ended Funds Protect Me Against Inflation? With stocks being better than bonds in providing returns on a long-term basis, an equity closed-ended fund is better equipped to guard your investment against inflation in the long run.

Can I Borrow Against Closed-Ended Mutual Funds? No, if you require liquidity there is an option of selling these closed-ended mutual fund's units in the secondary market.

Morgan Stanley Growth Fund

AMC	Morgan Stanley Investment Management Pvt. Ltd.		
Fund	Morgan Stanley Mutual Fund	Category	Equity - Diversified
Scheme Plan	Growth	Scheme Type	Closed Ended

NAV Chart (Three Years)



1.17.2.2 Risk Considerations

How Assured Can I Be Of Getting My Full Investment Back? You cannot be completely sure of getting your full investment back. Depending on their investment objective and underlying portfolio, closed-ended funds can be very volatile or be fairly stable. Hence, your principal is not assured.

How Assured Is My Income? It depends on the portfolio of your closed-ended fund. A portfolio of debt instruments or shares of some blue-chip companies may provide regular dividends.

Are There any Risks Unique to Investing in a Closed-End Fund? The value of a closed-end mutual fund can fluctuate drastically. So, your units can trade at a hefty discount to their NAV, thus depriving you from realizing the true value of your units. This is because although closed-ended funds are, generally, listed, there is no liquidity. Investors must buy a fund if its portfolio is good; units are trading at a good discount, and the stock market is poised to rise.

Are Closed-Ended Mutual Funds rated for their credit quality? Closed-end funds are not rated. However, it is important to note that the holdings of a debt fund are generally rated, and this serves as an indicator of the safety of the portfolio.

1.17.2.3 Buying, Selling, and Holding

How Do I Buy a Closed-Ended Fund? Closed-ended funds tap the market with their initial offers. Alternatively, if the funds are listed, the units can also be picked up from the secondary market.

What is The Minimum Investment And The Range Of Investment for Closed-Ended Mutual Funds? Minimum investment in closed-ended mutual funds varies, and normally ranges between Rs.2,000 and Rs.5,000. There is no maximum limit of investment.

What is The Duration Of Closed-Ended Mutual Funds? A closed-end fund is, typically, a five-year fund. However, the duration period may vary between 3 and 15 years.

Can Closed-Ended Mutual Funds be traded in the Secondary Market? Yes, closed-ended funds are listed on the stock exchanges and, thus, can be traded in the secondary market. However, the liquidity of closed-ended funds is poor, and they trade on a hefty discount to their NAV in the secondary market.

Tax Implications

While dividend paid on closed-ended mutual funds is fully tax exempt, on redemption or sale of units in the secondary market, your realization will attract short-term capital gains tax of 10 per cent. However, you can save tax by investing in Equity-Linked Savings Scheme (ELSS) under Section 88 of the Income Tax Act, 1961, according to which 20

per cent of the amount invested in ELSS which have a lock-in period of 3 years-can be deducted from your tax liability subject to a maximum investment of Rs.10,000 per year. Also available under Section 88 are two pension plans: Unit Trust of India's Retirement Benefit Unit Plan (RBP) and Kothari Pioneer's Pension Plan.

What is The Liquidity of Closed-Ended Mutual Funds? The Indian stock markets lack depth and, thus, the closed-ended mutual funds are illiquid where they are listed and trade with a heavy discount to their NAVs. Besides listing, some mutual funds also offer repurchase options in their closed-ended funds at a NAV-linked price after a certain lock-in period.

How is the Market Value of Closed-Ended Mutual Funds Determined, and How do I Keep Track of It? The market price of a closed-ended fund is a direct function of its NAV. The higher the NAV, the higher the market price and vice-versa. However, units of a closed-ended fund always trade at a discount to their NAV. For instance, if the NAV of a fund is Rs.13, units may be trading at around Rs.11. However, units of assured return funds are an exception. Their unit price on the bourses does not chase the NAV; it chases the assured return. The NAV is the most important information an investor must seek while investing in a closed-ended mutual fund. And this information is available through various newspapers, the AMC themselves, the Internet, and also through the periodic mails which your AMC is supposed to send to you.

What is The Mode of Holding Closed-Ended Mutual Funds? When you subscribe to a closed-ended mutual fund, you receive either physical certificates, or the account number if they are held in the demat form.

1.17.3 Interval Funds

Interval funds combine the features of open-ended and close-ended schemes. They are open for sale or redemption during pre-determined intervals at NAV related prices.

Let us now classify Mutual Fund Schemes on the Basis of its Investment Objective.

1.17.4 Growth Funds

The aim of growth funds is to provide capital appreciation over the medium to long-term. Such schemes normally invest a majority of their corpus in equities. It has been proven that returns from stocks, have outperformed most other kind of investments held over the long term. Growth schemes are ideal for investors having a long-term outlook seeking growth over a period of time.

1.17.5 Income Funds

The aim of income funds is to provide regular and steady income to investors. Such schemes generally invest in fixed income securities such as bonds, corporate debentures and Government securities. Income Funds are ideal for capital stability and regular income.

1.17.6 Balanced Funds

The aim of balanced funds is to provide both growth and regular income. Such schemes periodically distribute a part of their earning and invest both in equities and fixed income securities in the proportion indicated in their offer documents. In a rising stock market, the NAV of these schemes may not normally keep pace, or fall equally when the market falls. These are ideal for investors looking for a combination of income and moderate growth.

1.17.7 Money Market Funds

The aim of money market funds is to provide easy liquidity, preservation of capital and moderate income. These schemes generally invest in safer short-term instruments such as treasury bills, certificates of deposit, commercial paper and inter-bank call money. Returns on these schemes may fluctuate depending upon the interest rates prevailing in the market. These are ideal for Corporate and individual investors as a means to park their surplus funds for short periods.

1.17.8 Load Funds

A Load Fund is one that charges a commission for entry or exit. That is, each time you buy or sell units in the fund, a commission will be payable. Typically entry and exit loads range from 1% to 2%. It could be worth paying the load, if the fund has a good performance history. The maximum load - as specified by SEBI, entry and exit put together is 7% of the NAV.

1.17.9 No-Load Funds

A No-Load Fund is one that does not charge a commission for entry or exit. That is, no commission is payable on purchase or sale of units in the fund. The advantage of a no load fund is that the entire corpus is put to work.

We can further classify Mutual Fund Schemes on the Basis of specialty.

1.17.10 Industry Specific Schemes

Industry Specific Schemes invest only in the industries specified in the offer document. The investment of these funds is limited to specific industries like InfoTech, FMCG, Pharmaceuticals etc.

1.17.11 Index Schemes

Index Funds attempt to replicate the performance of a particular index such as the BSE Sensex or the NSE Nifty.

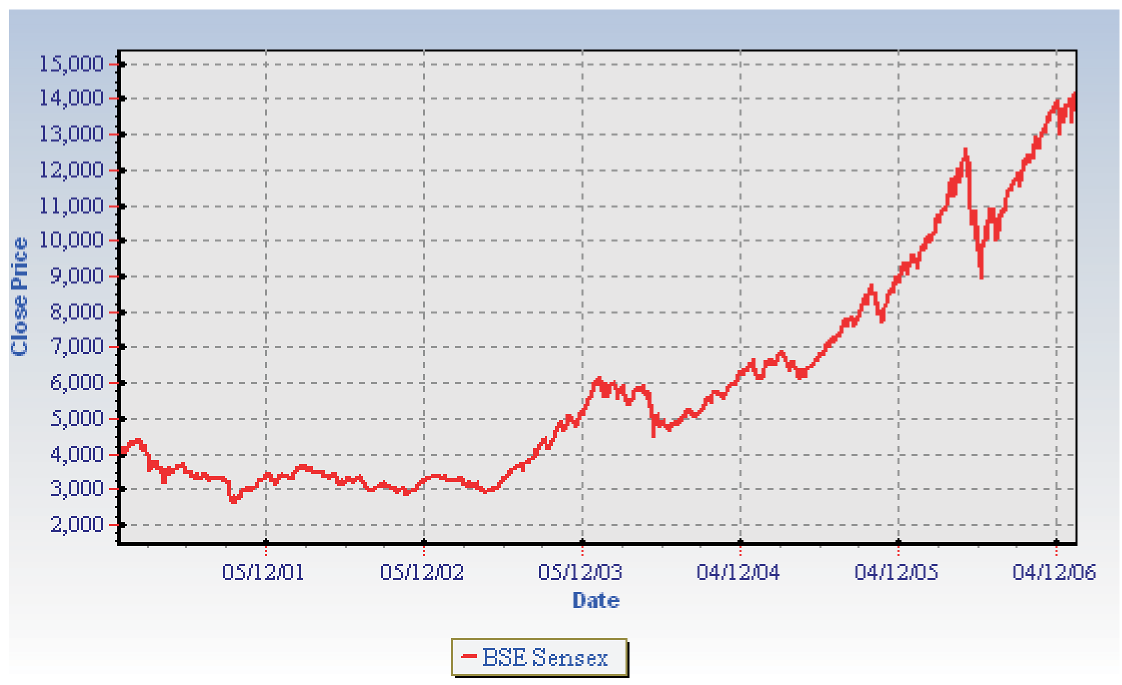
1.17.12 Sectoral Schemes

Sectoral Funds are those, which invest exclusively in a specified industry or a group of industries or various segments such as 'A' Group shares or initial public offerings.

1.18 Equity Share

Equity, also called shares or scrips, is the basic building blocks of a company. A company's ownership is determined on the basis of its shareholding. Shares are, by far, the most glamorous financial instruments for investment for the simple reason that, over the long term, they offer the highest returns. Predictably, they're also the riskiest investment option.

The BSE Sensex is the most popular index that tracks the movements of shares of 30 blue-chip companies on a weighted average basis. The rise and fall in the value of the Sensex, measured in points, broadly indicates the price-movement of the value of shares. Of late, technology has played a major role in enhancing the efficiency, safety, and transparency of the markets. The introduction of online trading has made it possible for an investor to trade in equities at the click of a mouse.



1.18.1 Investment Objectives

How Suitable Are Shares For An Increase In My Investment? Shares are meant to be long-term investments. Three golden rules for investment in equity - Diversify, Average out & most importantly stay invested. Shares do generate income from dividend as well as capital appreciation and have a strong potential to increase value of investment. But shares are risky - share prices are affected by factors beyond anyone's control and hence one needs to have an appetite for that kind of risk.

Are Shares Suitable For Regular Income? Yes, if the company earns good profits and pays dividends regularly, shares are ideal for income purposes. But not all good companies regularly pay dividends as they may chose to employ the profits for investments and growth purposes.

To What Extent Do Shares Protect Me Against Inflation? Generally, they do provide for some protection although share prices have no relation to inflation. The price may crash or rise far beyond the inflation rate.

Can I Borrow Against Shares? Yes, shares being what they are, it depends on the company whose shares you own. Keeping this in mind, you can pledge them with a bank for raising a loan. The banks have their list of approved shares that they accept as a security. Generally, shares of well-known and respectable companies are accepted as security.

1.18.2 Risk Considerations

How Assured Can I Be of Getting My Full Investment Back? Zero assurance. Forget the original amount invested. You will get your money back only according to the prices dictated by the stock market, which depend purely on the market forces of demand and supply. Also, in case the company goes in for liquidation, you will get your money back only after the company has paid off all its liabilities, i.e., if there is any money left with it by then. But then, it is the potential appreciation of investment that attracts people to shares.

How Assured Is My Income? No assurance since there is no compulsion on the company to pay dividends.

Are There Any Risks Unique To Investing In Shares? Unless it is a well-established company, there is the risk of the promoter running away with your money, or of the company closing down and declaring itself bankrupt. In that case, you will be left holding worthless pieces of certificates. However, the Securities & Exchange Board of India (SEBI) has put in place several regulations to protect the interest of the small investor. Share prices can be affected by just about anything going on in the world. Investment decisions depend on the outlook of the investor. If you believe that the price of a share is going to go up, buy it, and sell if you have the opposite view.

Are Shares rated for their credit quality? No, shares are not rated. Of course, there are plenty of brokers and other sources from where one gets "hot tips" or advice on what shares to buy and which ones to sell, but it is entirely up to you to decide how much to trust these sources.

1.18.3 Buying, Selling, and Holding

How do I Buy Shares? Shares can be purchased directly when a company issues them through an Initial Public Offering (IPO) or from the stock market through a stockbroker. The stockbroker charges a small percentage of your transaction as commission, or brokerage, to execute your orders of purchase or sale. The most popular bourses in India are the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE).

What are the Minimum Investment and the Range of Investment for Shares? The minimum investment in buying shares varies, depending on the price and quantity of the shares you want to buy. Generally, in the primary market, when a company comes out with an IPO, approximately 50-100 shares at the face value of Rs.10 each are mandatory to be bought. Also, for physical trading in the secondary market, it is advisable to buy shares in marketable lots of 10, 50, or 100, depending on their price. However, with a lot of company opting for the demat route, it is getting increasingly possible to trade even single units of shares.

What is the Duration of Shares? Shares have absolutely no timeframe. They exist as long as the company exists.

Can Shares be sold in The Secondary Market? Of course, shares can be bought and sold in the secondary market, also called the stock exchange. In fact, the sole purpose for the existence of the stock markets is trading in shares.

What is the Liquidity of Shares? Shares are the most liquid financial instruments as long as there is a buyer for your shares on the stock exchange. Most shares belonging to the A Group on the BSE are among the most liquid. However, shares of some companies may not witness any trading for many days altogether. In such a case, you will not be able to sell your shares. So, the liquidity factor varies to a large extent.

How are the Market Value of Shares Determined, and How Do I Keep Track of It? The market price of a share is determined by just about anything and everything. One investor may feel that the market price is lower than its real value, and another might think exactly the opposite! This creates imbalance in the forces of demand and supply. So, the question is, what affects the investors' perception? Performance of the company and the state of the industry and the economy are considered reliable factors. But what do you do when Infosys declares a jump in its profits and the share price plummets? Besides the returns, it is this unpredictability factor that makes investing in shares all the more exciting. Fluctuations in the share-prices make keeping track of them on a regular basis utmost important. All national and financial newspapers carry the daily quotes of all companies listed on the BSE and the NSE, and also at some of the regional stock exchanges. Moreover, with the emergence of online trading, it is now possible to get almost live stock market quotes at the click of a mouse.

What is The Mode of Holding Shares? Shares can be held in either physical or dematerialized (demat) form. In the demat form, instead of your holding physical share certificates, they are credited to your demat account with a depository participant. It is very much like holding cash at a bank. Some shares have come under the compulsory demat holding list, the list for which is available on the SEBI Websites: www.sebi.com or www.sebi.gov.nic.in. In fact, holding shares in demat form is much more convenient as it eliminates the issue of bad delivery, and also makes the delivery process quicker and easy to manage.

Tax Implications

While dividend is not taxable at the hands of the investor, capital gains are. When you sell your shares at a profit, it attracts a capital gains tax. Gains realized within one year of purchase of shares come under the short-term capital gains tax, and are included in gross taxable income. If the duration is more than one year, it is termed as long-term

capital gains tax. The rate is 10 percent for short-term capital gains and nil for long-term capital gains (long-term capital gains is exempted totally).

1.19 Debentures/Bonds

A Bond is a loan given by the buyer to the issuer of the instrument. Companies, financial institutions, or even the government can issue bonds. Over and above the scheduled interest payments as and when applicable, the holder of a bond is entitled to receive the par value of the instrument at the specified maturity date.

Bonds can be broadly classified into:
- Tax-Saving Bonds
- Regular Income Bonds

Tax-Saving Bonds offer tax exemption up to a specified amount of investment, examples are:
a. ICICI Infrastructure Bonds under Section 88 of the Income Tax Act, 1961
b. REC Bonds under Section 54EC of the Income Tax Act, 1961
c. RBI Tax Relief Bonds

Regular-Income Bonds, as the name suggests, are meant to provide a stable source of income at regular, pre-determined intervals, examples are:
a. Double Your Money Bond
b. Step-Up Interest Bond
c. Retirement Bond
d. En-cash Bond
e. Education Bonds
f. Money Multiplier Bonds/Deep Discount Bond

Similar instruments issued by companies are called debentures.

1.19.1 Investment Objectives

How Suitable Are Bonds For An Increase In My Investment? Bonds are usually not suitable for an increase in your investment. However, in the rare situation where an investor buys bonds at a lower price just before a decline in interest rates, the resultant drop in rates leads to an increase in the price of the bond, thereby facilitating an increase in your investment. This is called capital appreciation.

Are Bonds Suitable For Regular Income? Yes, bonds are suitable for regular income purposes. Depending on the type of bond, an investor may receive interest semi-annually or even monthly, as is the case with monthly income bonds. Depending on one's capacity to bear risk, one can opt for bonds issued by top ranking corporate, or that of companies with lower credit ratings. Usually, bonds of top-rated corporate provide lower yield

as compared to those issued by companies that are lower in the ratings.

To What Extent Do Bonds Protect Me Against Inflation? This depends on the rate of inflation. In times of falling inflation, the real rate of return remains high, but bonds do not offer any protection if prices are rising. This is because they offer a pre-determined rate of interest.

Credit Rating Symbols and What They Mean		
High	Investment Grades	
AAA		Highest Safety
AA		High Safety
Investment Grades		
A		Adequate Safety
BBB		Moderate Safety
Speculative Grade		
BB		Inadequate Safety
B		High Risk
C		Substantial Risk
D		In Default

Can I Borrow Against A Bond? Yes, one can borrow against bonds by pledging the same with a bank. However, borrowings depend on the credit rating of the instrument. For instance, it is easier to borrow against government bonds than against bonds issued by a company with a low credit rating.

1.19.2 Risk Considerations

How Assured Can I be of Getting My Full Investment Back? This depends on the nature of the bonds that have been purchased by the investor. Bonds may be secured or unsecured. Firstly, always check up the credit rating of the issuing company. Not only does this give you a working knowledge of the company's financial health, it also gives you an idea about the risk considerations of the instrument itself. This knowledge makes for a better understanding of the available choices, and helps you take informed decisions. In secured instruments, you have a right to the assets of the firm in case of default in payment. The principal depends on the company's credit rating and the financial strength. Selling in the secondary market has its own pitfalls. First, there is the liquidity problem, which means that it is a tough job to find a buyer. Second even if you find a buyer, the prices may be at a steep discount to its intrinsic value. Third, you are subject to market forces and, hence, market risk. If interest rates are running high, bond prices will be down and you may well end up incurring losses. On the other hand, Debentures

are always secured.

How Assured Is My Income? Interest payments depend on the health and credit rating of the issuer. Therefore, it is crucial to check the credit rating and financial health of the issuer before loosening up your purse strings. If you do invest in bonds issued by the top-rated corporate, rest assured that you will receive your payments on time.

Are There Any Risks Unique To Bonds? In certain cases, the issuer has a call option mentioned in the prospectus. This means that after a certain period, the issuer has the option of redeeming the bonds before their maturity. In that case, while you will receive your principal and the interest accrued till that date, you might lose out on the interest that would have accrued on your sum in the future had the bond not been redeemed. Inflation and interest rate fluctuation affect buy, hold, and sell decisions in case of Bonds. Always remember that if interest rates go up, bond prices go down and vice-versa.

Are Bonds rated for their credit quality? Yes, bonds are rated by specialized credit rating agencies. Credit rating agencies include CARE, CRISIL, ICRA and Fitch. An AAA rating indicates highest level of safety while D or FD indicates the least. The yield on a bond varies inversely with its credit (safety) rating. As mentioned earlier, the safer the instrument, the lower is the rate of interest offered.

1.19.3 Buying, Selling, and Holding

How Do I Buy A Bond? Investors can subscribe to primary issues of Corporate and Financial Institutions (FIs). It is common practice for FIs and corporate to raise funds for asset financing or capital expenditure through primary bond issues. Some bonds are also available in the secondary market.

What Is The Minimum Investment And The Range Of Investment for Bond? The minimum investment for bonds can either be Rs.5,000 or Rs.10,000. However, this amount varies from issue to issue. There is no prescribed upper limit to your investment - you can invest as little or as much as you desire, depending upon your risk perception. Bonds offer a fixed rate of interest.

What Is The Duration Of Bonds? The duration of a bond issue usually varies between 5 and 7 years.

Can Bonds Be Sold In The Secondary Market? If the bond is listed, it can be sold in the secondary debt market.

What Is The Liquidity Of A Bond? Selling in the debt market is an obvious option. Some issues also offer what is known as 'Put and Call option.' Under the Put option, the investor has the option to approach the issuing entity after a specified period (say, three years), and sell back the bond to the issuer. In the Call option, the company has

the right to recall its debt obligation after a particular time frame. For instance, a company issues a bond at an interest rate of 12 percent. After 2 years, it finds it can raise the same amount at 10 percent. The company can now exercise the Call option and recall its debt obligation provided it has declared so in the offer document. Similarly, an investor can exercise his Put option if interest rates have moved up and there are better options available in the market.

How Is The Market Value Of A Bond Determined? Market value of a bond depends on a host of factors such as its yield at maturity, prevailing interest rates, and rating of the issuing entity. Price of a bond will fall if interest rates rise and vice-versa. A change in the credit rating of the issuer can lead to a change in the market price.

What Is The Mode of Holding Bonds? Bonds are most commonly held in form of physical certificates. Of late, some bond issues provide the option of holding the instrument in demat form; interest payment may also be automatically credited to your bank account.

Tax Implications

There are specific tax saving bonds in the market that offer various concessions and tax-breaks. Tax-free bonds offer tax relief under Section 88 of the Income Tax Act, 1961. Interest income from bonds, up to a limit of Rs.12,000, is exempt under section 80L of the Income tax Act, plus Rs.3,000 exclusively for interest from government securities. However, if you sell bonds in the secondary market, any capital appreciation is subject to the Capital Gains Tax.

1.20 Tax-Saving Bonds

Some bonds have a special provision that allows the investor to save on tax. These are termed as Tax-Saving Bonds, and are widely used by individual investors as a tax-saving tool. Examples of such bonds are:

a. Infrastructure Bonds under Section 88 of the Income Tax Act, 1961
b. Capital Gains Bonds under Section 54EC of the Income Tax Act, 1961
c. RBI Savings Bonds (erstwhile, RBI Relief Bonds)

1.20.1 What Are RBI Savings Bonds?

RBI Savings Bonds are an instrument that are issued by the RBI, and currently has two options - one carrying an 8 percent rate of interest per annum, which is taxable and the other one carries a 6.5 percent (tax-free) interest per annum. The interest is compounded

half-yearly and there is no maximum limit for investment in these bonds. The maturity period of the 8 percent (taxable) bond is six years and that of the 6.5 percent (tax-free) bond is five years.

Tax Implications

In case of the 6.5 per cent RBI Savings Bond, the interest received is completely exempt from income tax as per the provisions of the Income Tax Act, 1961. But, In case of the 8 percent RBI Savings Bond, the interest will be taxable under the Income-Tax Act, 1961 as applicable according to the relevant tax status of the bondholder. RBI Savings Bonds are exempt from Wealth Tax. However, there is no tax benefit on the amount invested in these bonds

1.20.2 What Are Tax Saving Capital Gains Bonds?

Investments in bonds issued by the Rural Electrification Corporation (REC) are at present eligible for capital gains tax savings. Gains made out of a capital transfer need to be invested in the above bonds within six months of sale of capital assets in order for the proceeds of such sale to be exempt from capital gains tax.

REC 54EC Capital Gain Tax Exemption Bond

Nomenclature	REC Capital Gain Exemption Bonds Series - VIA
Face Value	Rs.10,000/-
Mode of Issue	Private Placement
Minimum Application	500 Bonds of Rs.10000/-
Mode of Subscription	100% on application
Deem date of Allotment	Last day of each month in which the subscription money is realized and credited to REC account.
Coupon Rate & Payment of Interest	5.25% (payable annually on 30th June) from the date of realization of cheque/draft in account of REC. 1st interest will be payable on 30th June, 2007
Tap Period	31st March, 2007 or subscription of Rs.3500 cr, whichever is earlier.
Tenor	3 years from the date of allotment
Redemption	At par, at the end of 3 years from the date of allotment.
Transfer	Non-transferable
Mobilization Fee	0.10% plus Services tax

Registrar	RCMC Shares Registry Pvt. Ltd. B-105, Sector 2, NOIDA, U.P.
Nature of Security	Legal mortgage creating pari-pasu charge over REC's immovable property to the satisfaction of the trustee.
Who can Apply	Individuals; Hindu Undivided Families; Partnership Firms; Insurance Companies; Companies and Corporate Body; Provident Funds, Superannuation Funds & Gratuity Funds; Banks; Mutual Funds; FIs; FIIs; RRBs; NRIs investing out of NRO A/c on non-repatriable basis; Co-operative banks; Other eligible categories.

Tax Implications

The main feature of the REC Bonds is that you can claim Capital Gains Tax benefits benefit under Section 54EC of the Income Tax Act, 1961. If you have realized any long-term capital gains, you can avoid paying tax on it by investing the gains in the REC bonds. Such gains have to be invested within 6 months of realizing the same, and the investment has to be locked up for a minimum period of 3-years. However, the interest that will accrue on this investment is taxable.

1.20.3 What are Tax Saving Infrastructure Bonds?

Infrastructure bonds are available through issues of ICICI Bank and IDBI, brought out in the name of ICICI Safety Bonds and IDBI Flexi bonds. These provide tax-saving benefits under Section 88 of the Income Tax Act, 1961, up to an investment of Rs.1, 00,000, subject to the bonds being held for a minimum period of three years from the date of allotment. For instance, the tax-saving bond from ICICI Bank for the month of August 2003 provides four options:

ICICI Bank Tax Savings Bond August

Options	I	II	III	IV
Tax Benefit Available	Sec 88	Sec 88	Sec 88	Sec 88
Issue Price (Rs.)	5000/-	5000/-	5000/-	5000/-
Redemption Period	3 years	3 years 4 months	5 years	5 years 4 months
Face Value	5000/-	6025/-	5000/-	6750/-
Interest Rate (%) p.a.*	5.75	Deep Discount Bond	5.75	Deep Discount
Bond				
Frequency of Interest payment	Annual	N.A	Annual	N.A
YTM (%)*#$ (with tax benefits)	12.0	11.0	9.7	9.1
Minimum Application	1 Bond	1 Bond	1 Bond	1 Bond
Maximum Application	20 Bonds	20 Bonds	20 Bonds	20 Bonds

* Subject to TDS as per the then prevailing tax laws
# Rounded off to the nearest multiple of 0.1
$ The yield has been calculated assuming that a tax rebate of 15% is available to the eligible investors and that no surcharge is payable in case of all the options.

Similarly, the IDBI Infrastructure (Tax Saving) Bond (IDBI Flexi bonds - 17 Issue, issued in January 2003) offers 4 options viz. Annual Interest (2 Options) and Cumulative (2 Options). The minimum investment was Rs.5000/- only i.e. one bond for all options. The investor has option to receive interest @ 7.25% p.a., payable annually for three years or 7.50% p.a., payable annually for five years under the Annual Interest Option. Under the Cumulative Option, the initial investment of Rs.5000/-, becomes Rs.6390/- after three years and six months or Rs.7450/- after five years six months.

Tax Implications

According to Section 88 of the Income Tax Act, 1961, subscription to the Tax Saving Bond would entitle Individuals and HUFs to a rebate from Income tax as indicated below:

Gross Total Income (Rs)*	Rebate
0 - 150,000	20%
150,001 - 500,000	15%
500,001 & Above	Nil

- Rebate under section 88 is available on the aggregate of the sums paid or deposited up to Rs.1,00,000/-, including subscription to Tax Saving Bonds of the Issuer Company.

- An individual would be entitled to an enhanced rate of rebate @ 30% if his income chargeable under the head "salaries" does not exceed Rs.1,00,000 before allowing deduction under section 16 and is not less than 90% of the gross total income subject to provisions under section 88 of the Income-tax Act.

Key Terms Introduced in the Chapter

- Money Market
- Capital Market
- Securities Market
- Primary Market
- Secondary Market
- Spot Market
- Forward Market
- Futures Market
- Options Market
- Put Option
- Call Option
- Equity Market
- Debt Market
- Derivatives Market
- Commodities Market
- Private Companies
- Public Companies
- Foreign Companies
- Company Fixed Deposits
- Bank Deposits

- Employees Provident Fund
- Public Provident Fund
- Life Insurance
- Small Savings
- Post Office Savings
- Gold
- Mutual Funds
- Open-ended Mutual Funds
- Close-ended Mutual Funds
- Interval Funds
- Growth Funds
- Income Funds
- Balance Funds
- Money Market Funds
- Load Funds
- No-load Funds
- Industry Specific Schemes
- Index Schemes
- Sectoral Schemes
- Equity Shares
- Debentures
- Bonds
- Tax-Saving Bonds
- Tax Implications

Summary with Reference to Learning Objectives

- Gold has much merit besides being an investment product. Indians through times immemorial have been amassing Gold but not necessarily for investment purposes. Gold scores high in terms of liquidity and safety, but falls behind on the benchmark of returns. Include Gold in your portfolio but not beyond the customary level.
- Open an account in any Head Post Office or at any branch of specified banks. Invest up to Rs.100,000 in a financial year. Pay this in one lump sum or in installments of not more than 12 in a year. Invest at least Rs.100 every year to keep your PPF account active. Considering the tax advantage, PPF along with tax-saving bonds give you considerable returns. Start saving early in life so that you will enjoy the fruits when you need the money the most. But investing all your money in Small Savings is not a good idea.
- Banks were the first investment houses that successfully helped the common man shift his investments from physical assets to financial assets. The inborn savings habits of Indians and the colonial past of the country helped create an organized banking system quite early in India. Later the nationalization of banks brought a paradigm shift from class banking to mass banking. Develop good banking habits and a strong relationship with your banker to leverage benefits beyond the interest returns. As a prudent asset allocation strategy, you should always invest some part of your savings in bank deposits.
- Bonds are debt instruments issued at a fixed price bearing a fixed interest income and having a fixed tenure of life. Bonds carry several risks - call risk, interest rate risk, reinvestment risk, credit quality (or default) risk, event risk. The magic of compounding adds luster to the yields from a bond. Corporate Bonds are more difficult to evaluate than Government Bonds. The secondary market of bonds is a wholesale one and more suited to institutional players than retail ones. Diversify your bond holdings amongst different issuers, varying maturities. Monitor the bond ratings.
- The large-scale scams that occurred in both stock and debt markets made investors extra cautious about safety of their investment. NBFCs suffered from systemic failures,

inadequate credit appraisals, untrained staff, high employee turnover and above all questionable business practices. With the meltdown of NBFCs, Company Deposit market had a major setback, but volumes still remain substantial and there are loyal investors who prefer Company Deposits to other options. Company Deposit is an unpretentious product; its powerful advantage is its simplicity. Company Deposit is understood even by the most naïve among the investors. Regulations concerning Company Deposits barely address the issues of investor protection. Since the Company Deposit markets are not well regulated, depositors should be more watchful before parting with their money. Irrespective of the rating and reputation of the company, never deposit all your money in a Company Deposit Scheme of a single company.

- Mutual Funds first originated in 1870 in UK and in 1964 in India. Mutual funds both abroad and in India have passed through cycles of ups and downs before becoming widely popular. Both the public and private sector have their share of laggard mutual funds. Unreasonable expectations of returns by the investors and indiscipline approach of fund managers to investing have initially taken a toll on the credibility of the industry. Later some celebrated performances, transparency, investor servicing and better product understanding have restored the credibility and acceptance of the funds. The Net Asset Values (NAVs) are the only true and ultimate determinant of mutual funds performance. The duration of investment is important because like wine, mutual fund returns taste better with the passage of time. Define your financial objectives and there is a mutual fund scheme to chose from - income funds, growth funds, liquid funds, open-ended funds, close-ended funds, sectoral funds, systematic investment plan, systematic withdrawal plan etc. In a measure of divergence of pre-tax returns with post-tax returns, mutual funds score very high because of the tax concessions they enjoy. Barring the assured income schemes, which continue to be popular, open-end funds have now become the order of the day. The real merit of investing through a mutual fund is gained more if you choose equity funds. Loads perform an economic function and are an important instrument of exit control.
- Historically, investors earned higher returns from stocks than from other products. As return and risk are correlated, they were also exposed to higher risks. To absorb this risk, you need superior analytical skills, deeper pockets to diversify across the market and essentially, the right attitude to book losses or profits. Intelligent investing in stocks is therefore, never easy. You can buy stocks either in the primary market or in the secondary market. You need to be doubly sure that you are investing in a fundamentally sound company before writing the cheque for an IPO. Buying shares in secondary market can be done only through a registered broker or a sub-broker. Stock markets are places where buyers and sellers of stock meet to trade. The NSE and BSE is the most important exchanges in India. Stock prices change according to supply and demand. There are many factors influencing prices, the most important being earnings. There is no consensus as to why stock prices move the way they do.
- Tax impacts your returns in such a way that your post-tax and pre-tax returns can be completely different. Investments in some specific financial products reduce your tax liability. The difference between long-term and short-term capital assets is very important as it affects your tax liability differently.

Questions for Practice

Short Answers

1. What is Investment?
2. Why should one invest?
3. When to start Investing?
4. What is meant by Interest?
5. What are various options available for investment?
6. What are various Short-term financial options available for investment?
7. What are various Long-term financial options available for investment?
8. What is an Equity/Share?
9. What is a Debt Instrument?
10. What is a Derivative?
11. What is a Mutual Fund?
12. What is meant by Securities?
13. What are the segments of Financial Markets?
14. What is meant by Interest payable by a debenture or a bond?
15. What are the Segments in the Debt Market in India?
16. Who are the participants in the debt market?
17. What is an Option Premium?
18. What is the Regulatory Body for Mutual Funds?
19. What is NAV?
20. What is Entry/Exit Load?

Long Answers

1. What is the function of Financial Market?
2. Which are the Financial Instruments one can invest in?
3. What are the features of debt instruments?
4. Are bonds rated for their credit quality?
5. How can one acquire securities in the debt market?
6. What are types of Derivatives?
7. What is the difference between Commodity and Financial derivatives?
8. What are the benefits of investing in Mutual Funds?
9. Are there any risks involved in investing in Mutual Funds?
10. What are the different types of Mutual Funds?
11. What are the different investment plans that Mutual Funds offer?
12. What are the rights that are available to a Mutual Fund holder in India?

13. What is a Fund Offer Document?
14. What is Active Fund Management?
15. What is Passive Fund Management?
16. Explain tax-saving bonds?
17. Explain risk considerations for investing in bonds or debentures?
18. Explain risk considerations for investing in equities?
19. Explain risk considerations for investing in mutual funds?
20. Explain risk considerations for investing in gold?
21. Explain risk considerations for investing in post office savings?
22. Explain risk considerations for investing in life insurance?
23. Explain risk considerations for investing in public provident fund?
24. Explain risk considerations for investing in bank deposits?
25. Explain risk considerations for investing in company fixed deposits?
26. Describe the comparative risk considerations of all the investment alternatives?
27. Make a comparative study of the investment objectives of all the investment alternatives?
28. Make a comparative study of the tax implications of all the investment alternatives?
29. Differentiate between different types of companies?
30. Explain the Indian Financial System?

CHAPTER 2

Primary Markets

LEARNING OBJECTIVES

After studying this chapter, you will be able:

- To understand the primary markets and their functions.
- To know the development of Indian Primary Markets.
- To overview the reforms in Indian Primary Markets.
- To understand the roles and functions of different participants in the Initial Public Offers.
- To know the various methods of issuing securities in the Primary Markets.

In chapter 1, you learnt that in order to finance their operations as well as expand, business firms must invest capital in amount that are beyond their capacity to save in any reasonable period of time. Similarly, governments must borrow large amounts of money to provide the goods and services that the people demand of them. The financial markets permit both business and government to raise the needed funds by selling securities. Simultaneously, investors with excess funds are able to invest and earn a return, enhancing their welfare.

Financial markets are absolutely vital for the proper functioning of capitalistic economies, because they serve to channel funds from savers to borrowers. In this chapter we discuss the primary markets, where in a borrower issues new securities in exchange for cash from an investor (buyer). The issuers of these securities receive cash from the buyers of these new securities, who in turn receive financial claims that previously did not exist.

The existence of well-functioning secondary markets, where investors come together to trade existing securities, assures the purchasers of primary securities that they can quickly sell their securities if the need arises. Of course, such sales may involve a loss, because there are no guarantees in the financial markets. A loss, however, may be much preferred to having no cash at all if the securities cannot be sold readily.

In summary, in India secondary markets are indispensable to the proper functioning of the primary markets. The primary markets, in turn, are indispensable to the proper functioning of the economy.

2.1 Primary Markets

Companies raise funds to finance their projects through various methods. The promoters can bring their own money of borrow from the financial institutions or mobilize capital by issuing securities. The funds maybe raised through issue of fresh shares at par or premium, preferences shares, debentures or global depository receipts. The main objectives of a capital issue are given below:

- To promote a new company
- To expand an existing company
- To diversify the production
- To meet the regular working capital requirements
- To capitalize the reserves

Stocks available for the first time are offered through primary market. The issuer may be a new company or an existing company. These issues may be of new type or the security used in the past. In the primary market the issuer can be considered as a manufacturer. The issuing houses, investment bankers and brokers act as the channel of distribution for the new issues. They take the responsibility of selling the stocks to the public.

2.1.1 The Function

The main service functions of the primary market are origination, under writing and distribution. Origination deals with the origin of the new issue. The proposal is analyzed in terms of the nature of the security, the size of the issue, timing of the issue and floatation method of the issue. Underwriting contract makes the share predictable and removes the element of uncertainty in the subscription (underwriting is given in the latter part of this chapter). Distribution refers to the sale of securities to the investors. This is carried out with the help of the lead managers and brokers to the issue.

2.1.2 The Rise and Fall of Primary Markets

Only a few years back, any investor worth his salt thought that investing in primary issues was the easiest and simplest way to make money. He scoffed at other "inferior" options like mutual funds and bank deposits because they did not double or triple his money in a few months time! Believe it or not, primary markets did that precisely - they posted near indecent returns like 300 to 400% just in two months time. When the common investor benchmarked all other investment options against these phenomenal returns, obviously they stood no chance. Returns apart, investing in primary issues appeared so simple and "risk free"! All that was required of investors to partake in the manna was to simply put as large an application as possible because the proportionate allotment rule worked to the favor of big investors (small investors were supposed to have gone to mutual funds) and pray for a large allotment. Once they received some shares on the large subscription, they just offloaded their holdings at the listed prices, which were at a hefty premium to the issue price not because of any good fundamentals of the

issuing company but simply because demand was far greater than the supply and waited for the next IPO to make another killing.

As profit booking became so simple, money flowed from all directions, some legal and some not so legal - the markets boomed and promoters, brokers and investors all made merry. "Entrepreneurs" of all sorts mushroomed to float companies with fancy projects and launched IPOs with tall promises to give high earnings and dividends. But no one bothered to check the prospectuses or the credentials of these promoters because there was enough money to be made by every one or so they thought, until the markets crashed like the proverbial nine pins.

What drove the primary markets to these dizzy heights only to collapse later? Those were the early days of liberalization and the foreign institutional investors and mutual funds had no clue as to the levels of transparency or corporate governance absent in the Indian companies. They believed in the picture specially painted for them by the wily promoters, liked it and invested heavily believing in what was right in the West would be right in the East as well. They were rudely shaken when the promised projects failed to take off because of rampant diversion of money, plain incompetence and severe change in the economic climate.

Then came, the ice winter of stock market gloom, which lasted for probably the longest period in the near history. As investors lost money and faith in the primary market, they punished all the issuers - IPO after IPO failed to get the desired response from the markets - it almost became impossible for any company to raise money from the stock markets. Genuine companies, which lined up on-going projects for funds to be raised from the market were driven to desperation and borrowed at usurious rates that broke the back of their balance sheets. The high cost of borrowing made debt servicing difficult and defaults occurred even from corporate organizations known for their high credit worthiness.

The South Asian crisis further made life very difficult for Indian entrepreneurs as their exports failed to take off and money got locked up in huge inventories. This was the perfect recipe for disaster and doomsayers were busy writing the epitaph on the Indian economic revival. As the economy teetered on the verge of collapse, the outlook has changed slowly but surely - software sector came to the rescue of the markets, a few robust companies lifted the market from their lowest depths to the present peaks of unprecedented highs.

And the Bull Run began all over again. Markets are in frenzy with institutional buying and as the index zoomed to 14500 levels, the primary market issues were back with a bang. Do you see any red herrings here?

Many analysts said investors were climbing up the same learning curve all over again. Some of the 'companies' that came out with IPOs hardly had the right credentials or performance track record to justify the public offer. But the investors starved so long

for 'good' issues were merrily lapping up all of them. Happily so far, they all made money as the scripts listed above their issue prices posted handsome returns in very short term. But don't the happenings appear so disturbingly familiar?

If you were a discerning investor, you would know speculation and serious investing are very different. As our discursion here deals with the second, we make an attempt to list the factors that an investors should consider as a checklist to guide your primary market investments.

2.1.3 Factors to be considered by the Investors

The number of stocks, which has remained inactive, increased steadily over the past few years, irrespective of the overall market levels. Price rigging, indifferent usage of funds, vanishing companies, lack of transparency, the notion that equity is a cheap source of fund and the permitted free pricing of the issuers are leading to the prevailing primary market conditions.

In this context, the investor has to be alert and careful in his investment. He has to analyze several factors. They are given below:

Factors to be considered:

Promoter's Credibility

- Promoter's past performance with reference to the companies promoted by them earlier.
- The integrity of the promoters should be found out with enquiries and from financial magazines and newspapers.
- Their knowledge and experience in the related field.

Efficiency of the Management

- The managing director's background and experience in the field.
- The composition of the Board of Directors is to be studied to find out whether it is broad based and professionals are included.

Project Details

- The credibility of the appraising institution or agency.
- The stake of the appraising agency in the forthcoming issue.

Product

- Reliability of the demand and supply projections of the product.
- Competition faced in the market and the marketing strategy.
- If the product is export oriented, the tie-up with the foreign collaborator or agency for the purchase of products.

Financial Data	● Accounting policy. ● Revaluation of the assets, if any. ● Analysis of the data related to capital, reserves, turnover, profit, dividend record and profitability ratio.
Litigation	● Pending litigations and their effect on the profitability of the company. Default in the payment of dues to the banks and financial institutions.
Risk Factors	● A careful study of the general and specific risk factors should be carried out.
Auditor's Report	● A through reading of the auditor's report is needed especially with reference to significant notes to accounts, qualifying remarks and changes in the accounting policy. In the case of letter of offer the investors have to look for the recently audited working result at the end of letter of offer.
Statutory Clearance	● Investor should find out whether all the required statutory clearance has been obtained, if not, what is the current status. The clearances used to have a bearing on the completion of the project.
Investor Service	● Promptness in replying to the enquiries of allocation of shares, refund of money, annual reports, dividends and share transfer should be assessed with the help of past record.

2.1.4 Investors Protection in the Primary Markets

To ensure healthy growth of primary market, the investing public should be protected. The term investor's protection has a wider meaning in the primary market. The principal ingredients of investor protection are:

- Provision of all the relevant information,
- Provision of accurate information and
- Transparent allotment procedures without any bias.

To provide the above-mentioned factors several steps have been taken. They are project appraisal, under writing, clearance of the issue document by the stock exchange and SEBI's scrutiny of the issue document.

2.1.4.1 Project Appraisal

This is the first step in the entire process of the project. Technical and economic feasibility

of the project is evaluated. If the project itself is not technically feasible and economically viable, whatever may be the other steps taken to protect the investors are defeated. Appraisal shows whether the project is meaningful and can be financed. The investors' protection starts right from the protection of the principal amount of investment. Based on the appraisal, the project cost is finalized. The cost should be neither understand nor overstated. The profitability of the project should be estimated and given. To ensure fair project appraisal, SEBI has made it mandatory for the project appraisal body to participate a certain amount in the forthcoming issue.

2.1.4.2 Underwriting

Once the issue is finalized the under writing procedure starts. Reputed institutions and agencies, providing credibility to the issue normally underwrite the issue. If the lead managers participate more than 5 percent of the minimum stipulated amount offered to the public, it would increase the confidence of the public regarding the pricing and sale ability of the issue.

2.1.4.3 Disclosures in the Prospectus

SEBI has issued stringent norms for the disclosure of information in the prospectus. It is the duty of the lead manager to verify the accuracy of the data provided in the prospectus. The pending litigation should be given clearly. The promoters' credibility in fulfilling the promises of the previous issues (if any) should be stated. A clear version of the risk factors should be given. Any adverse development that affects the normal functioning and the profit of the company should be highlighted in the risk factor.

2.1.4.4 Clearance by the Stock Exchange

The issue document has to be cleared by the stock exchange on which the proposed listing is offered. The stock exchanges verify the factors related with the smooth trading of the shares. Any bottleneck in this area will be eliminated since the transferability is the basic right of the shareholders. Trading of the shares helps the investor to liquidate his share at anytime. If the issues were not traded in the secondary market at a good price, they would dampen the spirit of the investor. According to a study conducted by Mr. Prithvi Haldea, between April 1992 and March 1996 out of 3,872 issues, 2,987 were traded below the offer price. As on January 14, 1997 nearly 205 shares were not traded at all and another 118 companies just proved to be fly by night operators.

2.1.4.5 Signing by Board of Directors

The Board of Directors should sign the prospectus. A copy is also filed with the office to the Registrar of the Companies. This along with the other material documents referred to in the prospectus are available for inspection by the members of the public. The minimum amount to be subscribed by the promoters and maintained for a minimum number of years also safeguards the interest of the investors.

2.1.4.6 SEBI's Role

(a) SEBI scrutinizes the various offer documents from the viewpoint of investors' protection and full disclosure. It has the power to delete the unsubstantiated claims and ask for additional information wherever needed. This makes the lead manager to prepare the offer document with due care and diligence; (b) When the disclosure of the information is complete, wide publicity has to be given in the newspapers; (c) In the allotment procedure to make sure of transparency, SEBI's nominee is appointed apart from the stock exchange nominee in the allotment committee. Inclusion of valid applications and rejection of invalid applications are checked. The representative of the SEBI see to it that un-due preference is not given to certain group of investors.

2.1.4.7 Redressal of Investors Grievances

The Department of Company Affairs has introduced computerized system of processing the complaints to handle it effectively. The companies are requested to give feed back regarding the action taken on each complaint within a stipulated time period. If the companies do not respond and are slow in the process of settlement of complaints, penal action can be taken against the companies under the provisions of the Companies Act. If the performance of the Registrar to the issue is not satisfactory in settling the complaints, SEBI can take appropriate action against such Registrar. Several Investors Associations are also functioning to help the investors complaints redressed promptly.

2.1.5 Primary Market Trends - Over Nineties

The liberalization policy adopted by the government in the early nineties resulted in a boom in the secondary market. The boom was not restricted to the secondary market alone, the primary market that till then was working under the Controller of Capital Issue also enjoyed the boom with the repealing of the Controller of Capital Issue Act. With the dawn of an era of free pricing more and more companies accessed the primary market.

There was a fall in the amount raised through primary market from March 1995 with much-publicized M.S. shoe episode. This episode put a break on the new issues activity. The collapse of the CRB capital market was another fatal blow on the primary market. The primary market was dull and insipid in 1997-98. The number of primary issues, which were 813 in 1996-97 drastically, fell down to 62 issues in 1997-98. It is interesting to note that out of every 100 public issues 39 was over subscribed in 1995-96 but in 1996-97 it was 8. At the same time 7 out of every 100 companies in 1996-97 had to return application money to investors for failing to raise minimum stipulated amount in capital issue. The reasons for this sordid state of affairs are given below.

2.1.5.1 Aggressive Pricing

This is the major cause for the sorry state of affairs in the primary market. The near complete freedom given to the issuers and the merchant bankers to fix the premium following the repeal of Capital Issue Act resulted in high premium, sharp erosion of

post listing prices and very little scope for appreciation. This made the investors to shy away from the market.

2.1.5.2 Poor Liquidity

The poor quality of the primary issues has contributed to a growing inactive list in the stock market. A glance at the profile of the in active scrips as on June 1997, provides an interesting insight of the 3617 scrips that were on the inactive list (based on trading in the first half of 1997). In those shares, 2,900 were listed prior to 1996 and 1,200 were companies listed prior to 1994. There is no way out for the investors and their fears have resulted in poor response to the primary market.

2.1.5.3 Low Returns

Non-implementation of projects, delays, changes in the scope and scale of projects to justify the cost and non-attainment of projected earnings have resulted in the fall in listing price. Though large sums were raised in 1992-96 period, capital formation with concomitant earnings has been nowhere near that reflected in the offer documents. Poor returns have drained the investors' confidence.

2.1.5.4 Low Volume

The scrips that are traded in the market, the number of transactions and the amount traded are so low that an investor wanting to sell the scrip would have difficulty in doing so. Many scrips in the current B1 group show this trend.

2.1.5.5 Economic Slow Down

The growth of the GDP has fallen from 7 per cent in 1995-96 to mere 6 per cent in 1996-97. Recession faced-by the economy had a direct impact on the secondary and tertiary sector. It had an indirect effect upon the primary market.

One should not jump to the conclusion that there are no takers in primary market. Even today there are takers for good quality issues. Several new issues by the banks - both private and public sectors have proved to be quite a success on the stock market in the recent past. Stocks like HDFC Bank, Global Trust Bank, Satyam Computers, Infosys etc. are performing well on the stock market.

The year 1999 saw renewed entrees in the primary market. The initial public offer from companies of IT sector was received well. The funds mobilized through the debt and equity route aggregated to Rs.54,352 cr, a rise of around 24 per cent compared Rs.44,115 crores in 1998.

2.1.6 Measures taken to revive the Market

- A listed company having immediate three years of dividend paying track record only can access the market.

- If a manufacturing company did not have such a track record, it could access the public issue market provided the financial institution or a scheduled commercial bank appraised its project and such appraising entities also participated in the project fund.
- The companies were required to complete the allotment of securities within 30 days of the closure of the issue.
- It would be necessary for a corporate body making a public issue to have at least five public shareholders who has been made a net capital offer to the tune of Rs.1 lakh forever.
- SEBI does not vet offer documents of companies having track record of 3 years dividend payment.
- Removal of mandatory requirement of 90 per cent subscription clause in cases of offer for sale.
- Reducing the minimum application size for subscribing to a public issue from Rs.5000 to Rs.2000.
- In case of no-underwritten public issues, promoters could bring in their own money or procure subscription from elsewhere within 60 days of the closure of the issue subject to such disclosures in the offer documents.
- SEBI lifted the provision of the lock in period for promoters' contribution in case of listed companies with 3 years track record of dividend.
- SEBI has made it mandatory to disclose un-audited results of companies for every quarter. Timely information would now be available to the public.
- SEBI has directed different stock exchange to segregate the cash flow statement of all companies that came out with IPO since 1992-93 and have asked the exchange to have a check over these companies.
- SEBI abolished the fixed par value concept and, instead companies can fix the par value of the shares. HCL Technologies IPO has a par value of Rs.4 per share, offered at Rs.580 per share.

2.1.7 Primary Market for Equity - Today

Primary market for equity, which consists of both the 'initial public offering' (IPO) market and the 'seasoned equity offering' (SEO) markets, experienced considerable activity in 2004 and 2005 (see Table below). In 2005, Rs.30,325 crore of resources were raised on this market, of which Rs.9,918 crore were made up by 55 companies which were listed for the first time (IPOs). The number of IPOs per year has risen steadily from 2002 onwards. A level of 55 IPOs in the year translates to roughly 4 IPOs every month. The mean IPO size, which was elevated in 2004, returned to Rs.180 crore, which is similar to the value prevalent in 2003.

Table: Primary Market

(Rs.crores)

Calendar Year

		2002	**2003**	**2004**	**2005**
Debt	4,549	5,284	2,383	66	
Equity	2,420	2,891	33,475	30,325	
	Of which, IPOs	1,981	1,708	12,402	9,918
	Number of IPOs	6	12	26	55
	Mean IPO size	330	142	477	180
Total	6,970	8,175	35,859	30,391	
Number	28	43	65	109	

Source: SEBI

The primary issuance of debt securities, as per SEBI, fell to a low of around Rs. 66 crore in 2005, which is one facet of the far-reaching difficulties of the debt market. Unlike equity securities, companies redeem debt securities issued at previous dates every year. Hence, a year with a low issuance of fresh debt securities is a year in which the stock of outstanding debt securities drops.

In addition to resource mobilization by the issuance of debt and equity securities, one of the most important mechanisms of financing that has been used by Indian firms is retained earnings, which are also a part of equity financing.

Primarily, issues can be classified as a Public, Rights or Preferential issues (also known as private placements). While public and rights issues involve a detailed procedure, private placements or preferential issues are relatively simpler. The classification of issues is illustrated further.

2.2 Initial Public Offer (IPO) - Parties Involved

In the sixties and seventies, the company and its personnel managed IPO. But, at present initial public offering involves a number of agencies. The rules and regulations, the changing scenario of the capital market necessitated the company to seek for the support of many agencies to make the public issue a success. As a student of financial market management, one should know the number of agencies involved and their respective role in the public issue. The promoters also should have a clear idea about the agencies to coordinate their activities effectively in the public issue. The manager to the issue, registrars to the issue, underwriters, bankers, advertising agencies, financial institutions and government /statutory agencies.

2.2.1 Managers to the Issue

Lead managers are appointed by the company to manage the initial public offering campaign. Their main duties are:

- Drafting of prospectus
- Preparing the budget of expenses related to the issue
- Suggesting the appropriate timings of the public issue
- Assisting in marketing the public issue successfully
- Advising the company in the appointment of registrars to the issue, underwriters, brokers, bankers to the issue, advertising agents etc.
- Directing the various agencies involved in the public issue.

Many agencies are performing the role of lead managers to the issue. The merchant banking division of the financial institutions, subsidiary of commercial banks, foreign banks, private sector banks and private agencies are available to act as lead mangers. Such as SBI Capital Markets Ltd., Bank of Baroda, Canara Bank, DSP Financial Consultant Ltd. ICICI Securities & Finance Company Ltd., etc. The company negotiates with prospective mangers to its issue and settles its selection and terms of appointment. Usually companies appoint lead managers with a successful background. There may be more than one manager to the issue. Some times the banks or financial institutions impose a condition while sanctioning term loan or underwriting assistance to be appointed as one of the lead managers to the issue. The fee payable to the lead managers is negotiable between the company and the lead manager. The fee agreed upon is revealed in the memorandum of the understanding filed along with the offer document.

2.2.2 Registrar to the Issue

After the appointment of the lead managers to the issue, in consultation with them, the Registrar to the issue is appointed. Quotations containing the details of the various functions they would be performing and charges for them are called for selection. Among them the most suitable one is selected. It is always ensured that the registrar to the issue has the necessary infrastructure like Computer, Internet and telephone.

The Registrars normally receive the share application from various collection centers. They recommend the basis of allotment in consultation with the Regional Stock Exchange for approval. They arrange for the dispatching of the share certificates. They hand over the details of the share allocation and other related registers to the company. Usually registrars to the issue retain the issuer records at least for a period of six months from the last date of dispatch of letters of allotment to enable the investors to approach the registrars for redressal of their complaints.

2.2.3 Underwriters

Underwriting is a contract by means of which a person gives an assurance to the issuer to the effect that the former would subscribe to the securities offered in the event

of non-subscription by the person to whom they were offered. The person who assures is called an underwriter. The underwriters do not buy and sell securities. They stand as back-up supporters and underwriting is done for a commission. Underwriting provides an insurance against the possibility of inadequate subscription. Underwriters are divided into two categories:

- Financial Institutions and Banks
- Brokers and approved investment companies.

Some of the underwriters are financial institutions, commercial banks, merchant bankers, members of the stock exchange, Export and Import Bank of India etc. The underwriters are exposed to the risk of non-subscription and for such risk exposure they are paid an underwriting commission.

Before appointing an underwriter, the financial strength of the prospective underwriter is considered because he has to undertake and agree to subscribe the non-subscribed portion of the public issue. The other aspects considered are:

- Experience in the primary market
- Past underwriting performance and default
- Outstanding underwriting commitment
- The network of investor clientele of the underwriter and
- His overall reputation.

The company after the closure of subscription list communicates in writing to the underwriter the total number of shares/debentures under subscribed, the number of shares/debentures required to be taken up by the underwriter. The underwriter would take up the agreed portion. If the underwriter fails to pay, the company is free to allot the shares to others or take up proceeding against the underwriter to claim damages for any loss suffered by the company for his denial.

2.2.4 Bankers to the Issue

Bankers to the issue have the responsibility of collecting the application money along with the application form. The bankers to the issue generally charge commission besides the brokerage, if any. Depending upon the size of the public issue more than one banker to the issue is appointed. When the size of the issue is large, 3 to 4 banks are appointed as bankers to the issue. The number of collection centers is specified by the central government. The bankers to the issue should have branches in the specified collection centers. In big or metropolitan cities more than one branch of the various bankers to the issue are designated as collecting branches. Branches are also designated in the different towns of the state where the project is being set up. If the collection centers for application money are located nearby people are likely to invest the money in the company shares.

2.2.5 Advertising Agents

Advertising plays a key role in promoting the public issue. Hence, the past track record

of the advertising agency is studied carefully. Tentative program of each advertising agency along with the estimated cost are called for. After comparing the effectiveness and cost of each program with the other, a suitable advertising agency if selected in consultation with the lead managers to the issue. The advertising agencies take the responsibility of giving publicity to the issue on the suitable media. The media may be newspapers/magazines/hoardings/press release or a combination of all.

2.2.6 The Financial Institutions

Financial institutions generally underwrite the issue and lend term loans to the companies. Hence, normally they go through the draft of prospectus, study the proposed program for public issue and approve them. IDBI, IFCI & ICICI, LIC, GIC and UTI are the some of the financial institutions that underwrite and give financial assistance. The lead manager sends copy of the draft prospectus to the financial institutions and includes their comments, if any in the revised draft.

2.2.7 Government and Statutory Agencies

The various regulatory bodies related with the public issue are:

- Securities Exchange Board of India
- Registrar of companies
- Reserve Bank of India (if the project involves foreign investment)
- Stock Exchange where the issue is going to be listed
- Industrial licensing authorities
- Pollution control authorities (clearance for the project has to be stated in the prospectus)

2.2.8 Collection Centers

Generally there should be at least 30 mandatory collection centers inclusive of the places where stock exchanges are located. If the issue is not exceeding Rs.10 Cr (excluding premium if any) the mandatory collection centers are the four metropolitan centers viz. Mumbai, Delhi, Kolkatta and Chennai and at all such centers where stock exchanges are located in the region in which the registered office of the company is situated. The regional divisions of the various stock exchanges and the places of their locations are given in the following table.

Region	Exchange	City
Northern Region	Ludhiana Stock Exchange	Ludhiana
	Delhi Stock Exchange	Delhi
	Jaipur Stock Exchange	Jaipur
	U P Stock Exchange	Kanpur
Southern Region	Hyderabad Stock Exchange	Hyderabad
	Bangalore Stock Exchange	Bangalore

	Mangalore Stock Exchange	Managlore
	Madras Stock Exchange	Chennai
	Coimbatore Stock Exchange	Coimbatore
	Cochin Stock Exchange	Cochin
Eastern Region	Calcutta Stock Exchange	Kolkatta
	Gawahati Stock Exchange	Gawahati
	Magadh Stock Exchange	Patna
	Bhubaneswar Stock Exchange	Bhubaneswar
Western Region	Bombay Stock Exchange	Mumbai
	National Stock Exchange	Mumbai
	OTCEI Stock Exchange	Mumbai
	M P Stock Exchange	Indore
	Pune Stock Exchange	Pune
	Vadodara Stock Exchange	Vadodara
	Ahmedabad Stock Exchange	Ahmedabad
	Sauashtra Kutch Stock Exchange	Rajkot

In addition to the collection branch, authorized collection agents may also be appointed. The names and addresses of such agent should be given in the offer documents. The collection agents are permitted to collect such application money in the form of cheques, draft, and stock-invests and not in the form of cash. The application money so collected should be deposited in the special share application account with the designated scheduled bank either on the same day or latest by the next working day.

The application collected by the bankers to the issue at different centers are forwarded to the Registrar after realization of the cheques, within a period of 2 weeks from the date of closure of the public issue. The applications accompanied by stock-invests are sent directly to the Registrars to the issue along with the schedules within one week from the date of closure of the issue. The investors, who reside in places other than mandatory and authorized centers, can send their application with stock-invests to the Registrar to the issue directly by registered post with acknowledgement due card.

2.3 Placement of the IPO

Initial public offers are floated through Prospectus; Bought out deals/offer for sale; Private Placement; Right Issue and Book Building.

2.3.1 Offer through Prospectus

According to Companies (Amendment) Act 1985, application forms for shares of a company should be accompanied by a Memorandum (abridged prospectus). In simple terms a prospectus document gives details regarding the company and invites offers for subscription or purchase of any shares or debentures from the public. The draft prospectus has

to be sent to the Regional Stock Exchange where the shares of the company are to be listed and also to all other stock exchanges where the shares are proposed to be listed. The stock exchange scrutinizes the draft prospectus. After scrutiny if there is any clarification needed, the stock exchange writes to the company and also suggests modification if any. The prospectus should contain details regarding the statutory provisions for the issue, program of public issue - opening, closing and earliest closing date of the issue, issue to be listed at, highlights and risk factors, capital structure, board of directions, registered office of the company, brokers to the issue, brief description of the issue, cost of the project, projected earnings and other such details. The board, lending financial institutions and the stock exchanges in which they are to be listed should approve the prospectus. Prospectus is distributed among the stock exchanges, brokers and underwriters, collecting branches of the bankers and to the lead managers.

Salient Features of the Prospectus:

General Information	• Name and address of the registered office of the company. • The name(s) of the stock exchange(s) where applications have been made for permission to deal in and for official quotations of shares/ debentures. • Opening, closing and earliest closing dates of the issue. • Name and address of lead managers. • Name and address of Trustees under Debenture Trust Deed (in case of debenture issue). • Rating for debenture/preference shares, if any, obtained from CRISIL or any other recognized rating agency.
Capital Structure of the Company	• Issued, subscribed and paid-up capital. • Size of the present issue giving separately reservation for preferential allotment to promoters and others. • Paid-up capital - (a) After the present issue and (b) After conversion of debentures (if applicable). • Details regarding the promoter's contribution.
Terms of the Present Issue	• Authority for the issue, terms of payment, procedure and time schedule for allotment, issue of certificate and rights of the instrument holders. • How to apply - availability of forms, prospectus and mode of payment. • Special tax benefits to the company and shareholders under the Income Tax Act, if any.
Particulars of the Issue	• Object of the issue • Project cost

	• Means of financing (including promoter's contribution).
Company, Management and Project	• History, main objects and present business of the company. • Subsidiary (ies) of the company, if any. • Promoters and their background. • Names, addresses and occupation of managing directors and other directors including nominee directors and whole-time directors. • Location of the project. • Plant and machinery, technological process etc. • Collaboration, any performance guarantee or assistance in marketing by the collaborators. • Infrastructure facilities for raw materials and utilities like water, electricity etc. • Schedule of implementation of the project and progress so far, giving details of land acquisition, civil works, installation of plant and machinery, trail production, consumer production etc. • The Product - (a) Nature of the products - Consumer or Industrial and the end users; (b) Approach to marketing and proposed marketing set-up; (c) Export possibilities and export obligations, if any. • Future prospects - expected capacity utilization during the first three years from the date of commencement of production and the expected year when the company would be able to earn cash profit and net profit. • Stock market data for shares, debentures of the company (high - low price for each of the last years in consideration). • Particulars regarding the other listed companies under the same management, which have made any capital issues during the last three years.
Outstanding Litigations	• Details of the outstanding litigations pertaining to matters likely to affect the operations and finances of the company including disputed tax liabilities of any nature, any other default and criminal prosecution launched against the company.
Risk Factors	• Management perception of risk factors like sensitivity to foreign exchange rate fluctuations, difficulty in

	the availability of raw materials or in marketing of products, cost, time over-run etc.
Justification of the issue premium	The justification for price is given, taking into account the following parameters: ● Performance of the company - reflected by earnings per share and book value of shares for the past five years. ● Future projections in terms of EPS and book value of shares in the next three years. ● Stock market data. ● Net asset value as per the latest audited balance sheet. If the projections are not based on the past data, appraisal made by a banker or financial institution should be specifically stated.
Financial Information	● Financial performance of the company for last five years should be given from the audited annual accounts in tabular form. ● Balance sheet date - equity capital, reserves (revaluation reserve, the year of revaluation and its monetary effect on assets) and borrowings. ● Profit and loss data - sales, gross profit, net profit, and dividend paid, if any. ● Any change in the accounting policy during the last three years and its effect on the profit and reserves of the company.
Statutory and other information	● Minimum subscription. ● Details of the fee payable to Advisers, Registrar, Managers, Trustees of the debenture holders and underwriters. ● Details regarding the previous issues, if any.

2.3.2 Bought out Deals (Offer for Sale)

Here, the promoter places his shares with an investment banker (bought out dealer or sponsor) who offers it to the public at a later date. In other works in a bought out deal, an existing company off-loads a part of the promoters' capital to a wholesaler instead of making a public issue. The wholesaler is invariably a merchant banker or some times just a company with surplus cash. In addition to the main sponsor, there could be individuals and other smaller companies participating in the syndicate. The sponsors hold on to these shares for a period and at an appropriate date they offer the same to the public. The hold on period may be as low as 70 days or more than a year.

In a bought out deal, proving is the essential element to be decided. The bought out dealer decides the price after analyzing the viability, the gestation period, promoters' background and future projections. A bough out dealer sheds the shares at a premium to the public. There are many advantages for the issuing company:

- **Firstly,** a medium or small sized company, which is already facing working capital shortage, cannot afford to have long lead-time before the funds could be mobilized from the public. Bought out deal helps the promoters to realize the funds without any loss of time.
- **Secondly,** the cost of raising funds is reduced in bought out deals. For issuing share to the public the company incurs heavy expenses, which may invariably be as high as 10 percent of the cost of the project, if not more.
- **Thirdly,** bought out deal helps the entrepreneurs who are not familiar with the capital market but have sound professional knowledge to raise funds. Sponsors of the deal are mostly concerned with the promoters' background and government policies than about the past track record or financial projections. This helps the new entrepreneur to raise adequate capital from the market.
- **Fourthly,** for a company with no track record of projects, public issues at a premium may pose problems, as SEBI guidelines come in the way. The stipulations can be avoided by a bought out deal. Companies sell the shares at a premium to the sponsors and they can off-load the shares to the public at a higher premium.
- **Fifthly,** to the investors bought out deals possess low risk since the sponsors have already held the shares for a certain period and the projects might have been completed or may be in the verge of completion, the investors need not wait for returns

The major disadvantage of the bought out deals is that the sponsors are able to create a positive image about the shares and sell them at a hefty premium. Single investment banker gives scope for manipulation of the results. Insider trading and price rigging could be carried out, which can be neither detected nor penalized.

2.3.3 Private Placement

In this method the issue is placed with a small number of financial institutions, corporate bodies and high net worth individuals. The financial intermediaries purchase the shares and sell them to investors at a later date at a suitable price. The stock is placed with issue house client with the medium of placing letter and other documents which taken together contribute a prospectus, giving the information regarding the issue. The special feature of the private placement is that the issues are negotiated between the issuing company and the purchasing intermediaries. Listed public limited company as well as closely held private limited company can access the public through the private placement method. Mostly in the private placement securities are sold to financial institutions like Unit Trust of India, mutual funds, insurance companies, and merchant banking subsidiaries of commercial banks and so on.

Through private placement equity shares, preference shares, cumulative convertible preference shares, debentures and bonds are sold. In India private placement market is witnessing the introduction of several innovative debt market instruments such as step-down/step-up debentures, liquid debentures, bonds etc. Private placement has several inherent advantages:

- **Cost Effective:** Private placement is a cost-effective method of raising funds. In a public issue underwriting, brokerage, printing, mailing and promotion account for 8 to 10 percent of the issue cost. In the case of the private placement several statutory and non-statutory expenses are avoided.
- **Time Effective:** In the public issue the time required for completing the legal formalities and other formalities takes usually six months or more. But in the private placement the requirements to be fulfilled are less and hence, the time required to place the issue is less, mostly 2 to 3 months.
- **Structure Effectiveness:** It can be structured to meet the needs of the entrepreneurs. It is flexible to suit the entrepreneurs and the financial intermediaries. To make the issue more attractive the corporate can provide discounts to the intermediaries who are buying it. This is not possible with the public issue with stringent rules and regulations. In the case of debentures the interest ceiling cannot be breached in a public issue. Here the terms of the issue can be negotiated with purchasing institutions easily since they are few in number.
- **Access Effective:** Through private placement a public limited company listed or unlisted can mobilize capital. Like-wise issue of all size can be accommodated through the private placement either small or big where as in the public issue market, the size of the issue cannot fall below a certain minimum size.

2.3.4 Rights Issue

According to Sec 81 of the Companies Act 1956, if a public company wants to increase its subscribed capital by allotment of further shares after two years from the date of its formation or one year from the date of its first allotment, which ever is earlier should offer share at first to the existing share holders in proportion to the shares held by them at the time of offer. The shareholders have no legal binding to accept the offer and they have the right to renounce the offer in favor of any person. Shares of this type are called right shares. Generally right shares are offered at an advantageous rate compared with the market rate.

According to Section 81, the company has to satisfy certain conditions to issue right shares.

- Right shares must be offered to the equity shareholders in the proportion to the capital paid on those shares.
- A notice should be issued to specify the number of shares issued.
- The time given to accept the right offer should not be less than 15 days.

- The notice also should state the right of the shareholders to renounce the offer in favor of others.
- After the expiry of the time given in the notice, the Board of Directors has the right to dispose the unsubscribe shares in such a manner, as they think most beneficial to the company.

2.3.5 Book Building

Book building is a mechanism through which the initial public offerings (IPOS) take place in the U.S. and in India it is gaining importance with every issue. Most of the recent new issue offered in the market has been through Book Building process. Similar mechanisms are used in the primary market offerings of GDRs also. In this process the price determination is based on orders placed and investors have an opportunity to place orders at different prices as practiced in international offerings.

The recommendations given by Malegam Committee paved way for the introduction of the book building process in the capital market in Oct 1995. Book building involves firm allotment of the instrument to a syndicate created by the lead managers who sell the issue at an acceptable price to the public. Originally the potion of book building process was available to companies issuing more than Rs.100 cr. The restriction on the minimum size was removed and SEBI gave impression to adopt the book building method to issue of any size. In the prospectus, the company has to specify the placement portion under book building process. The securities available to the public are separately known as net offer to the public. Nirma by offering a maximum of 100 lakh equity shares through this process was set to be the first company to adopt the mechanism.

Among the lead managers or the syndicate members of the issue or the merchant bankers as member. The issuer company as a book runner nominates this member and his name is mentioned in the draft prospectus. The book runner has to circulate the copy of the draft prospectus to be filed with SEBI among the institutional buyers who are eligible for firm allotment. The draft prospectus should indicate the price band within which the securities are being offered for subscription.

The offers are sent to the book runners. He maintains a record of names and number of securities offered and the price offered by the institutional buyer within the placement portion and the price for which the order is received to the book runners. The book runner and the issuer company finalize the price. The issue price for the placement portion and offer to the public should be the same. Underwriting agreement is entered into after the fixation of the price.

One day earlier to the opening of the issue to the public, the book runner collects the application forms along with the application money from the institutional buyers and the underwriters. The book runner and other intermediaries involved in the book building process should maintain records of the book building process. The SEBI has the right to inspect the records.

2.4 Book Building through Online IPO

Book building as discussed earlier is a process of offering securities in which bids at various prices from investors through syndicate members are collected. Based on bids, demand for the security is assessed and its price discovered. In case of normal public issue, investor knows the price in advance and the demand is known at the close of the issue. In case of public issue through book building, demand can be known at the end of everyday but price is known at the close of issue.

An issuer company proposing to issue capital through book building has two options viz., 75% book building route and 100% book building route. In case of 100% book building route is adopted, not more than 60% of net offer to public can be allocated to QIBs (Qualified Institutional Buyers), not less than 15% of the net offer to the public can be allocated to non-institutional investors applying for more than 1000 shares and not less than 25% of the net offer to public can be allocated to retail investors applying for up to 1000 shares. In case 75% of net public offer is made through book building, not more than 60% of the net offer can be allocated to QIBs and not less than 15% of the net offer can be allocated to non-institutional investors. The balance 25% of the net offer to public, offered at a price determined through book building, are available to retail individual investors who have either not participated in book building or have not received any allocation in the book built portion. Allotment to retail individual or non-institutional investors is made on the basis of proportional allotment system. In case of under subscription in any category, the un-subscribed portions are allocated to the bidder in other categories. The book built portion, 100% or 75%, as the case may be, of the net offer to public, are compulsorily underwritten by the syndicate members or book runners.

Other requirements for book building include:

- Bids remain open for at least 5 days.
- Only electronic bidding is permitted.
- Bids are submitted through syndicate members.
- Bids can be revised.
- Bidding demand is displayed at the end of every day.
- Allotments are made not later than 15 days from the closure of the issue etc.

The 100% book building has made the primary issuance process comparatively faster and cost effective and trading can commence from T+16.

The SEBI guidelines for book building provides that the company should be allowed to disclose the floor price, just prior to the opening date, instead of in the Red herring prospectus, which may be done by any means like a public advertisement in newspaper etc. Flexibility should be provided to the issuer company by permitting them to indicate a 20% price band. Issuer may be given the flexibility to revise the price band during

the bidding period and the issuers should be allowed to have a closed book building i.e. the book will not be made public. The mandatory requirement of 90% subscription should not be considered with strictness, but the prospectus should disclose the amount of minimum subscription required and sources for meeting the shortfall. The Primary Market Advisory Committee recommended the practice of 'green-shoe option' available in markets abroad which is an 'over allotment' option granted by the issuer to the underwriter in a public offering. This helps the syndicate member to over allocate the shares to the extent of option available and to consequently purchase additional shares from the issuer at the original offering price in order to cover the over-allotments.

2.4.1 On-line Initial Public Offers (IPO)

A company proposing to issue capital to public through on-line system of the stock exchange has to comply with Section 55 to 68A of the Companies Act, 1956 and SEBI Guideline, 2000. The company is required to enter into an agreement with the stock exchange(s), which have the requisite system for on-line offer of securities. The agreement should cover rights, duties, responsibilities and obligations of the company and the stock exchanges inter-se, with provision for a dispute resolution mechanism between the company and the stock exchange. The issuer company appoints a Registrar to the Issue having electronic connectivity with the stock exchanges. The issuer company can apply for listing of its securities at any exchange through which it offers its securities to public through on-line system, apart from the requirement of listing on the regional stock exchange. The stock exchange appoints brokers for the purpose of accepting applications and placing orders with the company. The lead manager would co-ordinate all the activities amongst various intermediaries connected in the system.

In addition to the above, the SEBI guidelines also provide details of the contents of the offer document and advertisement, other requirements for issues of securities, like those under Rule 19(2)(b) of SC(R) Rules, 1957. The guidelines also lay down detailed norms for issue of debt instruments, Issue of capital by designated financial institutions and preferential/bonus issues.

2.4.2 Book Building through On-line IPO System

Book building is basically a process used in IPO for efficient price discovery, wherein during the period for which the IPO is open, bids are collected from investors at various prices, which are above or equal to the floor price. The offer price is determined after the bid closing date. In it's strive to continuously improve Indian Securities Market; NSE offers its infrastructure for conducting online IPOs through book building. It helps to discover price as well as demand for a security to be issued through a process of bidding by investors. The advantages of this new system are:

- The investor parts with money only after allotment,
- It eliminates refunds except in case of direct applications and,
- It reduces the time taken for issue process.

The securities get listed within 15 days from the closure of the issue. Though the guidelines for book building were issued in 1995, it is being used for IPOs from 1999. Till June 2003, 19 issuers have used this route for making IPO issues. During 2002-03, two issuers used the on-line IPO system of NSE to issue 71.66 lakh shares.

2.5 Eligibility to issue Securities

The issues of capital to public by Indian companies are governed by the Disclosure and Investor Protection (DIP) Guidelines of SEBI, which were issued in June 1992. SEBI has been issuing clarifications to these guidelines from time to time aiming at streamlining the public issue process. In order to provide a comprehensive coverage of all DIP guidelines, SEBI issued a compendium series in January 2000, known as SEBI (DIP) Guidelines, 2000. The guidelines provide norms relating to eligibility for companies issuing securities, pricing of issues, listing requirements, disclosure norms, lock-in period for promoter's contribution, contents of offer documents, pre-and post-issue obligations, etc. The guideline applies to all public issues, offers for sale and rights issues by listed and unlisted companies.

2.5.1 Eligibility Norms

Any company issuing securities through the offer document has to satisfy the following conditions:

- A company making a public issue of securities has to file a draft prospectus with SEBI, through an eligible merchant banker, at least 21 days prior to the filing of prospectus with the Registrar of Companies (RoCs). The filing of offer document is mandatory for a listed company issuing security through a rights issue where the aggregate value of securities, including premium, if any, exceeds Rs.50 lakh. A company cannot make a public issue unless it has made an application for listing of those securities with stock exchanges(s). The company must also have entered into an agreement with the depository for dematerialization of its securities and also the company should have given an option to subscribers/ shareholders/ investors to receive the security certificates or securities in dematerialized form with the depository. A company cannot make an issue if the company has been prohibited from accessing the capital market under any order or discretion passed by SEBI.
- An unlisted company can make public issue of equity shares or any other security convertible into equity shares, on fixed price basis or on book building basis, provided:
  - (i) It has a pre-issue net worth of not less than Rs.1 crore in 3 out of the preceding 5 years and has minimum net worth in immediately preceding two years,
  - (ii) It has a track record of distributable profits in terms of section 205 of the Companies Act, 1956, for at least 3 out of immediately preceding 5 years, and
  - (iii) The issue size (offer through offer document + firm allotment + promoters contribution through the offer document) does not exceed five times its pre-issue net worth.

(iv) A listed company is eligible to make a public issue, on fixed price basis or on book building basis, if the issue size does not exceed five times its pre-issue net worth.

If the company, listed or unlisted, does not meet the above criteria, then the issue will have to be compulsorily made through book building route. In such a case, 60% of the issue size will have to be allotted to the 'Qualified Institutional Buyers' (QIBs) failing which the full subscription money shall be refunded.

- Infrastructure companies are exempt from the requirement of eligibility norms if their project has been appraised by a public financial institution or infrastructure development finance corporation or infrastructure leasing and financing services and not less than 5% of the project cost is financed by any of the institutions, jointly or severally, by way of loan and/or subscription to equity or a combination of both. Banks and rights issues of listed companies are also exempt from the eligibility norms.
- For public and rights issues of debt instruments irrespective of their maturities or conversion period, it is mandatory to obtain credit rating from a registered credit rating agency and to disclose the same in the offer document. If the credit rating is obtained from more than one credit rating agency, all the credit ratings, including the rejected ones, need to be disclosed. For a public and rights issue of debt securities with issue size greater than or equal to Rs.100 crore, credit rating from two rating agencies is mandatory. In case of issue of debentures with maturity of more than 18 months, the issuer shall create a debenture redemption reserve and appoint a debenture trustee to protect the interest of debenture holders.

Thus the quality of the issue is demonstrated by track record/appraisal by approved financial institutions/credit rating/subscription by QIBs.

2.6 Pricing of Issues

The Controller of Capital Issues Act governed issue of capital prior to May 27, 1992 1947. Under the Act, the premium was fixed as per the valuation guidelines issued. The guidelines provided for fixation of a fair price on the basis of the net asset value per share on the expanded equity base taking into account, the fresh capital and the profit earning capacity.

The repealing of the Capital Issue Control Act resulted in an era of free pricing of securities. Issuers and merchant bankers fixed the offer prices. Pricing of the public issue has to be carried out according to the guidelines issued by SEBI.

2.6.1 At Premium

Companies are permitted to price their issues at premium in the case of the following:

- First issue of new companies set up by existing companies with the track record.
- First issue of existing private/closely held or other existing unlisted companies with three-year track record of consistent profitability.

- First public issue by exiting private/closely held or other existing unlisted companies without three-year track record but promoted by existing companies with a five-year track record of consistent profitability.
- Existing private/closely held or other existing unlisted company with three-year track record of consistent profitability, seeking disinvestments by offers to public without issuing fresh capital (disinvestments).
- Public issue by existing listed companies with the last three years of dividend paying track record.

2.6.2 At Par Value

In certain cases companies are not permitted to fix their issue prices at premium. The prices of the share should be at par. They are for:

- First public issue by existing private, closely held or other existing unlisted companies without three-year track record of consistent profitability and
- Existing private/closely held and other unlisted companies without three-year track record of consistent profitability seeking disinvestments offer to public without issuing fresh capital (disinvestments).

2.7 Fixed versus Book Building Issues

The main difference between offer of shares through book building and offer of shares through normal public issue can be identified on the following parameters:

- Price at which securities will be allotted is not known in case of offer of shares through Book Building while in case of offer of shares through normal public issue, price is known in advance to investor. Under Book Building, investors bid for shares at the floor price or above and after the closure of the book building process the price is determined for allotment of shares.
- In case of Book Building, the demand can be known everyday as the book is being built. But in case of the public issue the demand is known at the close of the issue.

2.8 American Depository Receipts (ADRs) & Global Depository Receipts (GDRs)

Indian companies are permitted to raise foreign currency resources through two main sources:

- Issue of Foreign Currency Convertible Bonds (FCCBs)
- Issue of Ordinary equity shares through depository receipts, namely, Global Depository Receipts/ American Depository Receipts to foreign investor's i.e. institutional investors or investors residing abroad.

A Depository Receipt (DR) is any negotiable instrument in the form of a certificate denominated in US dollars. The certificate is issued by an overseas depository bank against certain underlying stocks/shares. The shares are deposited by the issuing company with the

depository bank. The depository bank in turn tenders DRs to the investors. A DR represents a particular bunch of shares on which the receipt holder has the right to receive dividend, other payments and benefits which company announces from time to time for the shareholders. However, it is non-voting equity holding. DRs facilitate cross border trading and settlement, minimize transaction cost and broaden the potential base, especially among institutional investors. More and more Indian companies are raising money through ADRs and GDRs these days.

2.8.1 What are ADRs or GDRs?

American Depositary Receipts (ADRs) are securities offered by non-US companies who want to list on any of the US exchange. Each ADR represents a certain number of a company's regular shares. These are deposited in a custodial account in the US. ADRs allow US investors to buy shares of these companies without the costs of investing directly in a foreign stock exchange. ADRs are issued by an approved New York bank or trust company against the deposit of the original shares. When transactions are made, the ADRs change hands, not the certificates. This eliminates the actual transfer of stock certificates between the US and foreign countries.

Global Depositary Receipts (GDRs) are negotiable certificate held in the bank of one country representing a specific number of shares of a stock traded on the exchange of another country. This is a financial instrument used by the companies to raise capital in either dollars or Euros. GDRs are also called European Depositary Receipt. These are mainly traded in European countries and particularly in London.

However, ADRs and GDRs make it easier for individuals to invest in foreign companies, due to the widespread availability of price information, lower transaction costs, and timely dividend distributions.

2.8.2 Why do Companies go for ADRs or GDRs?

Indian companies need capital from time to time to expand their business. If any foreign investor wants to invest in any Indian company, they follow two main strategies. Either the foreign investors can buy the shares in Indian equity markets or the Indian firms can list their shares abroad in order to make these shares available to foreigners.

But the foreign investors often find it very difficult to invest in India due to poor market design of the equity market. Here, they have to pay hefty transaction costs. This is an obvious motivation for Indian firms to bypass the incompetent Indian equity market mechanisms and go for the well-functioning overseas equity markets. When they issue shares in forms of ADRs or GDRs, their shares commanded a higher price over their prices on the Indian bourses.

Indian Companies Listed Abroad?

Infosys Technologies was the first Indian company to be listed on NASDAQ in 1999.

However, the first Indian firm to issue sponsored GDR or ADR was Reliance industries Limited. Beside, these two companies there are several other Indian firms are also listed in the overseas bourses. These are Satyam Computer, Wipro, MTNL, VSNL, State Bank of India, Tata Motors, Dr Reddy's Lab, Ranbaxy, Larsen & Toubro, ITC, ICICI Bank, Hindalco, HDFC Bank and Bajaj Auto.

Prices of Indian ADRs & GDRs?

The ADR and GDR prices of the Indian companies are much higher compared to the prices on the Indian bourses. While, Infosys trades at $72.14 at NASDAQ, it quotes at Rs 2,245 on the BSE. Satyam at $24.25, Wipro at $21.50, Tata Motors at $10.20, MTNL at $6.34, Dr Reddy's Lab at $16.27, HDFC Bank at $41.94, Bajaj Auto at $28.14, RIL at $24.83 and ITC at $35.30 were all quoting at a higher price than their Indian peers.

Another problem faced by the foreign investors is restrictions on equity ownership by foreigners. Only foreign institutional investors can buy shares in India whereas in case of ADRs or GDRs, anyone can buy this. FIIs face restrictions of ceilings or stakes in Indian companies. In contrast, there is no such restriction on GDRs or ADRs, and hence GDRs or ADRs generally enjoy a premium.

2.8.3 How to trade in ADRs?

ADRs can be traded either by trading existing ADRs or purchasing the shares in the issuer's home market and having new ADRs created, based upon availability and market conditions.

When trading in existing ADRs, the trade is executed on the secondary market on the New York Stock Exchange (NYSE) through Depository Trust Company (DTC) without involvement from foreign brokers or custodians. The process of buying new, issued ADRs goes through US brokers, Helsinki Exchanges and DTC as well as Deutsche Bank.

2.8.4 What are the norms for Indian ADRs and GDRs?

There are no ceilings on investment in ADRs or GDRs. An applicant company seeking the government's approval in this regard should have a consistent good track record for a minimum period of 3 years. This condition can be relaxed for infrastructure projects such as power generation, telecomm, petroleum exploration and refining, ports, airports and roads.

There is no restriction on the number of GDRs or ADRs to be floated by a company or a group of companies in a financial year. The government has also relaxed the conversion and re-conversion (i.e. two-way conversion or fungibility) of shares of Indian companies into depository receipts listed in foreign bourses.
The companies have been allowed to invest 100 per cent of the proceeds of ADR or GDR issues for acquisitions of foreign companies and direct investments in joint ventures.

2.9 Allotment of Shares

2.9.1 Prohibition of allotment unless minimum subscription received

- A company's offer to the public for subscription of equity shares cannot be allotted unless the minimum amount is subscribed for. This minimum amount is decided by the Board of Directors, which according to them must be raised by the issue of share capital in order to provide for the specific objective as mentioned in the prospectus and which has been subscribed by the public for.
- The amount payable on application on each share cannot be less than five per cent of the nominal amount of the share.
- All money received from applicants for issue of shares is kept deposited in a Schedule Bank until the certificate to commence business is obtained by the company. Where such certificate has already been obtained, the deposits are kept until the company has received the entire amount payable on applications for shares up to minimum subscription.
- On the expiry of 120 days after the issue of the prospectus, if the above conditions are not complied with, all money received from applicants has to be repaid without interest. Incase money is not repaid within 130 days after the issue of the prospectus, directors of the company is held responsible to repay that money with interest at the rate of 6% per annum from the expiry of the 130th day.
- The above conditions do not apply to any allotment of shares made subsequent to the first allotment of share by the company to the public.

2.9.2 Prohibition of allotment in certain cases unless statement in lieu of prospectus delivered to registrar

- If a company having a share capital did not issue a prospectus or has issued a prospectus but has not proceeded to allot any of the shares offered to the public for subscription, cannot allot any of its shares or debentures unless at least 3 days before the first allotment of either shares or debentures it has delivered a statement in lieu of prospectus signed by all director in writing to the Registrar for registration.
- This prohibition of allotment does not apply to a private company.
- If this statement in lieu of prospectus delivered to the Registrar includes any untrue statement, then the person authorizing the delivery is held responsible and is liable for punishment. This is a punishable offence with imprisonment for a term up to 2 years or with fine which may be up to the extend of 50000 or with both.

2.9.3 Effect of irregular allotment

- An allotment made by a company to an applicant shall be void able at the instance of the applicant - (a) within two months after the holding of the statutory meeting of the company, and not later or; (b) in case where the company is not required to hold a statutory meeting or where the allotment is made after the holding of the statutory meeting, within two months after the date of the allotment and not later.

- If any director of a company is responsible of willful contravention of any of the provisions of allotment, he is liable to compensate the company and the allottees for any loss incurred thereby. Provided any such proceedings to recover losses is not commenced after the expiration of two years from the date of the allotment.

2.9.4 Applications for, and allotment of, shares and debentures

- The applications for allotment of share or debentures of a company, done through a prospectus issue, is not done until the beginning of the 5th day after the prospectus is first issued or any time later as specified in the prospectus.
- The validity of an allotment is not affected by any contravention of the above point, but in the event of any such contravention, every officer of the company is held responsible and subject to a punishment of fine up to the extend of Rs.50000.
- An application for shares or debentures of a company made through issue of a prospectus is generally not revocable until after the expiration of the 5th day after the opening of the subscription.

2.9.5 Allotment of shares and debentures to be dealt in on stock exchange

- Every company intending to offer shares or debentures to the public for subscription by the issue of a prospectus shall, before making such issue is required to make an application to one or more recognized stock exchanges for seeking permission to list the shares and debentures such issued on the stock exchanges. Where an appeal against the decision of any recognized stock exchange refusing permission for the shares or debentures to be listed on the stock exchange has been preferred, such allotment shall not be void until the dismissal of the appeal.
- Where the permission has not been applied, the company will repay all money received from applicants without interest, and if, any such money is not repaid within 8 days after the company becomes liable to repay it, the directors are held responsible. From the expiry of 8th day, they will be jointly liable to repay that money with interest, not less than 4% and not more than 15%, depending upon the length of the period of delay in making the repayment of such money.
- All money received as aforesaid shall be kept in a separate bank account maintained with a Scheduled Bank, and if default is made in complying with the conditions aforesaid, then every officer of the company is held responsible and this offense is punishable with fine which may extend to 50000 rupees. Money standing to the credit of the separate bank account, shall not be utilized for any purpose other than the following purposes, namely - (a) adjustment against allotment of shares, where the shares have been permitted to be listed on the stock exchanges as specified in the prospectus; or (b) repayment of money received from applicants, where shares have not been permitted to be listed on the stock exchanges as specified in the prospectus.
- No prospectus shall state that application has been made for permission for the shares or debentures offered thereby to be listed on any stock exchange, unless it is recognized stock exchange.

2.9.6 Return as to allotments

Whenever a company having a share capital makes any allotment of its shares, the company shall, within 30 days thereafter:

- File with the Registrar a return of the allotments, stating the number and nominal amount of the shares comprised in the allotment, the names, addresses and occupations of the allottees, and the amount, if any, paid or due and payable on each shares.
- In the case of shares (not being bonus shares) allotted as fully or partly paid-up, is produced for inspection and examination of the Registrar in the form of a contract constituting the title of the allottee to the allotment together with any contract of sale or services or other consideration in respect of which that allotment was made. This contract is duly stamped and filed with the Registrar.
- In the case of bonus shares a return stating the number and nominal amount of such shares comprised in the allotment and the names, addresses and occupations of the allottees and a copy of the resolution authorizing the issue of such shares is filed with the Registrar.
- In the case of issue of shares at a discount, a copy of the resolution passed by the company authorizing such issue together with a copy of the order of the Tribunal sanctioning the issue and where the maximum rate of discount exceeds 10%, a copy of the order of the Central Government permitting the issue at the higher percentage is filed with the Registrar.
- If default is made in complying with the conditions aforesaid, every officer of the company is held responsible and this offense is punishable with fine, which may extend to 5000 rupees for every day during which the default continues.
- No aforesaid conditions will apply to the issue and allotment of shares by a company, which under the provisions of its articles were forfeited for non-payment of calls.

2.10 Basis of Allotment

According to SEBI regulation, the allocation of shares is done under proportionate allotment method. The allotment for each category is inversely proportional to the over subscription ratio. The applications will be categorized according to the number of shares applied for. The allocation is done by proportionate basis. If the allocation to a applicant works out to be more than hundred but is not a multiple of hundred, the number excess of hundred and fifty would be rounded off to the higher multiple of 100 i.e. 200. If it were 148 then, it would be rounded off to 100. If the shares allocated on a proportionate basis to any category are more than the shares allotted to applications in that category, the balance share allotment shall be first adjusted against any other category where the allotment of shares are not sufficient for proportionate allotment in that category. The balance shares, if any remaining after such adjustment will be added to the category comprising of applicants applying for minimum number of shares.

2.10.1 Allotment Method

Total number of applicants in the category of 100s	=	2000
Total number of shares applied for	=	2,00,000
Number of times over subscribed	=	5
Proportionate allotment to that category (2,00,000 × 1/5)	=	40,000

Since the allotment has to be made in marketable lots, 100 shares will be allotted to 400 people.

2.10.2 Illustration

Basis of Allocation - Reliance Petroleum Limited (Incorporated under the Companies Act, 1956 on October 24, 2005)

2.10.2.1 Issue Detail

Issue of 135,00,00,000 equity shares of Rs.10 each for cash at a price of Rs.60 per equity share (Including a share premium of Rs.50 per equity share) aggregating to Rs.81,000 million including promoter contribution of 90,00,00,000 equity shares of Rs.10 each for cash at a price of Rs.60 per share ("Promoter Contribution") and the net issue to public of 45,00,00,000 equity shares of Rs.10 each ("Net Issue"). The net issue will constitute 10% of the fully diluted post issue paid up capital of Reliance Petroleum Limited ("Company" or "Issuer"). The face value per equity share is Rs.10. The issue price per equity share is Rs.60 and it is 6 times of the face value.

The issue was made through the 100% Book Building Process where at least 60% of the Net Issue was to be allocated on proportionate basis to Qualified Institutional Buyers ("QIBs") (including 5% of the QIB portion that was to specifically be allotted to mutual funds on proportionate basis). Further, not less than 10% of the Net Issue was available for allocation on proportionate basis to Non-Institutional Bidders and not less than 30% of the Net Issue was available for allocation on proportionate basis to Retail Bidders, subject to valid bids being received at or above the Issue Price.

The Issue received 21,08,279 applications for 23,04,97,33,824 equity shares resulting in 51.22 times subscription. The details of the applications received in the Issue from Qualified Institutional Buyers, Non-Institutional and Retail Individual Investors categories are as under (Before technical rejections):

Category	No. of Applications	No. of Shares	Subscription
Retail Bidders	2094659	2011656932	14.90
Non Institutional Bidders	13209	2622131892	58.27
Qualified Institutional Bidders	411	18415945000	68.202.

10.2.2 Final Demand

The final demand at different bid prices is as under:

Bid Price	No. of Shares	% to Total	Cumulative Total	Cumulative % to Total
57	3493900	0.02	23087276300	100.00
58	1031800	0.00	23083782400	99.98
59	107000	0.00	23082750600	99.98
60	34334100	0.15	23082643600	99.98
61	2020200	0.01	23048309500	99.83
62 & Cut Off	23046289300	99.82	23046289300	99.82
	23087276300	**100.00**		

The Basis of Allocation was finalized in consultation with Bombay Stock Exchange Limited on May 3, 2006. The Committee of Directors of the Company at its Meeting held at Hyderabad on May 3, 2006 has approved the following Basis of Allocation of shares of the Issue and has allotted the shares to the successful applicants.

2.10.2.3 Allocation to Retail Investors

The category was subscribed 13.80 times. The total number of shares allotted in this category is 13,50,00,000 equity shares and the number of allottees is 1247592. The category-wise details of the Basis of Allocation (Sample) are as under:

Category	No. of	% to Aplications	Total No. of Total	% to Shares Applied	No. of Share Total	Ratio Allocated	Total No. of Shares Allocated
100	74871	3.86	7487100	0.40	100	5:69	542500
200	100887	5.20	20177400	1.08	100	10:69	1462100
300	67209	3.47	20162700	1.08	100	15:69	1461100
400	64367	3.32	25746800	1.38	100	20:69	1865700
500	189368	9.76	94684000	5.08	100	25:69	6861200
600	45310	2.34	27186000	1.46	100	3:7	1941900
700	34686	1.79	24280200	1.30	100	1:2	1734300
800	562408	29.00	449926400	24.14	100	40:69	32603400
900	5022	0.26	4519800	0.24	100	5:8	313900
1000	115074	5.93	115074000	6.17	100	55:76	8327700
1100	8673	0.45	9540300	0.51	100	11:14	681500
1200	10712	0.55	12854400	0.69	100	6:7	918200
1300	3446	0.18	4479800	0.24	100	14:15	321600
1400	3440	0.18	4816000	0.26	101	FIRM	347440
		ADDITIONAL			100	9:16	1944
1500	32200	1.66	48300000	2.59	109	FIRM	3509800
1600	621601	32.05	994561600	53.36	116	FIRM	72105716

2.10.2.4 Allocation to Non Institutional Investors

The category was subscribed 57.59 times. The total number of shares allotted in this category is 450,00,000 equity shares and the number of allottees is 7328. The category-wise details of the Basis of Allocation (Sample) are as under:

Category Shares Allocated	No. of	% to Aplications	Total No. of Total	% to Shares Applied	No. of Share Total	Ratio Allocated	Total No. of
1700	299	3.41	508300	0.02	100	3:10	9000
1700	299	3.41	508300	0.02	100	3:10	9000
1800	71	0.81	127800	0.00	100	1:3	2400
10000	416	4.75	4160000	0.16	174	FIRM	72384
50000	137	1.56	6850000	0.26	868	FIRM	118916
100000	177	2.02	17700000	0.68	1736	FIRM	307272
120000	7	0.08	840000	0.03	2083	FIRM	14581
150000	48	0.55	7200000	0.28	2604	FIRM	124992
200000	50	0.57	10000000	0.39	3472	FIRM	173600
500000	48	0.55	24000000	0.93	8681	FIRM	416688
1000000	15	0.17	15000000	0.58	17362	FIRM	260430
1500000	6	0.07	9000000	0.35	26044	FIRM	156264
2000000	6	0.07	12000000	0.46	34725	FIRM	208350
4000000	6	0.07	24000000	0.93	69450	FIRM	416700
5000000	1	0.01	5000000	0.19	86812	FIRM	86812
11300000	1	0.01	11300000	0.44	196195	FIRM	196195
32258000	2	0.02	64516000	2.49	560077	FIRM	1120154
93540000	1	0.01	93540000	3.61	1624080	FIRM	1624080
111290000	1	0.01	111290000	4.29	1932244	FIRM	1932244

2.10.2.5 Allocation to QIBs

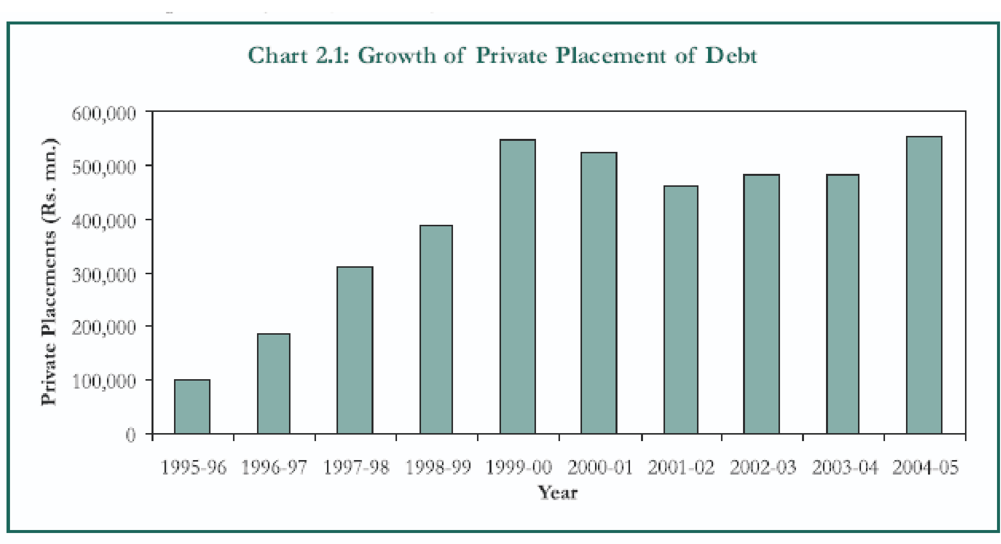
The category was subscribed 68.20 times. Allocations to QIBs have been done on a proportionate basis. As per the SEBI guidelines, Mutual Funds were initially allotted 5% of the quantum of shares available (135,00,000) on proportionate basis and other QIBs and unsatisfied demands of Mutual Funds were allotted the remaining available shares (2565,00,000) on proportionate basis. The sectoral cap and other limits applicable to the holding of shares in company have been taken into account while allotting shares. Mutual Funds were allotted 11.51% for QIB segment and other QIB applicants were allotted 88.49% of the shares for QIB segment. The total number of allottees is 411.

Category	No. of Shares
FIs/Banks	15861666
MFs	31072909
FIIs	216366000
VC	17714
Insurance Companies	6681711
Total	270000000

2.11 Private Placement

The private placement involves issue of securities, debt or equity, to selected subscribers, such as banks, FIs, MFs and high net worth individuals. It is arranged through a merchant/ investment banker, who acts as an agent of the issuer and brings together the issuer and the investor(s). Since these securities are allotted to a few sophisticated and experienced investors, the stringent public disclosure regulations and registration requirements are relaxed. The Companies Act, 1956, states that an offer of securities to more than 50 persons is deemed to be public issue.

In sharp contrast to a shrinking public issues market for corporate securities, the last few years have witnessed huge resource mobilization through private placement. According to Prime Database estimates, a total of 114 issuers (institutional and corporate) raised Rs.5,51,838 million through 319 privately placed issues in 2004-05. 176 issues out of 319 were made by the government sector units, which together mobilized 82% of the total. The amount raised through the private placement of debt issues have been on an increasing trend over the past few years (Chart 2.1).



Mostly, debt securities were privately placed. Though, there were some instances of private placements of equity shares, there is no comprehensive data coverage of this. The two sources of information regarding private placement market in India are Prime Database and RBI. The former data set, however, pertains exclusively to debt issues. RBI data, which is compiled from information gathered from arrangers, covers equity private placements also. RBI estimates the share of equity in total private placements as rather insignificant. Some idea, however, can be derived from the equity shares issued by NSE-listed companies on private placement basis. A total of 96 companies privately placed equities mobilizing around Rs.58,982 million during 2004-05.

Table: Issuer-wise Distribution of Private Placement of Debt

Issuer	Issue Amount (Rs. mn.)		% of Issue Amount	
	2003-04	2004-05	2003-04	2004-05
All India Financial Institutions/Banks	253,088	326,522	52.26	59.17
State Financial Institutions	42,084	23,808	8.69	4.31
Public Sector Undertakings	58,809	64,412	12.14	11.67
State Level Undertakings	65,642	35,186	13.55	6.38
Private Sector	64,656	101,910	13.35	18.47
Total	484,279	551,838	100.00	100.00

Source: Prime Database

Of the 319 debt private placements, 176 (55%) were from the government/banking sector that together mobilized 82% of the total amount mobilized. The All India Financial Institutions (AIFIs) & Banks continued to top the list with 59% (Rs.326,522 million), followed by the Private Sector Undertakings with 18% share (Rs.101,910 million). The top '10' issuers accounted for 53.9% of total private placement during 2004-05.

Sectoral distribution shows that the banking and financial services continued to dominate the private placement market, raising 64% in 2004-05 followed by power sector, which accounted for 16% during the year.

Table: Sectoral Distribution of Resources Mobilized by Private Placement

(In per cent)

	2003-04	2004-05
Financial & Banking	76	64
Power	17	16
Water Resources	5	2
Telecommunications	1	2
Others	1	10
Total	**100**	**100**

Source: Prime Database

The maturity profile of issues in the private placement market ranged between 12 months to 204 months during 2004-05. The largest number of placements was for 36 months (87 placements) and 60 months (57 placements). A total of 78 offers had a put option, while 83 offers had a call option.

Table: Resources Raised by Corporate Sector

(Amount in Rs. mn.)

Year	Public Equity Issues	Debit Issues Public Issues	Private Placements*	Total (3-4)	Total Resource Mobilization (2+5)	Share (%) of private Placement in Total (4/5*100)	Resource Mobilization (4/6*100)	Share (%) of Debt in Resource Mobilization (5/6*100)
1	2	3	4	5	6	7	8	9
1995-96	88,820	29,400	100,350	129,750	218,570	77.34	45.91	59.36
1996-97	46,710	69,770	183,910	253,680	300,390	72.50	61.22	84.45
1997-98	11,320	19,290	309,830	329,120	340,450	94.14	91.01	96.67
1998-99	5,040	74,070	387,480	461,550	466,580	83.95	83.05	98.92
1999-00	29,750	46,980	547,010	593,990	623,740	92.09	87.70	95.23
2000-01	24,790	41,390	524,335	565,725	590,520	92.68	88.79	95.80
2001-02	10,820	53,410	462,200	515,610	526,430	89.64	87.80	97.94
2002-03	10,390	46,930	484,236	531,166	541,556	91.16	89.42	98.08
2003-04	178,210	43,240	484,279	527,519	705,729	91.80	68.62	74.75
2004-05	214,320	40,950	551,838	592,788	807,108	93.09	68.37	73.45

*Data from 2000-01 onwards include only issues with a tenor and put/call option of 1 year or more, while data for earlier years include all privately placed debt issues irrespective of tenor.

Source: Prime Database

Unlike public issues of bonds, it is not mandatory for corporate issuing bonds in the private placement market to obtain and disclose credit rating from an approved credit rating agency. Rating is, however, required for listing. Of the 319 debt private placement deals during 2004-05, 297 issues (93%) went for rating and 22 did not get rated.

Private placement accounted for 68.4% of total resources mobilized by the corporate sector from the primary market. The corresponding share of public issues was a meager 26.6%.

Key Terms Introduced in the Chapter

- Investor Protection
- Project Appraisal
- Underwriting
- Prospectus
- Stock Exchange
- Board of Directors
- SEBI
- Investor Grievances
- Initial Public Offer
- Managers to the Issue
- Private Placement
- Right Issue
- Book Building
- Online IPO
- Eligibility Norms
- Pricing at Premium
- Pricing at Par
- American Depository Receipts
- Global Depository Receipts
- Allotment of Shares

- Registrar to the Issue
- Underwriters
- Bankers to the Issue
- Advertising Agents
- Financial Institutions
- Statutory Agencies
- Collection Centers
- Offer through Prospectus
- Bought out Deals
- Offer for Sale
- Basis of Allotment
- Allotment Method
- Proportionate Allotment
- Issue Details
- Retail Investors
- Non-institutional Investors
- Qualified Institutional Buyers
- Promoter Contribution
- Net Issue
- Over Subscription

Summary with Reference to Learning Objectives

- In the Primary Market stocks are offered for the first time. The functions and organization of the primary market is different from the secondary market.
- In the Primary Market the lead managers manage the issue, the underwriters assure to take up the unsubscribe portion according to his commitment for a commission. The bankers take up the responsibility of collecting the application form and money.
- Advertising agencies promote the new issue through advertising. Financial institutions and underwriter lend term loans to the company. Government agencies regulate the issue.
- The new issues are offered through prospectus. The prospectus is drafted according to SEBI guidelines disclosing the needed information to the investing public.
- In the bought out deal banks or a company buys the promoters shares and they offer them to the public at a later date. This reduces the cost of raising the fund.
- Private placement means placing of the issue with financial institutions. They sell shares to the investors at a suitable price.
- Right issue means the allotment of shares to the previous shareholders at a pro-ratio basis.
- Book building involves firm allotment of the instrument to a syndicate created by the lead managers. The book runner manages the issue.
- Norms are given by SEBI to price the issue. Proportionate allotment method is adopted in the allocation of shares.
- Project appraisal, disclosure in the prospectus and clearance of the prospectus by the stock exchanges protect the investors in the primary market along with the active role played by the SEBI.

Questions for Practice

Short Answers

1. What is meant by Face Value of a share/debenture?
2. What are the different kinds of issues?
3. What does Issue Price mean?
4. What is the difference between public issue and private placement?
5. Who decides the price of an issue?
6. What is the main difference between offer of shares through book building and offer of shares through normal public issue?
7. What is Cut-Off Price?
8. What is the floor price in case of book building?
9. What is a Price Band in a book built IPO?
10. Who decides the Price Band?
11. What is minimum number of days for which a bid should remain open during book building?
12. How long does it take to get the shares listed after issue?
13. Does NSE provide any facility for IPO?
14. Who prepares the Prospectus/Offer Documents?
15. What does one mean by lock-in?
16. What is an American Depository Receipt?
17. What is meant by Global Depository Receipts?
18. What are the norms for Indian ADRs and GDRs?
19. Which Indian companies are listed abroad?
20. Who are authorized collection agents?

Long Answers

1. What is the role of the Primary Market?
2. What do you mean by the term Premium and Discount in a Primary Market?
3. Why do companies need to issue shares to the public?
4. What is an Initial Public Offer (IPO)?
5. What does price discovery through Book Building Process mean?
6. How can open outcry system be used for book building?
7. How can individual investor use the book building facility to make an application?
8. How does one know if shares are allotted in an IPO/offer for sale? What is the timeframe for getting refund if shares are not allotted?
9. What is the role of a Registrar to an Issue?
10. What is a Prospectus?
11. What does Draft Offer document mean?
12. What is an Abridged Prospectus?
13. What is SEBI's role in an Issue?
14. Does it mean that SEBI recommends an issue?
15. Can companies in India raise foreign currency resources?
16. Explain the Basis of Allotment?
17. Explain the Allotment of Shares?
18. Why do companies go for ADRs or GDRs?
19. Explain the eligibility norms for any company issuing securities through the offer document?
20. Explain the various ways in which the Initial Public Offers (IPOs) are floated in the market?
21. Explain the salient features of the prospectus?
22. Explain the roles of the parties involved in the IPO?
23. Explain the measures taken to revive the primary market?
24. Discuss Investor protection in the primary market?
25. Describe the factors to be considered by the investors while investing in the new issue market?

CHAPTER 3

Secondary Markets

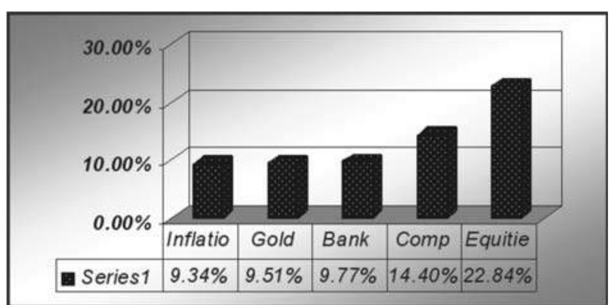
LEARNING OBJECTIVES

After studying this chapter, you will be able:

- To distinguish between primary and secondary markets.
- To understand how the secondary markets, where securities are traded, are organized, how they operate and how they differ from each other.
- To recognize the various stock market indices typically encountered by investors.
- To follow changes that are occurring in the financial markets based on our understanding of what has happened in the past.
- To explain broker's roles and how brokerage firms operate.
- To appreciate the changing nature of the secondary markets.
- To understand how orders to buy and sell securities work in the various market places.
- To assess the role of regulators in the secondary markets.
- To assess the role of various intermediaries in the secondary markets.
- To understand key concepts of the secondary markets, such as, Margins, Rolling settlement, Contract notes, Price bands, Clearing and Settlement etc.

You have heard about them all - the exhilarating story of bulls and bears - how they drive the markets crazy and end up multiplying money in a way you never dreamt to be possible through other equitable means. When you read about the amazing success stories of Peter Lynch, Warren Buffet or Mark Mobius form the financial world and how they have earned billions for their investors through stock (secondary) market investments, you are genuinely tempted to try your hand at stocks.

In this Chapter we have used the words "stocks", "equities", "shares" synonymously. Here we will deal with some of the key issues related to stock markets and its operations, but before we start with the basics, we would like to explain one thing. Do stocks deliver more than any other investments? The answer is: Yes, both in terms of return and risk, they do. Look at the picture below:



Source: RBI Report on Currency and Finance (1980 - 2006)
BSE Sensitive Index of Equity price - BSE

If you glance at the picture, you would see that stocks offer the highest return and you are probably tempted to put all your money in equity only. If they give the highest return, why not? But the case is not as simple as it looks.

Stock (secondary) market is a Wild West where rampaging bulls and grisly bears can devour the naive. When you are buying or selling stocks, you are pitted against thousands of other operators who go for the kill. Technically speaking, as your profit is someone else's loss, it helps you to be aware who the other players are and what chances you have to beat them in their game. This chapter deals in explaining the functions and operations of these markets to help you learn this game.

3.1 Secondary Markets

The market for long-term securities like bonds, equity stocks and preferred stocks is divided into primary market and secondary market. The primary market deals with the new issues of securities. Outstanding securities are traded in the secondary market, which is commonly known as stock market that predominantly deals in the equity shares. Debt instruments like bonds and debentures are also traded in the stock market. Well-regulated and active stock market promotes capital formation. Growth of the primary market depends on the secondary market. The health of the economy is reflected by the growth of the stock market.

3.1.1 Relationship between the Primary and Secondary Markets

- The new issue market cannot function without the secondary market. The secondary market or the stock market provides liquidity for the issued securities the issued securities are traded in the secondary market offering liquidity to the stocks at a fair price.
- The stock exchanges through their listing requirements, exercise control over the primary market. The company seeking for listing on the respective stock exchange has to comply with all the rules and regulations given by the stock exchange.
- The primary market provides a direct link between the prospective investors and the company. By providing liquidity and safety, the stock markets encourage the public to subscribe to the new issues. The market ability and the capital appreciation provided in the stock market are the major factors that attract the investing public towards the stock market. Thus, it provides an indirect link between the savers and the company.
- Even though they are complementary to each other, their functions and the organizational set up are different from each other. The health of the primary market depends on the secondary market and vice-versa.

3.1.2 History

The origin of the secondary market i.e., stock exchanges in India can be traced back to the later half of 19th century. After the American Civil War (1860-61) due to the

share mania of the public, the number of brokers dealing in shares increased. The brokers organized an informal association in Mumbai named "The Natic Stock and Share Brokers Association" in 1875.

Increased activity in trade and commerce during the First World War and Second War resulted in an increase in the stock trading. Stock exchanges were established in different centers like Chennai, Delhi, Nagpur, Kanpur, Hyderabad and Banaglore.

The growth of stock exchanges suffered a set back after the end of World War. Worldwide depression affected them. Most of the stock exchanges in the early stages had a speculative nature of working without technical strength. Securities and Contract Regulation Act 1956 gave powers to the central government to regulate the stock exchanges. The SCR Act recognized the stock exchanges in Mumbai, Kolkata, Chennai, Ahmedabad, Delhi, Hyderabad and Indore. The Bangalore stock exchange was recognized only in 1963. At present we have 23 stock exchanges and 21 of them had hardware and software compliant to solve Y2K problem.

Table 1: Turnover on Stock Exchanges in India*

Stock Exchanges		Turnover (Rs.mn.)		Share in turnover (%)	
		2003-04	**2004-05**	**2003-04**	**2004-05**
1	NSE	10,995,339	11,400,720	67.85	68.39
2	Mumbai	5,026,184	5,187,170	31.02	31.12
3	Calcutta	19,275	27,150	0.12	0.16
4	Uttar Pradesh	117,510	53,430	0.73	0.32
5	Ahmedabad	45,445	80	0.28	0.00
6	Delhi	34	--	0.00	--
7	Pune	0.0	3	0.00	0.00
8	Ludhiana	0.0	--	0.00	--
9	Bangalore	0.5	--	0.00	--
10	ICSE	0.5	--	0.00	--
11	Hyderabad	19.6	140	0.00	0.00
12	SKSE	0.0	0	0.00	0.00
13	Madras	1,008.9	270	0.01	0.00
14	Madhya Pradesh	0.0	--	0.00	--
15	Vadodara	1.4	--	0.00	--
16	OTCEI	157.6	0	0.00	0.00
17	Gauhati	0.0	--	0.00	--
18	Cochin	0.0	--	0.00	--
19	Magadh	0.7	--	0.00	--
20	Bhubaneshwar	0	--	0.00	--
21	Coimbatore	0	--	0.00	--
22	Jaipur	0	--	0.00	--
23	Mangalore	0	0	0.00	0.00
	Total	**16,204,977**	**16,668,963**	**100.00**	**100.00**

* Excludes turnover in WDM and Derivatives Segment of Exchanges

Source: SEBI Annual Report 2004-05

Till recent past, floor trading took place in all the stock exchanges. In the floor trading system, the trade takes place through open outcry system during the official trading hours. Trading posts are assigned for different securities where buy and sell activities of securities took place. This system needs a face-to-face contact among the traders and restricts the trading volume. The speed of the new information reflected on the prices was rather slow. The deals were also not transparent and the system favored the brokers rather than the investors.

The setting up of NSE and OTCEI with the screen based trading facility resulted in more and more stock exchanges turning towards the computer based trading. Bombay stock exchange introduced the screen based trading system in 1995, which is known as BOLT (Bombay On-line Trading System). Madras stock exchange introduced Automated Network Trading System (MANTRA) on Oct 7th 1996. Apart from Bombay stock exchange, Vadodara, Delhi, Pune, Bangalore, Calcutta and Ahemedabad stock exchanges have introduced screen based trading. Other exchanges are also planning to shift to the screen based trading.

3.1.3 Functions

Maintains Active Trading: Shares are traded on the stock exchanges, enabling the investors to buy and sell securities. The prices may vary from transaction to transaction. A continuous trading increases the liquidity or marketability of the shares traded on the stock exchanges.

Fixation of Prices: Price is determined by the transactions that flow from investors' demand and supplier's preferences. Usually the traded prices are made known to the public. This helps the investors to make better decisions.

Ensures Safe and Fair Dealing: The rules, regulations and by-laws of the stock exchanges' provide a measure of safety to the investors. Transactions are conducted under competitive conditions enabling the investors to get a fair deal.

Aids in Financing the Industry: A continuous market for shares provides a favorable climate for raising capital. The negotiability and transferability of the securities helps the companies to raise long-term funds. When it is easy to trade the securities, investors are willing to subscribe to the initial public offerings. This stimulates the capital formation.

Dissemination of Information: Stock exchanges provide information through their various publications. They publish the share prices traded on daily basis along with the volume traded. Directory of Corporate information is useful for the investors' assessment regarding the corporate. Handouts, handbooks and pamphlets provide information regarding the functioning of the stock exchanges.

Performance Induced: The prices of stock reflect the performance of the traded companies. This makes the corporate more concerned with its public image and tries to maintain good performance.

Self-regulating Organization: The stock exchanges monitor the integrity of the members, brokers, listed companies and clients. Continuous internal audit safeguards the investors against unfair trade practices. It settles the disputes between member brokers, investors and sub-brokers.

3.1.4 Regulatory Framework

The Securities Contract Regulation Act, 1956 and the Securities and Exchanges Board of India Act, 1992, provided a comprehensive legal framework. A three tire regulatory structure comprising the Ministry of Finance, the Securities and Exchanges Board of India and the Governing Boards of the Stock Exchanges regulates the functioning of stock exchanges.

Ministry of Finance: The stock Exchanges Division of the Ministry of Finance has powers related to the application of the provision of the SCR Act and licensing of dealers in the other area. According to SEBI Act, the Ministry of Finance has the appellate and supervisory powers over the SEBI. It has power to grant recognition to the Stock Exchanges and regulation of their operations. Ministry of Finance has the power to approve the appointments of chief executives and nominations of the public representatives in the Governing Boards of the stock exchanges. It has the responsibility of preventing undesirable speculation.

The Securities and Exchange Board of India: The Securities and Exchange Board of India even though established in the year 1988, received statutory powers only on 30th Jan 1992. Under the SEBI Act, a wide variety of powers is vested in the hands of SEBI. SEBI has the powers to regulate the business of stock exchanges, other security markets and mutual funds. Registration and regulation of market intermediaries are also carried out by SEBI. It has the responsibility to prohibit the fraudulent unfair trade practices and insider dealings. Takeovers are also monitored by the SEBI. Stock Exchanges have to submit periodic and annual returns to SEBI. The main objective of the SEBI is to promote the healthy growth of the capital market and protect the investors.

The Governing Board: The Governing Board of the stock exchange consists of elected member directors, government nominees and public representatives. Rules, byelaws and regulations of the stock exchange provide substantial powers to the Executive Director for maintaining efficient and smooth day-to-day functioning of the stock exchange. The governing Board has the responsibility to orderly maintain the well-regulated market. The governing body of the stock exchange consists of 13 members of which; (a) 6 members of the stock exchange are elected by the members of the stock exchange, (b) central government nominates not more than three members, (c) the board nominates

three public representatives, (d) SEBI nominates persons not exceeding three and (e) the stock exchange appoints one Executive Director.

One third of the elected members retire at annual general meeting. The retired member can offer himself for election if he is not elected for two consecutive years. If a member serves in the governing body for two years consecutively, he should refrain from offering himself for another two year. The members of the governing body elect the President and Vice-President. It needs no approval from the Central Government or the Board. The office tenure for the President and Vice-President is one year. They can offer themselves for re-election, if they have not held office for two consecutive years. In that case they can offer themselves for re-election after a gap of one-year period.

3.1.5 Growth and Statistics

The trading intensity of Indian stock exchanges is impressive by world standards. Among the biggest exchanges, measured by the number of trades per calendar year, the National Stock Exchange (NSE) retained rank 3 in all the four years (Table 2). The Bombay Stock Exchange (BSE) climbed from rank 7 to rank 5 between 2002 and 2003, and has stayed at rank 5 ever since. The Shanghai exchange lost ground, going from rank 4 to rank 6 in the latest year

Both Nifty (index of the top 50 stocks of the country) and the Nifty Junior (the second-tier index of the next 50 stocks) have delivered strong positive returns in the recent four-year period (Tables 3 and 4). From January 2002 to December 2005, the Nifty index went from 1,075 to 2,837, giving compound returns of 27.45 per cent per year. From January 2002 to December 2005, the Nifty Junior index went from 1,349 to 5,541 giving compound returns of 42.36 per cent per year.

These impressive returns were successfully replicated by passive managers who offered index funds on the two indexes, thus demonstrating the viability of index funds. A complete 'index ecosystem' is now vibrantly operating in India, comprising indexes, index funds, exchange traded funds (ETFs), index derivatives, and electronic index arbitrage. From 2004 onwards, Nifty has been the biggest underlying on the equity derivatives market on all days. The sophisticated interrelationships between each of these elements constitute a key success of Indian financial infrastructure.

Table 2: Biggest exchanges by number of transactions in 2005
Rank by number of transactions

	2002	2003	2004	2005
NASDAQ	1	1	1	2
NYSE	2	2	2	1
NSE	3	3	3	3
Shanghai	5	4	4	6

BSE	7	5	5	5
Korea	4	7	6	4
Taiwan	6	6	7	8
Shenzhen	8	8	8	7
Deutsche Borse	9	9	9	9
London/Euronet	12	11	10	10

Table 3: Movements of the index of the top 50 stocks (Nifty)

	2002	2003	2004	2005
January	1,075	1,042	1,810	2,058
February	1,142	1,063	1,800	2,103
March	1,130	978	1,772	2,036
April	1,085	934	1,796	1,903
May	1,029	1,007	1,484	2,088
June	1,058	1,134	1,506	2,221
July	959	1,186	1,632	2,312
August	1,011	1,357	1,632	2,385
September	963	1,417	1,746	2,601
October	951	1,556	1,787	2,371
November	1,050	1,615	1,959	2,652
December	1,094	1,880	2,081	2,837

Table 4: Movements of the index of the next 50 stocks (Nifty Junior)

	2002	2003	2004	2005
January	1,349	1,377	3,368	4,248
February	1,496	1,387	3,331	4,388
March	1,567	1,260	3,392	4,275
April	1,608	1,340	3,640	4,024
May	1,497	1,664	2,847	4,365
June	1,617	1,784	2,905	4,393
July	1,456	2,012	3,082	4,919
August	1,453	2,275	3,199	5,053
September	1,258	2,457	3,504	5,304
October	1,255	2,657	3,482	4,714
November	1,337	2,801	3,885	5,242
December	1,413	3,406	4,453	5,541

The impressive returns on indexes through the recent four years have been associated with fairly stable P/E ratios (Table 5). The bulk of the returns, hence, were obtained through growth in earnings of companies.

Table 5: Equity returns, volatility, market capitalization and Price Earning (P/E) ratio

	2002	2003	2004	2005
BSE Sensex:				
Returns (per cent)	**3.5**	**72.9**	**13.1**	**42.33**
End-year mkt.cap. (Rs.crore)	2,76,916	6,35,015	7,35,528	12,13,867
Daily Volatility	1.10	1.17	1.58	1.08
End-year P/E	14.64	18.86	17.07	18.61
Nifty:				
Returns (per cent)	3.3	71.9	10.7	36.34
End-year mkt.cap. (Rs.crore)	3,52,943	6,34,248	9,02,831	13,50,394
Daily Volatility	1.07	1.23	1.73	1.11
End-year P/E	14.83	20.73	15.32	17.07

Nifty Junior:				
Returns (per cent)	8.8	141.0	30.8	24.43
End-year mkt.cap. (Rs.crore)	35,668	1,32,409	1,65,444	2,18,575
Daily Volatility	1.34	1.37	1.94	1.22
End-year P/E	12.26	15.73	14.19	17.11
Source: BSE and NSE				

At the end of calendar 2005, the market capitalization of Nifty at Rs.13.5 lakh crore and the Nifty Junior at Rs.2.2 lakh crore, added up to Rs.15.7 lakh crore or roughly two-thirds of the broad Indian equity market (2,540 companies with Rs.24.7 lakh crore of market value). This implies that the available index funds now cover two-thirds of the Indian equity market.

The volatility of the equity market in 2005 was at a low level. While this partly reflected the end of the uncertainty associated with the general elections of 2004, the volatility was also lower than that in the preceding two years.

Table 6 shows patterns of volatility over two recent two-year periods, for two Indian indexes (Nifty and Nifty Junior) and two indexes outside the country (the S&P 500 of the US and the Korean Seoul Composite Index). In the Indian case, the uncertainties associated with the general elections of 2004 resulted in elevated volatility in the January 2004 to December 2005 period when compared with the preceding two years. In contrast, equity volatility globally was reduced. In particular, the US S&P 500 was a remarkably low volatility asset in the recent two years, with a weekly volatility of just 1.41 per cent.

The best measure of liquidity is the 'impact cost', which is inherent when doing transactions on the secondary market. A liquid market is one where the cost of transactions is low. The impact cost for purchase or sale of Rs.50 lakh of the Nifty portfolio has dropped steadily and sharply through the recent four years, from a level of 0.12 per cent in 2002 to 0.08 per cent in 2005 (Table 7). Similarly, the impact cost for doing purchase or sale of Rs.25 lakh of the Nifty Junior index has dropped steadily and sharply through the recent four years, from a level of 0.41 per cent in 2002 to 0.16 per cent in 2005.

Table 6: Volatility of weekly returns on the equity market

Class of stocks	**Period**	
	Jan' 02 - Dec' 03	**Jan' 04 - Dec' 05**
India		
Top 50 (Nifty)	2.59	2.85
Next 50 (Nifty Junior)	3.08	3.47
Outside India		
U.S. (S&P 500)	2.51	1.41
Korea (Kospi)	4.12	2.81

These improvements suggest a substantial gain in liquidity on the Indian equity market in recent years. In addition, the gap between the liquidity of Nifty and that of Nifty junior, as shown in this data, has dropped sharply. This shows the percolation of liquidity beyond the top 50 stocks. These improvements demonstrate the success of the reforms programme on the equity market, which has been undertaken from 1993 onwards. In absolute terms, these values are impressive by world standards. As an example, the impact cost of 8 basis points that is faced in doing arbitrage with the Nifty futures with a basket of roughly US$100,000 is a level that is comparable with that found in many OECD countries. This implies that index arbitrage in India can deliver levels of market efficiency on the index futures market that is comparable to that in many OECD countries.

Table 7: Equity spot market liquidity

	2002	2003	2004	2005
Nifty: NSE impact cost at Rs.5 million (per cent)	0.12	0.10	0.09	0.08
Nifty Junior: NSE impact cost at Rs.2.5 million (per cent)	0.41	0.32	0.31	0.16

In addition to the impact cost, market participants also have to pay user charges to the stockbroker and to the exchange, and transaction taxes such as the Securities Transaction Tax. In some of these respects also, India fares well. As an example, the per transaction charges applied by National Securities Depository Limited (NSDL) and Central Depository Services Limited (CDSL) are amongst the lowest in the world. The statistics for impact cost shown above, however, focus on the transactions costs incurred on the electronic trading system alone, and ignore these in other than electronic trading system.

Table 8: Growth of turnover

(Turnover in Rs.crores)

	For Calendar Year 2002	2003	2004	2005
NSE spot	6,24,322	9,07,882	11,70,298	13,88,112
BSE spot	3,32,913	4,09,373	5,29,704	7,01,024
NSE derivatives	3,45,443	13,50,610	25,86,738	39,26,843
BSE derivatives	928	9,103	19,173	19,652
Indian equity turnover	13,03,508	27,57,287	43,14,322	60,17,944

Source: SEBI

Table 9: A predominantly retail market				
	As of year-end			
	2002	**2003**	**2004**	**2005**
Number of NSDL accounts	38,13,336	46,12,884	59,69,000	72,76,300
Average trade size (rupees)				
	NSE spot	26,703	26,993	27,716
24,293				
	BSE spot	22,485	22,782	25,610
13,689				
	NSE derivatives	3,00,334	4,25,077	4,88,790
5,01,946				

Source: SEBI

Table 10: Assets under management of mutual funds				
				(Rs.crores)
	At end of year			
	2002	2003	2004	2005
Money market	10,801	32,424	59,447	64,711
Gilt	4,316	6,917	4,876	3,730
Income	77,469	71,258	47,451	52,903
Growth	14,371	22,938	31,551	67,144
Balance	14,164	4,663	5,472	6,833
ELSS	1,479	1,893	1,740	3,927
Total	1,22,600	1,40,093	1,50,537	1,99,248

Source: SEBI

While impact cost is the best measure of liquidity, since liquidity is about being able to transact at minimal cost, stock market turnover is important to market intermediaries who have revenue streams in proportion to turnover. In addition, turnover is also useful as a proxy for liquidity, in facilitating comparisons across markets where impact cost is not measured. Table 8 shows the growth of "net" or "one-way" turnover on the Indian equity market. From 2003 onwards, derivatives turnover has exceeded spot market turnover, as is the case with all successful derivatives markets in the world. This underlines the importance of the derivatives market, which now dominates price discovery. The

number of stocks on which individual stock derivatives are traded has gone up steadily, from 31 in 2001 to 117 today, which has helped in the percolation of liquidity and market efficiency into the second tier of firms.

NSE and BSE spot market turnovers added up to Rs.20.9 lakh crore in 2005, and NSE and BSE derivatives turnover added up to Rs.39.5 lakh crore in 2005. Both these values showed significant growth when compared with the previous year. The total equity market turnover went up from Rs.43 lakh crore in 2004 to Rs.60.2 lakh crore in 2005. This growth is partly mere arithmetic, for rupee turnover goes up commensurate with higher stock prices.

In terms of the composition of market participants, the equity market continued to be dominated by retail investors. The average transaction size on the spot market dropped in 2005 on both NSE and BSE (Table 9). Across both the derivatives market and the spot market, the average transaction is one, which is accessible to a very large number of households in the country. The number of depository accounts at NSDL continued to grow rapidly, with a rise of 21.9 per cent in 2005, which corresponds to over 5,000 accounts being opened per working day. In addition to NSDL, CDSL had 1,270,071 accounts as of 2005. The sum of NSDL and CDSL accounts stood at 85 lakh.

Mutual funds are an important avenue through which households participate in the securities market. Intermediation through mutual funds is particularly attractive from the viewpoint of systemic stability, because mutual funds only hold transparent assets, do daily marking to market, have no leverage, and all losses are instantly passed on to the balance sheets of households. While assets under management of all mutual funds had stagnated at roughly Rs.1.5 lakh crore between 2003 and 2004, there was a significant rise to a level of roughly Rs.2 lakh crore in 2005.

From the early 1990s, India has developed a framework through which foreign investors participate in the Indian securities markets. A foreign investor can either come into India as a foreign institutional investor (FII) or as a sub-account. In December 2005, the number of FIIs stood at 823 and the number of sub-accounts stood at 2,273. The net investment from FIIs on the equity spot market rose from Rs.38,965 crore in 2004 to Rs.47,182 crore in 2005.

Information about the transactions of investors - such as FIIs or institutional investors - is reported from the viewpoint of only one side of the transaction. In order to compare this against the market size, total turnover is expressed as "gross turnover" or "two-way turnover". Summing across spot and derivatives markets, the share of all institutional investors was 10.3 per cent. The share of FIIs was 8.1 per cent. These facts underline the domination of Indian retail in turnover. In particular, on the derivatives markets, which now dominate price discovery, Indian retail accounts for a substantial share of the turnover.

The growth of international trade, and India's financial market integration through the convertibility which FIIs have, is expected to lead to greater correlations between India and the global economy. This would be revealed in correlations of weekly returns of stock market indexes. The correlations for two 2- year periods - 2002-2003 versus 2004-2005 - are compared in Table 13 and 14.

Table 11: Foreign institutional investors

(Rs.crores)

	For calendar year			
	2002	**2003**	**2004**	**2005**
End-year number of FIIs	489	517	637	823
End-year number of sub-accounts	1,372*	1,361*	1,785	2,273
Equity market activity:				
Gross buy	48,876	94,412	1,85,672	2,86,021
Gross sell	45,311	63,954	1,46,706	2,38,839
Net (Gross Buy - Gross Sell)	3,566	30,458	38,965	47,182
Gross buy			84,205	2,54,322
Gross sell			86,133	2,49,875
Net (Gross Buy - Gross Sell)			-1,928	4,447

Source: SEBI * as on March, 31

Table 12: Gross Turnover from institutional investors

(Rs.crores)

	For calendar year			
	2002	**2003**	**2004**	**2005**
Spot market:				
NSE + BSE gross turnover	19,14,273	26,34,085	34,16,824	41,78,295
All institutions	1,13,374	2,04,745	3,70,609	7,14,638
FIIs	54,016	1,58,366	3,32,379	5,02,590
Derivatives:				
NSE + BSE gross turnover	6,92,742	28,80,489	52,11,820	78,53,687
All institutions		51,397	1,76,940	5,21,762
FIIs			1,70,338	4,76,925

Equity spot + Derivatives:				
NSE + BSE gross turnover	26,07,015	55,14,574	86,28,645	1,20,31,981
All institutions	1,13,374	2,56,142	5,47,449	12,36,400
FIIs	54,016	1,58,366	5,02,717	9,79,515

Table 13: Correlations of equity Jan'04 to Dec'05

	Nifty	Nifty Junior	S&P 500	Seoul
Nifty	1			
Nifty Junior	0.76	1		
S&P 500	0.26	0.17	1	
Seoul	0.27	0.2	0.45	1

Table 14: Correlations of equity indexes, indexes, Jan'02 to Dec'03

	Nifty	Nifty Junior	S&P 500	Seoul
Nifty	1			
Nifty Junior	0.89	1		
S&P 500	0.35	0.26	1	
Seoul	0.49	0.45	0.48	1

South Korea, which is now an OECD country and has capital account convertibility, serves as a useful comparison point for India. In the 2002-2003 period, the South Korean correlation with the US was at 0.45. This has risen slightly to 0.48 in the 2004-2005 period. In India's case, the front tier of stocks (Nifty) had a rise in the correlation with the US from 0.26 to 0.35 during the same period. Similarly, the second tier of stocks (Nifty Junior) had a rise in the correlation with the US from 0.17 to 0.26.

The Secondary Market for Debt: The policy directions of the equity market and the debt market have taken different paths from 1992 onwards. In contrast with the blossoming institutional sophistication and growing liquidity of the equity market, the debt market has continued to turn in poor outcomes. With the continuation of substantial fiscal deficits, a large volume of bond issuance had taken place every year. However, this growing market size has not been translated into liquidity and market efficiency as yet. Impact cost, which is the best measure of liquidity of a market, is not observed on the bond market owing to non-transparent trading procedures. The turnover ratio, which is the best available proxy, dropped every year from 2002 onwards, to a level of 71 per cent in 2005. The number of bonds with a turnover ratio in excess of 75 per cent dropped from 40 bonds in 2003 to just 13 bonds in 2005.

Interest rates on the GoI bonds have risen from 2004 onwards. The zero-coupon rate on a 1-year bond rose from 4.75 per cent in 2003 to 6.09 per cent in 2004 and further to 6.28 per cent in 2005. Similarly, the zero coupon rate on a 10-year bond rose from 5.38 per cent in 2003 to 6.78 per cent in 2004 and further to 7.22 per cent in 2005. Owing to these increases in interest rates, the returns on a broad portfolio of government bonds (the GOI bond index) were negative in both 2004 and 2005. The volatility of this portfolio also rose significantly to 0.66 per cent per day in 2005.

Table 15: Government of India (GOI) bond market size

(Rs.crores)

	For calendar year			
	2002	**2003**	**2004**	**2005**
Gross issuance	1,20,213	1,13,000	1,19,500	1,29,350
End-year market cap.	6,55,148	9,59,903	9,96,341	10,51,521
SGL turnover	12,93,814	15,98,052	10,70,896	7,50,982
Turnover ratio (per cent)	197.48	166.48	107.48	71.42
Number of bonds with TR > 75 per cent	33	40	28	13
Demat GOI bonds at NSDL:				
Value (Rs.crore)		1,956	3,688	5,073
Number of accounts containing GOI bonds	924	1,580	1,960	2,341

Table 16: Government of India (GOI) bond market outcome

	Calendar year			
	2002	**2003**	**2004**	**2005**
Notional GOI ZC 1-year bond:				
Interest rate	5.44	4.75	6.09	6.28
Returns (per cent)	1.37	0.73	-1.24	0.35
Returns volatility	0.15	0.27	0.36	0.29
Notional GOI ZC 10-year bond:				
Interest rate	6.12	5.38	6.78	7.22
Returns (per cent)	20.28	6.83	-12.66	-4.32
Returns volatility	0.58	0.59	0.71	0.70
NSE GOI bond index:				
Returns (per cent)	15.95	10.03	-3.75	-3.40
Returns volatility	0.43	0.39	0.59	0.66

Table 17: Market Participants in Securities Market			
Market Participants		**Number as on March 31**	
		2004	**2005**
Securities Appellate Tribunal		1	1
Regulators		4	4
Depositories		2	2
Stock Exchanges			
	With Equities Trading	23	23
	With Debt Market Segment	1	1
	With Derivatives Trading	2	2
Brokers		9,368	9,128
Corporate Brokers		3,746	3,733
Sub-brokers		12,815	13,684
FIIs		540	685
Portfolio Managers		60	84
Custodians		11	11
Share Transfer Agents		78	83
Primary Dealers		18	17
Merchant Bankers		123	128
Bankers to an Issue		55	59
Debenture Trustees		34	35
Underwriters		47	59
Venture Capital Funds		45	50
Foreign Venture Capital Investors		9	14
Mutual Funds		37	39

Source: SEBI Bulletin

Lets discuss the role and functions of the participants of this market in detail.

3.2 Securities and Exchange Board of India (SEBI)

The Government has set up the Securities & Exchange Board of India (SEBI) in April 1988. For more than three years, it had no statutory powers. Its interim functions during the period were:

- To collect information and advice the Government on matters relating to Stock and Capital Markets,
- Licensing and regulation of merchant banks, mutual funds etc.,
- To prepare the legal drafts for regulatory and development role of SEBI, and

- To perform any other functions as may be entrusted to it by the Government.

The need for setting up independent Government agency to regulate and develop the Stock and Capital Market in India as in many developed countries was recognized since the Sixth Five Year Plan was launched (1985) when some major industrial policy changes like opening up of the economy to outside world and greater role to the Private Sector were initiated. The rampant malpractices noticed in the Stock and Capital Market stood in the way of infusing confidence of investors, which is necessary for mobilization of larger quantity of funds from the public, and helps the growth of the industry.

The malpractices were noticed in the case of companies, merchant bankers and brokers who are all operating in the Capital Market. The need to curb these malpractices and to promote healthy Capital Market in India was felt. The security industry in India has to develop on the right lines for which a competent Government agency as in U.K. (SIB) or in U.S.A. (SEC) is needed.

As referred to earlier, malpractices have been reported in both the primary market and secondary market. A few examples of malpractices in the primary market are as follows:

- Too many self style Investment Advisors and Consultants.
- Grey Market or unofficial premiums on the new issues.
- Manipulation of market prices before new issues are floated.
- Delay in allotment letters or refund orders or in dispatch of share certificates.
- Delay in listing and commencement of trading in shares.

A few examples of malpractices in the secondary market are as follows:

- Lack of transparency in the trading operations and prices charged to clients.
- Poor services due to delay in passing contract notes or not passing contract notes, at all.
- Delay in making payments to clients or in giving delivery of shares.
- Persistence of odd lots and refusal of companies to stop this practice of allotting shares in odd lots.
- Insider trading by agents of companies or brokers rigging and manipulating prices.
- Take over bids to de-stabilize the management.

3.2.1 Objectives

The SEBI has been entrusted with both the regulatory and developmental functions. The objectives of SEBI are as follows:

- Investor protection, so that there is a steady flow of savings into the Capital Market.
- Ensuring the fair practices by the issuers of securities, namely, companies so that they can raise resources at least cost.
- Promotion of efficient services by brokers, merchant bankers and other intermediaries so that they become competitive and professional.

Pending the legislative sanction to SEBI it carried out the functions of supervisory and advisory body of the Government. It has initiated the basis for control and regulation of the market, arranged for the licensing of merchant banks, mutual funds etc. and performed the advisory functions to the Govt.

The legislation giving powers to SEBI was passed on 4th April 1992 in the form of the Securities & Exchange Board of India Act 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.

3.2.2 Details of SEBI Guidelines - for Capital Market

Repealing of CCI Act: SEBI guidelines were issued after the repeal of the CCI Act whereby the CCI guidelines became out of date. New guidelines by SEBI were issued starting from the month of June 1992. Some CCI guidelines were still retained, as in the case of those for premium fixation.

Guidelines for new issues made by new companies: They have to be issued at par. Free pricing is permitted only if the new company is promoted by the existing company with not less than 50% of equity.

Guidelines for new issues made by private limited companies: New issues made by Private Limited Companies and Closely held companies could be made by free pricing, for listing purposes if such companies have had three years of track record of consistent profitability out of last 5 years. Not less than 20% of equity is to be offered to the public, in such cases.

Guidelines for new issues made by existing listed companies: Public issues by existing listed companies can be made through free pricing, if they are further issues and if they are disclosed in the prospectus. The NAV and the market price have to be considered for the last 3 years. The companies with foreign holding wishing to enhance the limit up to 51% will have to get the prices approved in the general body meeting by a special resolution under Sec. 81 (A) of the Companies Act, and subject to RBI approval.

Listing of shares on the OTC: If the new issues are made through OTC, normal guidelines will apply if the sponsor is not taking any share. If the shares are taken by the sponsor, subsequent offer to the public may be made at such a price as the sponsor may deem fit. The promoters should retain 25% quota with a lock in period of 5 years, the sponsor should act as market maker for a period of at least 3 years and also find another market maker for compulsory market making. This condition was relaxed recently to encourage OTC Listing.

Underwriting issues: Underwriting is optional if the issue is made to the public and should not include reserved or preferential quota or employees' quota. If the subscription is not up to 90% of the total issue from the public including contribution of underwriters,

the public should be refunded of their subscription within 120 days from the date of opening the issue. The compulsory underwriting provision was also waived for smaller issues.

Composite issues: Issues to the public by existing company can be priced differently as compared to the rights issued to shareholders.

FCD & PCD: The issues of Fully Convertible Debentures (FCDs) with a conversion period of more than 36 months will not be permissible unless conversion is optional. In case FCDs are convertible after 18 months, credit rating is compulsory; credit rating is now made compulsory for all issues made to public, other than equity. In case, the nonconvertible portion of the Partially Convertible Debentures is to be rolled over, non-maturing debenture holders should have option to withdraw from the scheme.

New Financial Instruments: The terms and conditions of the new instruments such as Deep Discount Bonds, debentures with warrants and secured premium notes etc. should be disclosed clearly so that the investor can assess the risk and return scenario of the instrument.

Reservation in issues: The unreserved portion offered to public should not be less than the minimum required for listing purposes. Preferential allotment can be made to promoters, companies and shareholders of those companies, NRIs, employees and associate companies of the same group. The allotment shall be subject to a lock in period of three years, if it is made on firm basis, outside public issue.

Deployment of issue proceeds: Where the total proceeds exceed Rs.250 crores, the company will voluntarily disclose the arrangements made to utilize proceeds. When the total issue proceeds exceed Rs.500 crores, there is need for making compulsory disclosure and for the financial institutions to monitor the deployment of funds, to the stock exchanges.

Minimum interval between two issues: 12 months should elapse between the public or rights issue and bonus issue. The promoters should bring in their share of the capital before the public issue.

Employee's stock option scheme: The reservation for employees should not be more than 10% at present and this quota is non-transferable for 3 years and subject to a maximum allotment of 200 shares per employee, and the lock in was removed later. The Lock in period for Promoters' quota is 5 years and the lock in period for preferential allotment for associates and friends is 3 years.

Bonus shares: Bonus issues are to be made out of free reserves, the share premium collected in cash, Development Rebate Reserves and Investment Allowance Reserve. Contingent liabilities disclosed in the audited accounts should be deducted from net profit for calculation of residual reserves. Residual reserves after the bonus issues should be at least 40% of the increased paid-up capital. 30% of the average profits before

tax for the previous 3 years should yield a rate of dividend of 10% on the expanded capital base. Reserves out of revaluation should not be used for bonus payment. Bonus issue cannot be made in lieu of dividends, and if there are partly paid up shares; no bonus issue is permitted. Expanded paid-up capital after bonus issue should not exceed authorized share capital. When a company has PCD or FCD, pending conversion, no bonus issue can be made unless this right is kept open to the holders of FCD and PCD falling due for conversion within 12 months.

Debenture issues: All debentures, which have a life of more than 18 months, should have a DRR created by company out of profits. DRR should be created only for nonconvertible portion of the debentures. Contribution to DRR should commence from the date of commercial production and when there are profits after tax, interest and depreciation. The DRR will be considered as a part of the general reserves for payment of the bonus issues. DRR should be created and maintained at 50% of the amount of the debentures before repayment starts. The company should have already redeemed some liability. DRR and the creation of Debenture Trust are necessary only if the debentures have a maturity period exceeding 18 months. The Lead Institution for each issue should monitor the use of debenture funds either from the working capital or from the project finance. The SEBI now insists on prior licensing of debenture Trustees; Trust deed should be ready within 6 months from the date of allotment.

Recent amendment: By a recent amendment to Listing Agreement, the Companies have been asked to provide unabridged Balance Sheet to Shareholders. The companies have to give the disposition of the funds raised in public issues and compare the actual with targets every six months, when they present balance sheet to investors.

3.2.3 SEBI reforms on Stock Exchanges

The SEBI regulation of stock exchanges and their members had started as early as February 1992 and the reforms later introduced have been on a continuous basis. It was started with the licensing and registration of brokers and sub-brokers in the recognized stock exchanges. This was later extended to underwriters, portfolio managers and other categories of players in the stock market including foreign securities firms, FFIs, OCBs, FIIs, Debenture Trustees, Collecting Bankers, etc.

The other reforms are briefly summarized below:

- Compulsory audit and inspection of stock exchanges and their member brokers and their accounts.
- Transparency in the prices and brokerage charged by brokers by showing them in their contract notes.
- Broker accounts and client accounts are to be kept separate and clients' money is to be separately maintained in bank's accounts and the same to be reported to the stock exchanges.
- Board of Directors of stock exchanges has to be reconstituted so as to include non-brokers, public representative, and Government representatives to the extent

of 50% of the total number of members.

- Capital adequacy norms have been laid down for members of various stock exchanges separately and depending on their turnover of trade and other factors.
- Guidelines have been laid down for dealings of FIIs and Foreign broker firms in the Indian stock exchanges through Indian brokers.
- New guidelines for corporate members have been laid down with limited liability of directors and opening up of their membership to more than one stock exchange without the limiting requirement of experience of five years in one exchange, as imposed earlier.

The term "Investor Protection" is a wide term encompassing various measures designed to protect the investors from malpractices of companies, brokers, merchant bankers, issue managers, Registrars of new issues, etc. "Investors Beware" should be the watchword of all programs for mobilization of savings for investment. As all investments have some risk element, this risk factor should be borne in mind by the investors and they should take all precautions to protect their interests in the first place. If caution is thrown to the winds and they invest in any venture without a proper assessment of the risk, they have only to blame themselves. But if there are malpractices by companies, brokers etc., they have every reason to complain. Such grievances have been increasing in number in recent years.

The complaints of investors come from two major sources:

- Against member broker of Stock Exchanges;
- Against companies listed for trading on the Stock Exchanges.

Besides, there can be complaints against sub-brokers, agents, merchant bankers, issue managers, etc., which cannot be entertained by the stock exchanges as per their rules.

3.2.3.1 Complaints Against Members

Investors have complaints against brokers regarding the price, quantity etc. at which transactions are put through, defective delivery or delayed delivery, delayed payment or non-payment etc., non-payment of agreed brokerage to authorized assistants, etc. In the event of default of a member broker, the dues of clients are also to be looked into.

3.2.3.2 Complaints Against Companies

The complaints against companies are in the nature of non-receipt of allotment letters, refund orders, non-receipt of dividends, interest etc., delay in transfer of shares and in splitting and consolidation. The clearance of these complaints is attended to by the grievance cell by writing to the companies, follow-up telexes, etc. and finally by warning to de-list the companies concerned. But the clearances of these complaints are slow due to the non-compliance or slow compliance by the companies to the references made by the cell. The powers of the Stock Exchange are limited to warnings and de-

listing of shares and as such compliance by the companies as poor. SEBI has now powers to penalize companies violating the listing norms.

3.2.3.3 Grievances Cell

There is a Grievance Cell in all Stock Exchanges, which attends to investor complaints. Of the total, nearly 95% are against companies and they are more difficult to settle, as many companies do not attend to the complaints promptly despite reminders and warnings by the stock exchange, in view of the fact that penal powers of the Exchange are limited. The grievance procedure in respect of complaints against members is as follows:

- Joint meeting of member vis-à-vis the clients for an amicable settlement.
- Arbitration proceedings by the committee under the byelaws.
- Special committee appointed by the Executive Director for settlement.
- Disciplinary proceedings including warnings, fines, penalties, etc. particularly in cases of fraud, cheating etc. by the members.

3.2.3.4 Customer's Protection Fund

The Customer's Protection Fund is constituted by the Stock Exchanges to safeguard the interests of the investor clients from default of the stockbrokers. The Fund is financed by way of a levy on the turnover of members and from out of the listing fees, earmarked by the Exchanges.

The Fund is being administered by the Stock Exchange for the benefit of the clients of the member brokers, in case of a default of a member. The compensation of any single client is, however, limited to Rs.2 lakh at present. When a member is declared a defaulter, the net assets in the hands of the defaulter's Committee after defraying costs, charges, expenses etc., relating to the realization of the assets will be used to meet the claims of the exchange, clearing house and then the admitted claims of the members of the exchange against the defaulter. After meeting all these claims, if anything is left over, the claims of the clients of the defaulting member will be satisfied. If nothing is left over, the genuine claims of clients can be met from the Customer's Protection Fund. This is the same procedure adopted by other Exchanges also where this Fund was set up.

3.2.3.5 Investors Beware

Investors in stock and capital markets need a word of caution. Firstly, these investments are more risky, returns are uncertain and share values are subject to wide fluctuations. Secondly, such investments require an art and expertise to pick up the right stocks, failing which the investors would burn their fingers. Thirdly, the players in the market, namely, brokers and issuers of securities, namely, companies, are not rated high for their honesty with the result that investor complaints against stockbrokers and companies have been increasing over the years. It would, therefore, be necessary for investors to prepare themselves well before entering this market.

3.2.3.6 Specific Goals

The investor should be clear in his objectives of income, capital appreciation, short-term gains or long-term gains, etc. He should have made already enough investment in housing and for a regular income to meet his minimum needs and comforts of life. Even if all the stock market investments are wiped out due to a market crash continued bearishness as in 1997 and 1998, the investor should not be on the streets. Besides, if the investor spends sleepless nights on the fall of share prices, he cannot be a good stock market investor. Nor can be gloat over a sporadic success and be a spendthrift.

3.2.3.7 Pre-requisites of Investor

The investor should have abundant common sense and a strong heart to withstand the cruelness of fortune. He need not be a holder of high academic degrees like an MBA from Harvard or a finance graduation from the Wharton School. Nor does he need to have hereditary characteristics or family tradition of investment. The only requirement he should have an abundant logic and common sense and strong nerves and develop the art of investment on a scientific basis.

Although Peter Lynch' calls it an art and is skeptical of the application of academic scientific theories, the fact remains that he attributes the success of investors to personal preparation, hard work involved in the collection of relevant information, knowledge and research and analysis. This shows that it is expertise combined with intuition that plays a vital role in this game on the Dalal Street. Unlike a chess game, which requires intelligence, or a football game, which needs physical prowess, the stock market game requires both an art and a scientific technique.

3.2.3.8 Preparing to Invest

Investors desiring to invest in stocks require a lot of preparation. The weak hearted and risk-averter should first make an entry by buying only debentures, particularly convertible debentures of good companies, or subscribe to new issues of promising and well-established companies. After sufficient study and preparation, the investor should act like rag pickers in the market, picking up scrips on a selective basis. That means selected companies from promising and growing industries should be picked up after collection of all relevant information. The undervalued scrips should be purchased at the right time with the help of technical analysis. Rumors and advice of so-called consultants have to be carefully scrutinized. As the market investment is both a science and an art, it requires both expertise and intuition. There is need for prior preparation and a lot of homework before investments are undertaken. A high degree of caution and planning is necessary but the scientific basis and knowledge are to be acquired by a proper study.

3.2.3.9 Balance Sheet Study

Investors entering the stock market should also get into the habit of detailed and careful study of the balance sheets of companies in which they wish to invest. Similarly, they should examine carefully the detailed prospectus before subscribing to the new issues of companies. The habit of relying on rumors, or advice of brokers or friends should be replaced by the habit of self-study of balance sheets and prospectus of companies. The factors, which should be looked into, and ratios that should be analyzed and the aspects that should be examined are set out in the next chapter under fundamental analysis.

3.2.3.10 Choice of a Broker

Investors should as far as possible deal only with registered members of recognized stock exchanges. In place where there are no stock exchanges, they may deal with those sub-brokers who have connections with registered brokers. An honest and dependable broker is to be chosen through proper introduction and orders should be placed with him in a proper manner with limits on price at which sales or purchases can be made. As and when a transaction is completed, he should insist on a contract note in due time.

3.2.3.11 Protection in the New Issues Market

The main source of information on which investors depend in the new issues market is the prospectus, which should contain correct statements of facts. Any false statements, fraud, etc. are punishable under the Companies act. Under Section 56 of the Companies Act, the Directors are subject to civil liability for any misstatement of facts or untrue statements.

Under Section 63 and 68 of the Companies Act, the Directors are also liable criminally for any fraud of false statements in the prospectus. Companies' liability for misstatements arises from untrue statements and statements which are material for investors and particulars on which investors depend to make investments. The directors or promoters of the company are thus subject to both criminal and civil liability under the Act for any misstatements in the prospectus. Even so, the small investors cannot afford to go to court and, should therefore, carefully read and examine the prospectus for viability of the project and marketability of the product and for the integrity and dependability of the promoters. The investors have also a responsibility to assess the prospects and the risk involved in the project before making any investment.

3.2.3.12 Protection for Fixed Deposits

Section 58A of the Companies Act deals with the subject of Fixed Deposits. There are some rules, which apply to non-banking companies, private and public limited companies, which wish to raise deposits from the public. The Stock Exchange and SEBI have however no Jurisdiction on the company deposits. No deposits can be invited from investors

or the public unless the companies follow the rules and guidelines made by the Department of Company Affairs in consultation with the RBI.

Interest rates, maturity period of deposits, and the amount permissible to be raised by the companies are all given in the form of guidelines by the Department of Company Affairs. The companies have to follow these guidelines while accepting deposits from the public. The Companies Act also regulates renewal and repayment and the rules framed by the Department of Company Affairs. When a company fails to repay the deposit, the depositor can complain to the Company Law Board (CLB) in the specified form duly filled in, together with the fees for non-payment of interest or non-repayment of deposit. The order of the CLB is final and binding on the company and the company has to comply with it. Any non-compliance with the order of the CLB or violation of the provisions of the company law would invite penalty of imprisonment and fine. This provision however does not apply to sick companies. RBI is now controlling the business of NBFCs after they are registered with the RBI, since Jan. 1999.

3.2.3.13 SEBI on IPOs

The SEBI has announced in September 1999 that I.T. companies are subject to a minimum public offer of only 10% of the issued capital instead of 25% for other companies. But I.T. companies have to offer at least Rs.50 crores or give out at least 20 lakh shares. This relaxation is not applicable to Telecom and Multimedia sectors as they already enjoy some concessions under Infrastructure industries. Thus infrastructure companies get exemption from minimum public offer of 25% of the Issued Capital. It s not mandatory for them to secure 90% of minimum subscription before closing the issue and allotment of shares.

The requirement of 5 shareholders for every Rs.1 lakh of offer is waived for them, but all their public issues should be of a Demat form. The number of Mandatory collection centers for public issues of above Rs.10 crores was reduced to 4 metro centers in addition to the place where the Regional Stock Exchange is situated. This is the minimum requirement and companies can have as many collection centers as they want. Besides, the threshold limit for issues that can be sold through book building route is reduced to Rs.25 crores from Rs.100 crores fixed earlier. This was intended to encourage the use of this route by the merchant bankers and reduce the cost of issues.

The fixed par value of Rs.10 per share is now dropped and companies can have any value of share. The SEBI has listed companies whose shares have to be traded and settled in electronic book entry form from 4th January 2000. The demat form of issue of initial public offers of new issues is made compulsory. This is made compulsory for all companies, so as to encourage demat form of trading through electronic book entry system.

To develop the debt market, in collaboration with the RBI, a committee was appointed, as per the SEBI announcement early in February 2000. The SEBI also announced that

Registrars of new issues under I.P.O. could also undertake the depository functions for those issues.

Some of the Reforms in the primary market were referred to earlier in this book. The major reforms relate to registration and enforcement of a code of conduct on all the intermediaries in the market, extension of regulation to UTI along with all mutual funds in the private and public sectors and to Money Market Mutual Funds which were so far regulated by the RBI and enforcement of all regulations on venture capital funds on par with all mutual funds and on FIIs and FFIs along with the powers exercised by the RBI under the FERMA. Even credit rating Agencies are brought under the Guidelines of the SEBI.

New issues under IPOs are brought compulsorily under the fold of Demat form of allotment in some cases. The SEBI has successfully reduced the time gap for allotment of new issues to 30 days and enforced stricter surveillance on end use of funds raised through public offer, reduced the malpractices in the new issue market, such as price rigging and insider trading etc. The problems of bad delivery, and delays in transfer of shares odd lots etc. were solve by making the trading as well as transfers in demat form of electronic book entry.

3.3 Depositories

The Indian Capital Markets were notorious for their outdated ways of doing business. It was a major relief when NSE and BSE had introduced on line trading that transformed the trading from scream based to screen based. But the clumsy procedures of handling share certificates and the recurring problem of bad deliveries made life horrendous not for just an amateur investor but even for a professional broker. With the paper work nightmare looming large, securities business was never a pleasant job. That's till; the new method of holding stocks in the electronic form was introduced in 1996. The new system called a depository was put in place to hold stocks of all companies in electronic form on behalf of the investors and maintain a record of all "buy" and "sell" transactions.

Technology had made it possible to provide bank like ease and convenience. As it alleviated the hardships associated with handling physical stocks, investors experiencing the relief, have begun to slowly come back to the stock markets. Investing in stocks has now become much more convenient and safe.

The organization responsible for holding and handling securities on behalf of investors is known as a Depository. It caters to both large and small investors through a network of intermediaries called Depository Participants or DPs for short. It works more like a bank for securities where you can open a securities account, deposit all your stocks, withdraw your securities and instruct it to deliver or receive stocks on your behalf.

Depository is a technology driven electronic storage system. It completely does away with cumbersome paper work relating to share certificates, transfer forms etc., involved in securities business. It caters to investor's transactions with greater speed, efficiency and ease as it deals with all stocks in just a book entry mode and not in their physical form.

Well-developed capital markets all over the world have depositories. In India, National Securities Depository Limited (NSDL) as a joint venture between IDBI, UTI and the National Stock Exchange has set up the first depository. The second depository has been set up by Central Depository Services Limited (CDSL), which was promoted by the Bombay Stock Exchange and Bank of India. Both the depositories have a network of Depository Participants (DPs) who are electronically connected to the depository and serve as contact points with the investors. Before we say more about depositories, let's have a quick look at some of the common terms used.

3.3.1 Depositories - Glossary

Depository: A depository like a bank, safe keeps your securities in electronic form. Besides holding securities, it provides various services related to transactions in securities

Dematerialization: Dematerialization or Demat for short, is a process where securities held by you in physical form are cancelled and credited to your DP account in the form of electronic balances.

NSDL: NSDL stands for the National Securities Depository Limited, which is the first, and the largest depository presently operational in India. It is promoted by IDBI, UTI and NSE.

CDSL: CDSL or the Central Depository services Limited is the second Depository, which was permitted by SEBI to commence operations. CDSL is promoted by Bombay Stock Exchange and Bank of India.

Depository Participant (DP): A depository participant is an intermediary between the investor and the Depository who is authorized to maintain your accounts of dematerialized shares. Presently only financial institutions, banks, custodians, clearing corporations, stockbrokers and non-banking finance companies are permitted to become DPs. You can choose any of them as your DP. You can also have accounts with more than one DP like you may have accounts with more than one bank.

Book Entry Segment: For the stocks traded in the exchange, there are two segments. One is the physical segment where trades are settled by the physical delivery of stocks and the other is the book entry segment where trades are settled by making book

entries in the electronically kept securities accounts with the Depositories. Normally in the physical segment, the same security is priced somewhat at a discount to the price it commands in the book entry segment. Book entry segment offers a complete counter party settlement guarantee for every trade.

Rolling Settlement: In the book entry segment, the settlements are done not weekly but on rolling basis. Each day's trades are settled keeping a gap between a trade and its settlement, of a specified number of working days, which at present is two working days after the trading day. The waiting period is uniform for all trades. The pay in and pay out of securities is done electronically on the same day. Hence the entire settlement process is completed much faster than in the physical segment.

3.3.2 Advantages of holding shares in demat form

There are several compelling advantages for keeping your shares in the demat form:

- First and foremost, you don't have to chase errant brokers to rectify cases of bad deliveries, company objections or fake, forged or stolen shares.
- No tedious correspondence with the Registrars for transfer of shares in your name. The depository itself would do all transfers instantly.
- Your cost of transactions would be less, as you don't have to pay for the stamp duty on transfer of shares. As there are no bad deliveries, you need not waste time and money unlike in physical segment where shares keep coming back to the seller due to Company Objections. You would save expenses associated with notarization and follow up.
- Even the brokerage you pay is less if you are buying or selling shares in demat form. Brokers have no fear of bad delivery on selling dematerialized shares, so they would offer their services at reduced rates of brokerage.
- You will be rid of the hassles in handling and safekeeping volumes of paper. The pay in and pay out of securities is done electronically without the physical movement of paper.
- No nightmares like loss, theft, mutilation or forgery of share certificates.

For convenience, there is nothing like demat holding. It offers you a host of possibilities just like a bank account does. You can convert your physical stock into electronic form (Dematerialization) or reconvert electronic holdings into physical certificates (Rematerialization), transfer your shares to some other account and ensure settlement of all your trades through a single account by simply giving the necessary instructions to your Depository Participant.

You can even pledge or hypothecate your dematerialized securities to avail loans, receive electronic credit for all shares you applied for in a public issue and get your non-cash corporate benefits like bonus or rights as a book entry credit to your account.

Demat holding is now becoming more of a rule than an option. SEBI had made it compulsory for all categories of investors to settle trades in demat form with respect to a select

list of scrips since Jan 4th, 1999. Presently, investors trading in these scrips would necessarily need a depository account to settle their trades.

Table: Progress of Dematerialization - NSDL & CDSL

Parameters of Progress	NSDL		CDSL	
	March 04	March 05	March 04	March 05
Companies - Agreement signed	5216	5536	4810	5068
Companies - Available for Demat	5212	5536	4810	5068
Market Cap. Of Companies Available (Rs. bn.)	11071	16383	1064	1210
Number of Depository Participants	214	216	200	532
Number of DP Locations	1719	2819	219	1530
No. of Investor Accounts	5203393	6300723	629159	1005772
Demat Quantity (mn.)	83694	128663	14010	19080
Demat Value (Rs. bn.)	9662	14477	1064	1210

Source: SEBI

There has been resistance however from certain quarters to SEBI efforts to progressively making it compulsory for companies to get into the demat mode. They argue that SEBI is rushing into this without giving much of a thought to how retail investors in far away locations would avail demat services.

But any reform would initially have its opponents. The benefits of demat holding far out weigh the initial hiccups the system may be presently experiencing. In the beginning of electronic holdings, demat shares suffered from lack of liquidity, but the opposite is the case now. The regulatory authority has a responsibility to give a strong direction to usher in necessary reforms so that the business would move towards paperless markets. If it doesn't happen, market players would take their own time to adjust to any new system.

Today, most of the DPs offering services to retail investors have large network of branches across the country reaching out to even far-flung areas. As interest in demat holdings catches up, DPs would spread their wings even wider to reach remote locations at much faster pace. This would trigger a process of capital markets integration like it had happened when NSE started on-line trading - now there's hardly any city or town in India, which does not boast of an online NSE terminal.

There is a second objection raised to the demat holding. Investors have to pay a custody charge for the demat holdings which is an extra cost as he was not incurring any expenses if he himself safe keeps the certificates in his storage cabinets.

True, this is an extra cost, but what about the extra benefits and savings he would

enjoy in a demat mode? To clearly weigh the benefits and costs, we need to look at the overall picture.

As against settlement costs and custodial charges you have to incur in demat holding, you will save on stamp duty and transaction costs. This is not to speak of your reduced risk in holding stocks in electronic form. Table given below indicates how the savings out weigh costs if you were a long-term investor holding your stocks worth Rs.10,000 for five years without any transactions:

Particulars	Physical (Rs.)	Demat (NSDL) (Rs.)	Savings (Rs.)
Brokerage	75-100	50-75	25-50
Stamp Duty	50	-----	50
Postal Charges	10-30	-----	10-30
Company Objection (Courier etc.)	10-30	-----	10-30
Settlement Charges		5-10	(5-10)
Custody (5 years)		10-15	(10-50)
Total			35-100

Source: NSDL

The savings are positive even when you decide to sell your stocks worth Rs.10,000:

Particulars	Physical (Rs.)	Demat (NSDL) (Rs.)	Savings (Rs.)
Brokerage	75-100	50-75	25-50
Company Objection (Courier etc.)	10-30	-----	10-30
Settlement Charges		(5-10)	(5-10)
Total			25-70

Source: NSDL

The benefits of demat holding are significant if you were buying and selling very often as the following table reveals.

Particulars	Physical (Rs.)	Demat (NSDL) (Rs.)	Savings (Rs.)
Brokerage	750-1000	500-750	250-500
Settlement Charges		50-100	(50-100)
Custody		2-10	(2-10)
Total			140-390

Source: NSDL

Apart from savings in the transaction costs, you would also save on expenses in running a back office for handling physical paper. And the account statement would give you a ready record of all your transactions, which you can use for income tax purposes.

Savings for an investor who turns over his portfolio worth Rs.10,000 ten times in a year.

There are other apparent advantages in keeping your stocks in demat form. Let's consider them:

- You can get lower interest charges for loans taken against demat shares as banks would find it safe and convenient to deal with demat shares than physical stocks.
- When your physical shares are lost, destroyed or mutilated you need to spend up to Rs.500 to get duplicate shares. No such hassles in demat holding.
- If you are holding physical stocks of several companies and your address changes, you need to write to all the companies informing them about change of address. In demat account; you need to inform only your DP.

3.3.3 How does the demat system work?

The operations of demat holding is simple to understand if you compare your DP to a bank and your demat account to your regular savings bank account. Here is a ready reckoner to explain how it works.

Keep in mind, you cannot presently dematerialize all your physical stocks. Shares of only those companies, which have been registered either with NSDL or CDSL for participation, can be dematerialize. The good news is that most of the active scrips in the market including all the scrips of S&P CNX NIFTY and BSE SENSEX have already joined either of the depositories and the list is continuously expanding.

Once you ascertain that the shares you hold can be dematerialized, you should choose a DP with whom you want to open an account.

Fill up an account opening form and execute the necessary documentation (a simple application form, PAN card details, a photograph and a power of attorney to act on your behalf).

Hand over your share certificates to your DP along with a dematerialization request form. Make sure that before the shares are handed over, you mark them "submitted for dematerialization" on the face of the certificates.

Remember, like a bank account you can open more than one DP account if you so wish. You can even open a DP account with a nil balance.

Once you hand over your physical stocks, your DP sends them to the Company concerned for dematerialization. The process of converting your shares into electronic form takes presently about 15-30 days depending on the size of the lot submitted for demat.

Your demat shares, unlike your physical certificates, will not have any distinctive or certificate numbers. These shares are fungible. Fungibility means that 100 shares of a security are

the same as any other 100 shares of that security (just like in case of money, where one Rs.100 note is equivalent and exchangeable with another Rs.100 note).

If you have odd lot shares, you can dematerialize them too. In the demat mode, you can also trade in odd lots as the marketable lot is just "one" share.

Apart from the physical stocks, which you readily possess, you can also dematerialize the shares you sent for transfer or the shares you applied for in a public offer. In case of shares sent for transfer, you only need to send a demat request along with the shares to the Registrar and Transfer Agent who will register the shares in your name in the demat form. As regards the shares you apply for in a public offer, you need to simply tick the appropriate box in the share application itself that you want to receive them in the demat mode and give details of your DP - the shares on allotment would automatically be credited to your demat account.

For any reason, you want to covert your demat shares back to physical form, you have to simply give a request and send it to the depository through your DP. The depository after verifying balances to your credit would convert your holdings into physical stock and dispatch the certificates to you. You may get differently numbered folios and certificate numbers, however.

How do you trade in case of shares that are dematerialized? Presently many stock exchanges have established electronic connectivity with the depositories to facilitate settlement. Five of the connected stock exchanges - NSE, CSE, DSE and BSE have different trading segments - one for the physical and the other for demat segment. Additionally, NSE and BSE have two sub segments in the depository segment - viz., market lot (AE at NSE and BE at BSE) and odd lot (BE at NSE and BO at BSE). The stock exchanges, which are yet to establish connectivity with the depositories at present, have only the physical segment. They cannot trade in shares in electronic form. Where shares are traded in the exclusive demat segments, settlement is done on rolling basis i.e., trades done every day are settled after a fixed number of days. Presently it is T+2, which means that trades are settled on the second working day from the date of trade.

When you want to sell your shares in demat form - what all you need to do is, instead of delivering physical shares to the broker, you instruct your DP to debit your account with the number of shares sold by you and credit your broker's clearing account. This delivery instruction has to be given to your DP in a standardized format available with your DP. Let's look at the activities involved:

- You sell shares in the stock exchanges linked to the depositories through a broker of your choice.
- You instruct your DP for debit of your account, and credit of your broker's clearing member pool account.
- On the pay in day, your broker gives instruction to his DP for delivery to clearing corporation of the relevant stock exchange.

- Your broker receives payment from the clearing corporation and pays you for shares sold in the same manner as in the physical mode.

When you want to buy shares in the demat form - the activity flow is similar to what you do in the normal physical segment with some minor changes.

- You place a buy order on your broker to buy shares in demat mode.
- Your broker executes the order.
- You make payment to your broker.
- Your broker arranges payment to clearing corporation.
- Your broker receives credit in his clearing account with his DP on the pay out day.
- He gives instructions to his DP to debit his clearing account and credit your client's account.
- You instruct your DP to receive credit in your account.
- If the instructions match, your account with your DP is credited with the number of shares you bought.

The important point here is - since the stock exchanges connected to depositories have two separate trading segments one for physical and the other for demat shares - you can not deliver physical shares to meet your obligations in demat segment or vice versa (but since last year, investors have been allowed to deliver dematerialized shares in the physical segment of only those stock exchanges that are connected to the depositories).

Moreover, in respect of a select basket of scrips all investors have to compulsorily settle their trades only in demat segment. It is expected that this number will be increased further to cover all actively traded securities. This compulsion is however applicable only to those stock exchanges which have established electronic connectivity with the depositories.

When you are holding shares in the demat form - all the benefits accruing to your shares in stock form (bonus shares) can be directly credited to your DP account while benefits in cash form like dividend and interest will be disbursed by the Registrar.

When you avail loans against your shares and want to pledge your holdings as a security, the process is very simple in the demat mode. You will also get loans at a better terms as banks may charge lower interest rates, give larger loans (Rs.20 lakhs as against Rs.10 lakhs limit for physical shares) and insist on smaller margins (25% against 50% in case of loan against physical securities). The process for creating a pledge is outlined below:

- Both you, as the borrower and the bank as the lender must have depository accounts.
- You should create the pledge by submitting a prescribed form to your DP.
- Your DP would confirm the pledge created on the securities.
- The securities remain pledged until the lender informs the DP about repayment of loan and requests for cancellation of the pledge.

When you are holding shares in electronic form, you would receive the account statement at periodic intervals with details of your current balances and the various transactions you have carried out through your depository account. You can also request for a statement at any time you wish before its normal due date. Once you receive the statement, you should check for any discrepancies. If you find any, you should immediately notify your DP and if not resolved then the depository. As a matter of precaution, depositories also send statements directly to the account holders picked at random. If you notice any differences in your balances in your account as indicated by your DP and the one sent by the depository, you should immediately clarify the matter with your DP and the depository concerned.

The demat systems are made near foolproof with multiple levels of back up. It is much safer way to hold your securities than in physical form. Though no transaction can be effected in your account without your explicit authorization, as matter of precaution, if you are away for a long time, you should freeze your account to receive only credits and not debits.

3.3.4 How to choose the right DP?

As more and more scrips are getting into the compulsory demat mode, thousands of investors across the country are scrambling to open DP accounts to get their shares dematerialized as otherwise they might find it difficult to sell them at the best prices prevailing in the market. Triggering the rush is the marketing blitz launched by major DPs to woo as many clients as possible. Some of the DPs are unmindful of their own limited resources to handle this business. Demat business needs certain infrastructure to efficiently handle this new and complex system of trading.

Presently, there are more than 500 DPs run by banks, brokers and financial services companies in the market. Do all these DPs give the best services? Apart from costs, what are the aspects you should be careful about while dealing with your DP? Here is a checklist:

- The first point is to check which depository your DP is participating in. Right now, two depositories - the National Securities Depository (NSDL) and the Central Depository Services (CDSL) are offering their services. NSDL had a head start, caters to a larger number of scrips and has established systems and procedures in place. CDSL, the new entrant is still grappling with some teething problems, but charges cheaper tariff for demat services. NSDL currently has 216 registered DPs and is linked to over 5536 companies with total market capitalization of Rs.16383 bn. CDSL has about 532 registered DPs and so far signed up with about 5068 companies with total market capitalization of Rs.1210 bn.

Table: Service Charges levied by the Depositories (March, 2005)

Depositories Services	NSDL	CDSL
Dematerialization	Nil	Nil
Re-materialization	Rs.10 per certificate	Rs.10 per certificate
Custody	Rs.6 per ISIN per annum	Nil
Settlement	Rs.8 per debit instruction	0.01% of the transaction value subject to a minimum of Rs.5 and a maximum of Rs.12 per debit instruction;
	Nil for credit instruction	Nil for credit instruction
Pledge Creation	Rs.25 per instruction	Rs.12 per instruction
Pledge Closure	Nil	Rs.12 per instruction
Pledge Invocation	Nil	Nil
Securities Borrowing	Rs.25 per instruction	Not available

Source: NSDL & CDSL

- In the demat business there are two levels of charges. One is what the Depository charges the DP, and the other is what the DP charges you. As what DP charges to you are directly dependent on what it has to pay to the Depository, it's important to know which Depository's tariff is cheaper. Currently CDSL tariff is cheaper as it does not charge a custodial fee nor a fee for dematerializing the shares as NSDL does. Though charges do matter, if you are a frequent traded and have large holdings, you should carefully check many other factors.

- More critical than charges, is the level of service. While most of the DPs steadfastly vouch for offering the best of services, check what's their previous experience in handling this type of business. Successful track record in running Custodial services or Share registry business can be the right background for getting into DP services.

- Check whether the DP has a dedicated Client service unit and whether it's adequately staffed to handle the number of queries from account holders who are still unaccustomed to these operations. The business of most DPs has increased manifold, but not many had increased the headcount of people handling the front and back offices.

- Does your DP have streamlined processes to securely handle your account? Like in case of a bank, a DP deals with your financial assets in a book entry form. Any wrong entries occurring either as a result of a genuine mistake or a premeditated fraud can cause severe financial losses. Issue of pre-printed delivery instruction slips with clients name and identification number, insistence of written and not

faxed instructions are some of the basic things a DP must do to safeguard your interests.

- Is your DP conveniently located to receive your instructions? Many banks offer the unsuspecting account holders? Check how frequently your DP sends you the account statements - SEBI prescribes that it should be at least once in a quarter if there is no trading activity and weekly, if there are regular transactions. Check if the DP charges any thing extra to give you account statement on special request - which is a very common hidden charge most DPs levy.

3.4 Stock Exchanges

"Stock Exchange means any body or individuals whether incorporated or not, constituted for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities." It is an association of member brokers for the purpose of self-regulation and protecting the interests of its members. With the stock exchanges becoming corporate bodies with demutualisation the control and ownership will be in different hands. The above definition will change accordingly.

It can operate only if it is recognized by the Government under the Securities Contracts (Regulation) Act, 1956. The recognition is granted under Section 3 of the Act by the Central Government, Ministry of Finance.

The powers of the Central Government under the Act are far reaching and include the following in particular:

- Grant and withdrawal of recognition, approval or change of byelaws.
- Call for periodical returns from the Stock Exchange.
- Direct enquiries on the members or on the Stock Exchange.
- Liability of the Exchange to submit annual reports.
- Directing the Stock Exchange to make certain rules.
- Supersedes the Governing Board of the Exchange.
- Suspend the Governing Board of the Exchange.
- Impose any other conditions or regulations for trading.

Byelaws: Besides the above Act, the Securities Contracts (Regulation) Rules were also made in 1957 to regulate certain matters relating to trading on the Stock Exchanges. There are also byelaws of the Exchanges, which are concerned with the following subjects - opening/closing of the stock exchanges, administration timing of trading, regulation of blank transfers, control of the settlement and other activities of the Stock Exchange, fixation of margins, fixation of market prices or making up prices, regulation of taravani business (jobbing), etc., regulation of brokers' trading, brokerage charges, trading rules on the Exchange, arbitration and settlement of disputes, settlement and clearing of the trading etc.

3.4.1 Regulation of Stock Exchange

The Securities Contracts (Regulation) Act is the basis for operations of the stock exchanges in India. No exchange can operate legally without the government permission or recognition. Stock exchanges are given monopoly in certain areas under Section 19 of the above Act to ensure that the control and regulation are facilitated. Recognition can be granted to a stock exchange provided certain conditions are satisfied and the necessary information is supplied to the government. Recognition can also be withdrawn, if necessary. Where there are no stock exchanges, the government can license some of the brokers (licensed dealers) to perform the functions of a stock exchange in its absence.

3.4.2 Recognition by Government

As referred to earlier, a Stock Exchange is recognized only after the government is satisfied that its Rules and Byelaws conform to the conditions prescribed for ensuring fair dealings and protection to investors. Government has also to be satisfied that it would be in the interest of the trade and public interest to grant such recognition. Mumbai, Calcutta, Delhi, Chennai, Ahmadabad, Hyderabad, Bangalore, Indore etc. have so far been granted permanent recognition. Others are granted temporary recognition from time to time.

The rules of a recognized stock exchange relating in general to the constitution of the Exchange, the powers of management of its governing body and its constitution (including the appointment thereon of not more than three government nominees), the admission of members, the qualifications for membership, the expulsion, suspension and readmission of members, the registration of partnerships and the appointment of authorized representatives and clerks must be duly approved by Government. These rules can be amended, varied or rescinded only with the previous approval of government. Likewise, the byelaws of the recognized exchanges providing in detail for the regulation and control of contracts in securities and for every aspect of the trading activities of members must also be sanctioned by government and any amendments or modifications must be similarly approved. Government's authorities extends much further to make or amend any rules of byelaws of a recognized stock exchange, if it so considers desirable in the interest of trade and in public interest.

The Act empowered the government with even more drastic powers - the power to make enquiries into the affairs of a recognized stock exchange and its members, to supersede the governing body and take over the property or a recognized exchange, to suspend its business, and lastly, to withdraw the recognition granted to an exchange should such steps be deemed indispensable in the interest of trade and in public interest. Government has thus complete control over the recognized stock exchanges.

3.4.3 Licensed Dealers

The recognized stock exchanges are the media through which government regulation of the stock market is made effective. Where there are no stock exchanges, the Securities

Contracts (Regulation) Act, 1956 empowers government to license dealers in securities and prescribe the conditions subject to which they can carry on the business of dealing in securities. These licensed dealers are now operating for OTCEI and NSE.

3.4.4 Securities Contracts (Regulation) Rules, 1957

Under the Act, government has promulgated the Securities Contracts (Regulation) Rules, 1957 for carrying into effect the objects of the legislation. These rules provide, among other things, for the procedure to be followed for recognition of stock exchanges; submission of periodical returns and annual reports by recognized stock exchanges; inquiry into the affairs of recognized stock exchanges and their members; and requirements for listing of securities. The rules are statutory and they constitute a code of standardized regulations uniformly applicable to all the recognized stock exchanges.

3.4.5 Present Recognized Stock Exchanges

At present, there are 23 stock exchanges recognized under the Securities Contracts (Regulation) Act, 1956. They are located at Bombay, Calcutta, Madras, Delhi, Ahmedabad, Hyderabad, Indore, Bhwaneshwar, Mangalore, Patna, Bangalore, Rajkot, Guwahati, Jaipur, Kanpur, Ludhiana, Baroda Cochin, and Pune. The latest recognized stock exchanges are at Coimbatore and Meerut. Visakhapatnam Stock Exchange was recognized in 1996 for electronic trading. A stock exchange has also been set up at Gangtok, Sikkim early in 1986. No recognition has been sought for this body as the jurisdiction of the Securities Contracts (Regulation) Act, 1956 has not so far been extended to the areas covered by the State. A decade ago, there were hardly 8 stock exchanges in the country. There is no trading, however, in many of these stock exchanges.

The names of the stock exchanges are given below:

1. Ahmedabad Stock Exchange
2. Banglore Stock Exchange
3. Bhubaneswar Stock Exchange
4. Bombay Stock Exchange
5. Calcutta Stock Exchange
6. Cochin Stock Exchange
7. Coimbatore Stock Exchange
8. Delhi Stock Exchange
9. Guwahati Stock Exchange
10. Hyderabad Stock Exchange
11. Indore Stock Exchange
12. Jaipur Stock Exchange
13. Kanpur Stock Exchange
14. Ludhiana Stock Exchange
15. Madras Stock Exchange
16. Magadh Stock Exchange
17. Managlore Stock Exchange
18. Pune Stock Exchange
19. Saurashtra Stock Exchange
20. Vadodhara Stock Exchange
21. N S E
22. OTCEI
23. Inter Connected Stock Exchange

Stock exchanges normally function between 10:00 a.m. and 3:45 p.m. on the working days.

3.4.6 Demutualisation of Stock Exchanges

What is Demutualisation? It is dissociation of ownership from control and Regulation of Stock Market operations. The Stock Exchanges are self-regulatory organizations, owned and regulated by the member brokers themselves. Traditionally, the control and ownership rested with the same member brokers. But in India OTCEI set up in 1992 and NSE in 1994 made the first attempt at Demutualisation. Banks, FIs and other agencies other than member brokers own both these stock exchanges. BSE has now chosen to become a corporate unit.

3.4.6.1 Advantages of Demutualisation

Firstly, the interests of public and investors can be taken care of better by the vesting of control and regulation in a separate agency other than the trading members. Secondly, professionalism in Management is possible when non-trading public owns it. Thirdly, the derivative markets can be controlled and regulated better by professionals and experts. Fourthly, the larger funds needed by the Stock Exchanges for infrastructure development and electronic trading can be better accessed from the Capital Market and the public.

3.4.6.2 Disadvantages of Demutualisation

Firstly, if it is owned by the public profit motive and the return on investment become paramount concerns, which is not good for regulation. Secondly, it dilutes the regulatory authority given to Stock Exchanges, which are SROs, under Article 226 of the constitution. Sometimes the volumes go down and the capacity utilization of the Stock Exchange infrastructure will be poor leading to poor return on investment. Lastly, in India demutualisation may not be needed as the competition from the ATS and ECNs (Alternative trading system and Electronic trading) would not be there, as the matching of Buy and Sell orders in the broker firms is not allowed by SEBI.

3.4.7 Bombay Stock Exchange (BSE)

The Stock Exchange, Bombay, which was established in 1875 as The Native Share and Stockbrokers' Association, is the oldest Stock Exchange in Asia, even older than the Tokyo Stock Exchange, which was founded in 1878. The Bombay Stock Exchange is the premier stock exchange in India. It was the first to be recognized on a permanent basis in 1957. The capital listed in Mumbai accounted for about 40% of the overall capital listed on all the stock exchanges whereas its share of the market capitalization amounted to around 90%. In terms of the total number of companies and total number of stock issues listed also, Mumbai ranked first.

The Bombay Stock Exchange regularly publishes statistics on market turnover of securities though similar figures for the other exchanges are now available with the SEBI. It is, however, roughly estimated that the turnover of Bombay Stock Exchange is about 30% of the overall turnover of all the stock exchanges in the country and NSE accounts for more than 40% of the total all India figure, in recent years.

3.4.7.1 Trading System at BSE

Till Now, buyers and sellers used to negotiate face-to-face on the trading floor over a security until agreement was reached and a deal was struck in the open outcry system of trading, that used to take place in the trading ring. The transaction details of the account period (called settlement period) were submitted for settlement by members after each trading session.

The computerized settlement system initiated the netting and clearing process by providing on a daily basis statements for each member, showing matched and unmatched transactions. Settlement processing involves computation of each member's net position in each security, after taking into account all transactions for the member during the settlement period, which was different for different groups of securities.

Now members and their authorized assistants do the trading from their Trader Work Stations (TWS) in their offices, through the BSE On-Line Trading (BOLT) system. BOLT system has replaced the open out cry system of trading. BOLT system accepts two-way quotations from jobbers, market and limit orders from client-brokers and matches them according to the matching logic specified in the Business Requirement Specifications (BRS) document for this system.

3.4.8 National Stock Exchange (NSE)

IDBI and other all India Financial Institutions in Mumbai set up the National Stock Exchange in November 1992 with a paid up equity of Rs.25 crores. The Government in the same year recognized it and the Exchange started operations in wholesale Debt market in June 1994 and in equity trading in Nov 1994. The wholesale debt market or the money market segments would cater to banks, FIs, etc. to encourage high value transactions in PSU bonds, UTI Units, Treasury Bills, Government Securities and call Money. There is no trading floor of the exchange. Trading is in large volumes and over the telephone, telex etc. Trading is done on computer with the help of PC Terminals in broker offices. The Capital market segment is also traded similarly on computer based trading. The settlement is on T + 2 basis for equity trading.

Benefits accrued to both issuers of securities and investors. As this is screen based trading with a national network, transparency and cost effectiveness are ensured. Besides, the investment counters can be spread wide in the country under the NSE electronic network.

3.4.8.1 Evolution of NSE

A high-powered study Group on the Establishment of New Stock Exchanges under the Chairmanship of Shri M. J. Pherwani has submitted its Report in June 1991. This Study Group has recommended some criteria for setting up of new Stock Exchanges and favored the licensing of additional trading floors (ATF) instead of multiplying the number of Stock Exchanges in the country.

The Study Group has also recommended the setting up of a model National Stock Exchange at Navi Mumbai (NSE), which will develop the National Market System in the country. Any infrastructure in terms of space, Tele-communications, Computerization, On-line processing system, Library, Research facilities, Publicity Dept, etc. are all recommended for the "National Market" to be set up by NSE.

The market will have two types of members, viz., participating trading members, who can only trade on their behalf and intermediary trading members (dealers) who can deal on behalf of their clients. Trading members will have computer terminals connecting to the other trading members (PTM) and to the central computer system at the NSE. Trading orders to buy and sell securities or to borrow and lend are entered into the computer system and stocked in its memory in an order book. Trading being order driven, it will be matched with a matching counter order. If matched, both the buyer and seller are informed by the NSE computer system. By the end of the trading day, the Exchange System will give out rates and a list of completed transactions for each trading member.

The characteristics of National Market System are as follows:

- Completely automated system in terms of both trading and settlement procedures to be provided through the Securities Facilities Support Corporation.
- Compulsory market makers/jobbers to provide liquidity and ready market (in the form of Principal Trading Members, i.e., PTM).
- The members are large Corporate and Institutional members and Professionals, drawn from various parts of the country and to represent the professionals on an All India Basis.
- Only large and medium size companies and PSUs are listed on this Exchange and it will complement the existing Exchanges.
- The NSE would have a separate trading facility and time allotted for debt instruments in order to have the beneficial effect of creating an active secondary market in debt instruments particularly of Government debt.

3.4.8.2 Genesis

The Government accepted the above recommendations and accordingly NSE was set up and recognized by the Government. NSE is a technology driven exchange. NSE has set up its trading system as a nation-wide, fully automated screen based trading system. Its objective is to be a world-class exchange and use it as an instrument of change for the industry as a whole. NSE was incorporated in 1992 and was given recognition as a stock exchange in April 1993. It started operations in June 1994, with trading on the Whole sale Debt Market Segment. Subsequently it launched the Capital Market Segment in November 1994 as a trading platform for equities and the Futures and Options Segment in June 2000 for various derivative instruments.

NSE was set up with the objectives of:

- Establishing a nationwide trading facility for all types of securities;
- Ensuring equal access to investors all over the country through an appropriate communication network;
- Providing a fair, efficient and transparent securities market using electronic trading system;
- Enabling shorter settlement cycles and book entry settlements; and
- Meeting the international benchmarks and standards.

NSE has been able to take the stock market to the doorsteps of the investors. The technology has been harnessed to deliver the services to the investors across the country at the cheapest possible cost. It provides nation-wide screen-based automated trading system with a high degree of transparency and equal access to investors irrespective of geographical location. The high level of information dissemination through on-line system has helped in integrating retail investors on a nation-wide basis. The standards set by the exchange in terms of market practices, products, technology and service standards have become industry benchmarks and are being replicated by other market participants.

Within a very short span of time, NSE has been able to achieve all the objectives for which it was set up. It has been playing a leading role as a change agent in transforming the Indian Capital Markets to its present form.

For over a decade it has been playing the role of a catalytic agent in reforming the markets in terms of market microstructure and in evolving the best market practices keeping in mind the stakeholders. The Exchange is set up on a demutualised model wherein the ownership, management and trading rights are in the hands of three different sets of people. This has completely eliminated any conflict of interest. This has helped NSE to aggressively pursue policies and practices within a public interest framework. NSE's nationwide, automated trading system has helped in shifting the trading platform from the trading hall in the premises of the exchange to the computer terminals at the premises of the trading members located at different geographical locations in the country and subsequently to the personal computers in the homes of investors and even to hand held portable devices for the mobile investors. It has been encouraging corporatization of membership in securities market. It has also proved to be instrumental in ushering in scrip-less trading and providing settlement guarantee for all trades executed on the Exchange. Settlement risks have also been eliminated with NSE's innovative endeavors in the area of clearing and settlement viz., establishment of the clearing corporation (NSCCL), setting up a settlement guarantee fund (SGF), reduction of settlement cycle, implementing on-line, real-time risk management systems, dematerialisation and electronic transfer of securities to name few of them. In order to take care of investor's interest, it has also created an investors protection fund that would help investors who have incurred financial damages due to default of brokers.

Table: Comparison of the NSE Model and the International Models of Demutualised Stock Exchanges

Comparators	International Model	NSE Model
Legal Structure	Company	Company
For Profit/ Not for Profit	For Profit Company	For Profit Company
Ownership Structure	Owned by Shareholders which includes brokers.	Owned by Shareholders which are financial institutions which also have broking firms as subsidiaries.
Listing	Several stock exchanges are listed on themselves after Initial Public Offer.	Not a listed company. No Initial Public Offer made.
Ceiling on shareholding	Mostly 5% of voting rights for a single shareholder	No ceiling
Segregation of ownership, trading rights and management	These are segregated. To become a member of the demutualised stock exchange, it is not necessary to own a share in the company. Thus, members may or may not be shareholders and members who own shares may sell off their trading rights and all shareholders are not necessarily members.	These are segregated. The trading rights and ownership are segregated. The broking firms are not shareholders.
Board Structure	The Governing Board comprises of directors who are elected by shareholders. Some of the directors are brokers but majority do not have stock broking background.	The Board comprises of representatives of shareholders, academics, chartered accountants, legal experts etc. Of these, 3 directors are nominated by SEBI and 3 directors are public representatives approved by SEBI.
Fiscal benefits	As mutual entities, stock exchanges enjoyed fiscal benefits prior to	NSE was set up as a demutualised for profit company and is taxed.

	demutualisation, but when converted into for profit companies these are taxed.	So the question of fiscal benefit prior to demutualisation does not arise.
Transfer of assets	Assets were transferred from the mutual entity to the for - profit demutualised company and shares were given to the members in lieu of the ownership in the old entity. There was no cash consideration paid. Since an Initial Public Offer (IPO) was also made in many cases, the valuation of the shares were done by the market and no separate valuation exercise was required as for example in the case of LSE where a bonus issue was made.	The question of transfer of assets did not arise because the institutions set up NSE as a demutualised company itself.
Enactment of legislation to give effect to demutualisation	In several countries a separate legislation was necessary as in the case of Australia, Hong Kong, Toronto and Singapore. In several others no legislation was necessary as in the case of UK.	Not applicable as NSE was set up as a demutualised company.

Source: Report of the SEBI Group on Corporatisation and Demutualisation of Stock Exchanges.

3.4.8.3 Achievements/Milestones

Month/Year	Event
November 1992	Incorporation.
April 1993	Recognition as a stock exchange.
June 1994	WDM segment goes live.
November 1994	CM segment goes live.
March 1995	Establishment of Investor Grievance Cell.
April 1995	Establishment of NSCCL, the first Clearing Corporation.

July 1995	Establishment of Investor Protection Fund.
October 1995	Became largest stock exchange in the country.
April 1996	Commencement of clearing and settlement by NSCCL.
April 1996	Launch of S&P CNX Nifty.
June 1996	Establishment of Settlement Guarantee Fund.
November 1996	Setting up of National Securities Depository Ltd., first depository in India, co-promoted by NSE.
November 1996	'Best IT Usage' award by Computer Society of India.
December 1996	Commencement of trading/settlement in dematerialized securities.
December 1996	Dataquest award for 'Top IT User'.
December 1996	Launch of CNX Nifty Junior.
November 1997	'Best IT Usage' award by Computer Society of India.
May 1998	Promotion of joint venture, India Index Services & Products Limited (IISL).
May 1998	Launch of NSE's Web-site: www.nseindia.com
July 1998	Launch of 'NSE's Certification Programme in Financial Markets' (NCFM).
August 1998	'CYBER CORPORATE OF THE YEAR 1998' award.
April 1999	'CHIP Web Award' by CHIP magazine.
October 1999	Setting up of NSE.IT Ltd.
January 2000	Launch of NSE Research Initiative.
February 2000	Internet Trading in CM segment.
June 2000	Commencement of Derivatives Trading (in Index Futures).
September 2000	Launch of Zero Coupon Yield Curve.
June 2001	Commencement of Trading in Index Options.
July 2001	Commencement of Trading in Options on Individual Securities.
November 2001	Commencement of Trading in Futures on individual Securities.
December 2001	Launch of 'NSE-VAR' system for Government Securities.
January 2002	Launch of Exchange Traded Funds (ETFs).
May 2002	NSE wins the Wharton-Infosys business Transformation Award in the organization-wide transformation category.
October 2002	Launch of Government Securities Index.
August 2003	Launch of Futures and Options on CNX IT Index.
August 2004	Launch of NSE electronic interface for listed companies.
June 2005	Launch of Futures & Options in BANK Nifty Index.

Table: Market Segments - Selected Indicators

Segment	At end of March 2006			2005-06
	No. of Members	No. of Securities /Contracts Available	Market Capitalization (Rs. crore)	Trading Value (Rs. crore)
CM	933	929	2,813,200	1,569,557
WDM	68	3,177	1,567,574	475,524
F&O	767	9,123	–	4,824,250
Total	940	13,229	4,380,774	6,869,250

Table: List of Cities and VSATs at the end of March 2006

State/UTs	List of Towns and Cities	Total No. of Cities	Total No. of VSATs
Andhra Pradesh	Amalapuram, Anantapur, Ankapalle, Bhimavaram, Chirala, Cuddapah, Eluru, Gujuwaka, Gudiwada, Guntur, Hindupur, *Hyderabad, Kakinada, Kukatpally, Kurnool, Narsapur, Nellore, Ongole, Palakol, Iduguralla, Proddatur, Rajamundry, Secundarabad, Srikakulam, Tadepalligudem, Tadipatri, Tanuku, Tenali, Tirupathi, Vijayawada, Vizag, Vizianagaram, Warangal, Madanpalle, Chilakaluripeta	35	181
Assam	*Guwahati, Silchar	2	5
Bihar	Begudarai, Bhagalpur, Gaya, Muzzaffarpur, *Patna, Sitamarhi, Chhapra	7	23
Chhattisgarh	Bilaspur, Korba, Raipur	3	13
Delhi	*Delhi	1	500
Goa	Panaji, Mapusa, Margao	3	7
Gujarat	*Ahmedabad, Anand, *Baroda, Bharuch, Bhavnagar, Bhuj, Botad, Dahod, Dhoraji, Dhrangadhra, Gandhidham, Gandhinagar, Jamnagar, Junagadh, Kadi, Mehsana, Morbi, Nadiad, Navsari, Patan, Petlad, Porabander, *Rajkot, Surajkaradi, Savarkundla, Surat, Surendranagar, Una, Unjha, Valsad, Vapi, Veraval, Visnagar, Keshod, Kheda	35	194
Haryana	Ambala, Bahadurgarh, Bhiwani, Fatehabad, Faridabad, Ganaur, Gohana, Gurgaon, Hissar, Jagadhri, Jind, Kaithal, Karnal, Kurukshetra, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonepat, Yamuna Nagar, Tohana	22	102

Himachal Pradesh	Shimla	1	1
Jammu & Kashmir	Jammu, Srinagar	2	9
Jharkhand	Bokaro Steel City, Dhanbad, Giridih, Ranchi, Bhaga, Jamshedpur	6	24
Karnataka	Arsikere, *Bangalore, Bellary, Challakere, Hassan, Hubli, Kumta, *Mangalore, Manipal, Mysore, Sagar, Shimoga, Udupi, Chitradurga	14	93
Kerala	Alleppey, Angamaly, Calicut, Ernakulam, Guruvaryur, Irinjalakuda, Kannur, Kasargod, *Kochi, Kodungallore, Kollam, Kottayam, Mavelikara, Kottarkara, Muvattupuzha, Pala, Palakad, Pathanamthitta, Thalassery, Thiruvalla, Thrissur, Thodupuzha, Thiruvananthapuram (Trivandrum)	23	90
Madhya Pradesh	Bhilai, Bhopal, Gwalior, *Indore, Jabalpur, Katni, Nagda, Neemuch, Ratlam, Satna, Chhindwada, Chhatarpur, Sidhi, Ujjain	14	73
Maharashtra	Ahmednagar, Akola, Amravati, Ichalkaranji, Jalgaon, Kolhapur, Kopargaon, *Mumbai, Nagpur, Nashik, *Pune, Satara, Solapur	13	622
Manipur	Imphal	1	1
Orissa	*Bhubaneshwar, Berhampur, Cuttack, Rourkela, Jeypore, Jaraka	6	10
Punjab	Amritsar, Bathinda, Budhlada, Chandigarh, Fazilka, Hoshiyarpur, Jalandhar, Khanna, *Ludhiana, Mansa, Moga, Mohali, Muktasar, Nabha, Pathankot, Patiala, Barnala, Abohar, Kotkapura, Batala, Gurdaspur, Kapurthala, Sunam, Rampuraphul, Faridkot	25	105
Rajasthan	Ajmer, Alwar, Bharatpur, Bhilwara, Bikaner, Falna, *Jaipur, Jodhpur, Kota, Udaipur, Sujangarh, Makrana, Nokha, Pratapgarh, Beawar, Salasar, Sadarsahar, Sri Ganganagar, Dungarpur, Kankroli	20	132
Tamil Nadu	*Chennai, *Coimbatore, Erode, Karaikal, Karaikudi, Karur, Kumbakonam, Madurai, Nagercoil, Namakkal, Neyveli, Salem, Sivakasi, Thanjavur, Tirunelveli, Trichy, Tuticorin, Hosur, Vellore, Gobichettipalayam, Gudiyatham, Dharapuram, Pollachi, Thiruvannamalai	24	170
Tripura	Agartala	1	1

Union Territory	Pondicherry	1	2
Uttar Pradesh	Agra, Aligarh, Allahabad, Bahraich, Banda, Bareilly, Chandausi, Gorakhphur, Ghaziabad, Jhansi, Kurja, *Kanpur, Lucknow, Mathura, Meerut, Moradabad, Muzzafararnagar, Najibabad, Modinagar, Rishikesh, Roorkee, Renukoot, Saharanpur, Varanasi, Bulandshar, Shahjahanpur, Kashipur, Hapur, Rampur, Mussoorie, Sahibabad, Haldwani, Khatauli, Baghpat, Sambhal, Mirzapur	36	179
Uttaranchal	Dehradun, Haridwar, Nainital, Rudrapur, Ramnagar, Sitarganj	6	14
West Bengal	Asansol, *Kolkatta, Siliguri, Durgapur, Purulia, Jalpaiguri, Raniganj, Paschim Medinipur, Coochbehar, Burdwan	10	218
Total		**311**	**2,769**

***Indicates cities, which have a Regional Stock Exchange.**

3.4.8.4 Ownership and Management

The NSE is owned by a set of leading financial institutions, banks, insurance companies and other financial intermediaries. Professionals, who do not directly or indirectly trade on the Exchange, manage it. The trading rights are with trading members who offer their services to the investors. The Board of NSE comprises of senior executives from promoter institutions and eminent professionals, without having any representation from trading members.

While the Board deals with the broad policy issues, the Executive Committees (ECs), which include trading members, formed under the Articles of Association and the Rules of NSE for different market segments, set out rules and parameters to manage the day-to-day affairs of the Exchange. The ECs have constituted several committees, like Committee on Trade Related Issues (COTI), Committee on Settlement Issues (COSI) etc., comprising mostly of trading members, to receive inputs from the market participants and implement suggestions which are in the best interest of the investors and the market. The day-to-day management of the Exchange is delegated to the Managing Director and CEO who is supported by a team of professional staff. Therefore, though the role of trading members at NSE is to the extent of providing only trading services to the investors, the Exchange involves trading members in the process of consultation and participation in vital inputs towards decision-making.

Table: Shareholders of NSEIL	
Industrial Development Bank of India Limited	IL & FS Trust Company Limited
Industrial Finance Corporation of India Limited	Stock Holding Corporation of India Limited
Life Insurance Corporation of India	SBI Capital Markets Limited
State Bank of India	Bank of Baroda
ICICI Bank Limited	United Insurance Company Limited
Canara Bank	Punjab National Bank
General Insurance Corporation of India	Oriental Bank of Commerce
National Insurance Company Limited	Corporation Bank
The New India Assurance Company Limited	Indian Bank
The Oriental Insurance Company Limited	Union Bank of India
Infrastructure Development Finance Company Limited	The Administrator of the specified Undertaking of Unit Trust of India

3.4.8.5 NSE Family

NSCCL: National Securities Clearing Corporation Ltd. (NSCCL), a wholly owned subsidiary of NSE, was set up in August 1995. It was the first clearing corporation in the country to provide novation/settlement guarantee that revolutionized the entire concept of settlement system in India. It commenced clearing operations in April 1996. It has been set up to bring and sustain confidence in clearing and settlement of securities; to promote and maintain short and consistent settlement cycles; to provide counter-party risk guarantee, and to operate a tight risk containment system. It carries out the clearing and settlement of the trades executed in the equities and derivatives segments of the NSE. It operates a well-defined settlement cycle and there are no deviations or deferments from this cycle. It aggregates trades over a trading period T, nets the positions to determine the liabilities of members and ensures movement of funds and securities to meet respective liabilities. It also operates Subsidiary General Ledger (SGL) for settling trades in government securities for its constituents. It has been managing clearing and settlement functions since its inception without a single failure or clubbing of settlements. It assumes the counter-party risk of each member and guarantees financial settlement. It also undertakes settlement of transactions on other stock exchanges like the Over the Counter Exchange of India. It operates Mutual Fund Service System to clear and settle purchase and redemption of mutual fund units for individual investors. It has tied up with 12 Clearing Banks for funds settlement while it has direct connectivity with depositories for settlement of securities. It has also initiated a working capital facility in association with the clearing banks that helps clearing members to meet their working capital requirements. Any clearing bank interested in utilizing this facility has to enter into an agreement with NSCCL and with the clearing member.

NSCCL has also introduced the facility of direct payout to clients' account on both the depositories. It ascertains from each clearing member, the beneficiary account details of their respective clients who are due to receive pay out of securities. It has provided its members with a front-end for creating the file through which the information is provided to NSCCL. Based on the information received from members, it sends payout instructions to the depositories, so that the client receives the pay out of securities directly to their accounts on the payout day.

NSCCL currently settles trades under T+2 rolling settlement. It has the credit of continuously upgrading the clearing and settlement procedures and has also brought Indian financial markets in line with international markets. It has put in place online real-time monitoring and surveillance system to keep track of the trading and clearing members' outstanding positions and each member is allowed to trade/operate within the pre-set limits fixed according to the funds available with the Exchange on behalf of the member. The online surveillance mechanism also generates various alerts/reports on any price/volume movements of securities not in line with the trends/patterns.

IISL: India Index Services and Products Limited (IISL), a joint venture of NSE and Credit Rating Information Services of India Limited (CRISIL), was set up in May 1998 to provide indices and index services. It has a consulting and licensing agreement with Standard and Poor's (S&P), the world's leading provider of investible equity indices, for co-branding equity indices. IISL is India's first specialized company focusing upon the index as a core product. It provides a broad range of services, products and professional index services. It maintains over 70 equity indices comprising broad-based benchmark indices, sectoral indices and customized indices. Many investment and risk management products based on IISL indices have developed in the recent past, within India and abroad. These include index-based derivatives on NSE and on Singapore Exchange, a number of index funds and India's first exchange traded fund.

NSDL: Prior to trading in a dematerialized environment, settlement of trades required moving the securities physically from the seller to the ultimate buyer, through the seller's broker and buyer's broker, which involved lot of time and the risk of delay somewhere along the chain. Further, the system of transfer of ownership was grossly inefficient as every transfer involved physical movement of paper to the issuer for registration, with the change of ownership being evidenced by an endorsement on the security certificate. In many cases, the process of transfer took much longer than stipulated in the then regulations. Theft, forgery, mutilation of certificates and other irregularities were rampant. All these added to the costs and delays in settlement, restricted liquidity. To obviate these problems, NSE to promote dematerialization of securities joined hands with UTI and IDBI to set up the first depository in India called the "National Securities Depository Limited" (NSDL). The depository system gained quick acceptance and in a very short span of time it was able to achieve the objective of eradicating the paper from the trading and settlement of securities, and was also able to get rid of the risks associated with fake/forged/stolen/bad paper. Dematerialized delivery today constitutes almost 100% of total of the total delivery based settlement.

NSE.IT: NSE.IT Limited, a 100% technology subsidiary of NSE, was incorporated in October 1999 to provide thrust to NSE's technology edge, concomitant with its overall goal of harnessing latest technology for optimum business use. It provides the securities industry with technology that ensures transparency and efficiency in the trading, clearing and risk management systems. Additionally, NSE.IT provides consultancy services in the areas of data warehousing, internet and business continuity plans. Amongst various products launched by NSE.IT are NEAT XS, a Computer-To-Computer Link (CTCL) order routing system, NEAT iXS, an internet trading system and Probos, professional broker's back office system. NSE.IT also offers an e-learning portal, finvarsity (www.finvarsity.com) dedicated to the finance sector. Enlitor - a learning management system developed by NSE.IT jointly with an e-learning partner, powers the site. New initiatives include payment gateways, products for derivatives segments and Enterprise Management Services.

NCDEX: NSE joined hand with other financial institutions in India viz., ICICI Bank, NABARD, LIC, PNB, CRISIL, Canara Bank and IIFCO to promote the NCDEX which provides for a world class commodity exchange platform for Market Participants to trade in wide spectrum of commodity derivatives. Currently NCDEX facilitates trading of 44 agro-based commodities, 4 base metals, 2 precious metals, 2 energy products and 2 ferrous metals.

3.4.9 Interconnected Stock Exchange

The Inter-connected Stock Exchange of India Limited was promoted by 15 Regional Stock Exchanges and Federation of Indian Stock Exchanges. It was incorporated as a public limited company under Section 12 of the Companies Act in January 1998. Its registered location is at International Infotech Park, 7th Tower, 5th Floor, Vashi Railway Complex, Sector 30A, Vashi, Navi Mumbai 400 705.

Its paid up capital or the project cost is Rs.15 crores, which is covered by the contribution of Rs.1 crores from each of the participating member in the form of admission fee of Rs.5 lakhs and Infrastructure fee of Rs.95 lakhs. The following participating exchanges paid the Initial Capital:

1. Bangalore Stock Exchange
2. Bhuwaneshwar Stock Exchange
3. Cochin Stock Exchange
4. Coimbatore Stock Exchange
5. Gawahati Stock Exchange
6. Hyderabad Stock Exchange
7. Jaipur Stock Exchange
8. Ludhiana Stock Exchange
9. Madhya Pradesh (Indore) Stock Exchange
10. Madras Stock Exchange
11. Magadh (Patna) Stock Exchange
12. Mangalore Stock Exchange
13. Uttar Pradesh (Kanpur) Stock Exchange

14. Saurashtra Kutch (Rajkot) Stock Exchange
15. Vadodara Stock Exchange

ISE has got the SEBI approval under Section 4 of S.C. (R) Act in November 1998. The SEBI laid down the conditions of a minimum Base Capital of Rs.2 lakh to being with by members to be raised to Rs.4 lakh by the end of one year. The participating exchanges will have a uniform trading and settlement cycle of Thursday to Wednesday, which is the actual cycle adopted by the ISE. Besides, the ISE has set up a settlement guarantee fund to guarantee payouts. Additionally every participating exchange is required to maintain with ISE, a Settlement Stabilization Fund of Rs.10 lakhs to meet any temporary exigencies at the time of pay in so that there is no delay in declaration of payout.

ISE provides a national market system where in a trading member of one Stock Exchange can deal with a trading member of another exchange from his local Trader Work Station (TWS). Through the Inter-connected market system, ISE provides for trading, clearing and settlement along with surveillance and Risk Management to the inter-connected trading system. It has got SEBI's clearance to start trading in Nov. 1998 but it has started training of members and stock trading sessions in the early months of 1999.

The basic aim of the Inter-connected Market System (ICMS), which ISE sets up, is to consolidate the small fragmented and less liquid markets into a national level market, with the state of art infrastructure and systems support. It will create a level playing ground for all participating exchanges, reduce transactions costs, and promote liquidity and volumes, necessary for survival of regional Stock Exchanges. Advantages of Members of ISEs:

- Increase in the business and earnings.
- Increase in liquidity in shares that they trade in.
- Appreciation in the value of membership at the participating exchange.
- Greater Safeguards against defaults, bad deliveries, and frauds, etc.
- Long-term strategy to survive in the face of competition from the big National Exchanges like NSE and BSE.
- Creation of efficient and orderly market.
- Establish transparency in dealings and improves the price discovery process.
- Creates a level playing ground for all the participating exchanges and provides a larger ground to play to member brokers of RSEs.
- The possibility of expansion to remote rural and semi-urban areas as expansion of retail investor business.

3.5 Stock Price Indices

Traditionally, indices have been used as information sources. By looking at an index, we know how the market is faring. In recent years, indexes have come to the forefront owing to direct applications in finance in the form of index funds and index derivatives. Hedging using index derivatives has become a central part of risk management in the

modern economy.

An index is a number that measures the change in a set of values over a period of time. A stock index represents the change in value of a set of stocks, which constitute the index. More specifically, a stock index number is the current relative value of a weighted average of the prices of a pre-defined group of equities. It is a relative value because it is expressed relative to the weighted average of prices at some arbitrarily chosen starting date or base period. The starting value or base of the index is usually set to a number such as 100 or 1000. For example, the base value of the Nifty was set to 1000 on the start date of November 3, 1995.

A good stock market index is one, which captures the behavior of the overall equity market. It should represent the market, it should be well diversified and yet highly liquid. Movements of the index should represent the returns obtained by "typical" portfolios in the country. A market index is very important for its use

- As a barometer for market behavior,
- As a benchmark portfolio performance,
- As an underlying in derivative instruments like index futures, and
- In passive fund management by index funds

3.5.1 Economic Significance of Index Movements

How do we interpret index movements? What do these movements mean? They reflect the changing expectations of the stock market about future dividends of the corporate sector. The index goes up if the stock market thinks that the prospective dividends in the future will be better than previously thought. When the prospect of dividends in the future becomes pessimistic, the index drops. The ideal index gives us instant readings about how the stock market perceives the future of corporate sector.

Every stock price moves for two possible reasons:

- News about the company (e.g. a product launch, or the closure of a factory)
- "News about the country (e.g. nuclear bombs, or a budget announcement)

The job of an index is to purely capture the second part, the movements of the stock market as a whole (i.e. news about the country). This is achieved by averaging. Each stock contains a mixture of two elements - stock news and index news. When we take an average of returns on many stocks, the individual stock news tends to cancel out and the only thing left is news that is common to all stocks. The news that is common to all stocks is news about the economy. That is what a good index captures. The correct method of averaging is that of taking a weighted average, giving each stock a weight proportional to its market capitalization.

Example: Suppose an index contains two stocks, A and B. A has a market capitalization of Rs.1000 crore and B has a market capitalization of Rs.3000 crore. Then we attach a weight of 1/4 to movements in A and 3/4 to movements in B.

3.5.2 Index Construction

A good index is a trade-off between diversification and liquidity. A well-diversified index is more representative of the market/economy. However there are diminishing returns to diversification. Going from 10 stocks to 20 stocks gives a sharp reduction in risk. Going from 50 stocks to 100 stocks gives very little reduction in risk. Going beyond 100 stocks gives almost zero reduction in risk. Hence, there is little to gain by diversifying beyond a point. The more serious problem lies in the stocks that we take into an index when it is broadened. If the stock is illiquid, the observed prices yield contaminated information and actually worsen an index.

3.5.2.1 Types of Indices

Most of the commonly followed stock market indexes are of the following two types: Market capitalization weighted index or price-weighted index. In a market capitalization weighted index, each stock in the index affects the index value in proportion to the market value of all shares outstanding. A price-weighted index is one that gives a weight to each stock that is proportional to its stock price. Indexes can also be equally weighted. Recently, major indices in the world like the S&P 500 and the FTSE-100 have shifted to a new method of index calculation called the "Free float" method. We take a look at a few methods of index calculation.

1. Price Weighted Index: In a price-weighted index each stock is given a weight proportional to its stock price. Table below gives an example of how a price-weighted index is calculated.

Table: Price weighted index calculation

In the example below we see that Grasim Inds and Telco have a similar weighted irrespective of the number of outstanding shares. In a price-weighted index, a small capitalization form could have a much higher weightage than a much larger firm if the small capitalization firm had a high stock price but relatively few outstanding shares. In the present example the base index = 1000 and the index value works out to be 1049.56.

Index = (2970.20/2829.75) x 1000 = 1049.56

Company	Share price at time 0 (Rs.)	Share price at time 1 (Rs.)
Grasim Inds	351.55	340.50
Telco	329.10	350.30
SBI	274.60	280.40
Wipro	1335.25	1428.75
Bajaj	539.25	570.25

Total	**2829.75**	**2970.20**

2. Equally Weighted Index: As the name suggests, in an equally weighted index all the components have similar weightage irrespective of their price or their market capitalization. Table below gives an example of how an equally weighted index is calculated.

Table: Equally weighted index calculation

In the example below we can see that Grasim Inds and Wipro have a similar weightage irrespective of their share price and number of outstanding shares. In the present example the base index = 1000 and the index value works out to be 1036.21

Index = (340.50/351.75) + (350.30/329.10) + (280.40/274.60) + (1428.75/1335.25) + (570.25/539.25) x 1000 = 1036.21
5

Company	Share price at time 0 (Rs.)	(Rs.) Share price at time 1 (Rs.)
Grasim Inds	351.55	340.50
Telco	329.10	350.30
SBI	274.60	280.40
Wipro	1335.25	1428.75
Bajaj	539.25	570.25
Total	**2829.75**	**2970.20**

3. Market Capitalization Weighted Index: In this type of index, the equity price is weighted by the market capitalization of the company (share price * number of outstanding shares). Hence each constituent stock in the index affects the index value in proportion to the market value of all the outstanding shares. Table below gives an example of how market capitalization weighted index is calculated.

In the market capitalization weighted method,
Index = (Current market capitalization/ Base market capitalization) x Base value
Where:
Current market capitalization = Sum of (current market price * outstanding shares) of all securities in the index.

Base market capitalization = Sum of (market price * issue size) of all securities as on base date.

Table 3: Market capitalization weighted index calculation

In the example below we can see that each stock affects the index value in proportion to the market value of all the outstanding shares. In the present example, the base index = 1000 and the index value works out to be 1002.60

Index = (7330566.20/7311383.40) x 1000 = 1002.62

Company	Current Market capitalization	Base Market capitalization
Grasim Inds	1,668,791.10	1,654,247.50
Telco	872,686.30	860,018.25
SBI	1,452,587.65	1,465,218.80
Wipro	2,675,613.30	2,669,339.55
Bajaj	660,887.85	662,559.30
Total	**7,330,566.20**	**7,311,383.40**

3.5.3 Desirable Attributes of an Index

A good market index should have three attributes:

- It should capture the behavior of a large variety of different portfolios in the market.
- The stocks included in the index should be highly liquid.
- It should be professionally maintained.

3.5.3.1 Capturing Behavior of Portfolios

A good market index should accurately reflect the behavior of the overall market as well as of different portfolios. This is achieved by diversification in such a manner that a portfolio is not vulnerable to any individual stock or industry risk. A well-diversified index is more representative of the market. However there are diminishing returns from diversification. There is very little gain by diversifying beyond a point. The more serious problem lies in the stocks that are included in the index when it is diversified. We end up including illiquid stocks, which actually worsens the index. Since an illiquid stock does not reflect the current price behavior of the market, its inclusion in index results in an index, which reflects, delayed or stale price behavior rather than current price behavior of the market.

3.5.3.2 Including Liquid Stocks

Liquidity is much more than trading frequency. It is about ability to transact at a price, which is very close to the current market price. For example, a stock is considered liquid if one can buy some shares at around Rs.320.05 and sell at around Rs. 319.95, when the market price is ruling at Rs.320. A liquid stock has very tight bid-ask spread.

3.5.3.3 Maintaining Professionally

It is now clear that an index should contain as many stocks with as little impact cost as possible. This necessarily means that the same set of stocks would not satisfy these criteria at all times. A good index methodology must therefore incorporate a steady pace of change in the index set. It is crucial that such changes are made at a steady pace. It is very healthy to make a few changes every year, each of which is small and does not dramatically alter the character of the index. On a regular basis, the index set should be reviewed, and brought in line with the current state of market. To meet the application needs of users, a time series of the index should be available.

3.5.4 Issue size change in an Index security

Index value should remain constant even if the issue size and issue price changes on account of corporate action or change in composition of the index.

Index Value (I) = {Market Capitalization (M)/ Base Capitalization (B)}   Initial Index Value (IIV)

Change in Market Capitalization (M) = *Change in Issue Size   Issue Price

Index should not move with change in issue size. Therefore
I = {(M + M)/(B + B)}   IIV
  B + B = (M + M)   (IIV/ I)
  B + B = M   IIV/ I + M   IIV/ I
  B + B = B + M   IIV/ I

New Base Capitalization = Old Base Capitalization + M   IIV/ I
Or
Change in Base Capitalization (B) = M   IIV/ I

> **Example:** On April 5, the total market capitalization of S&P CNX Nifty is Rs. 197500 crore and base capitalization is Rs. 195000 crore. It is decided to replace Scrip A, a constituent of S&P CNX Nifty having a market capitalization of Rs. 1000 crore with scrip B that has a market capitalization of Rs. 900 crore with effect from April 6. What is the revised base capitalization of the S&P CNX Nifty on April 6?

IIV = 1000
M= 197500
B =195000
I = 197500/195000 = 1012.8205
 M = 1000-900= -100
New Base Capitalization = 195000 + (-100   1000)/1012.8205
New Base Capitalization = 194901
Hence Index Value = 197400/194901 = 1012.8205

3.5.5 Differences between the Indices

The indices are different from each other to a certain extent. Some times the Sensex may move up by 100 points but NSE Nifty may move up only 40 points. The main factors that differentiate one index from the other are given below.

- The number of the component stocks
- The composition of the stocks
- The weights

3.5.5.1 The Number of the Component Stocks

The number of stocks in an index influences its capability of reflecting the market movement. The Sensex has 30 scrips like the Dow Jones Industrial Average in the US. At the same time BSE-100 (National), BSE-200, the Dollex, (dollar equivalent of BSE-200), the RBI Index (338 stocks) and Nifty (50 stocks) are also widely used. Private organizations like CRISIL has constructed its own index and named it as CRISIL - 500. From the above examples it is clear that the number of scrips differs from one index to another and hence their movements also vary. BSE National Index is considered to be more representative than Sensex because it has 100 stocks.

3.5.5.2 The Composition of the Stocks

The composition of the stocks in the index should reflect the market movement as well as the macro economic changes. The Center for Monitoring Indian Economy maintains an index. It often changes the composition of the index so as to reflect the market movements in a better manner. Some of the scrip's traded volume may fall down and at the same time some other stock may attract the market interest should be dropped and others must be added. Only then, the index would become more representative. In 1993, sensex dropped one company and added another. In August 1996 sensex was thoroughly revamped. Half of the scrips was changed. The composition of the Nifty was changed in April 1996 and 1998. Crisils 500 was changed in November 1996. In October 1998 the Nifty Junior Index composition has been changed. Recognizing the importance of the information technology scrips, they are included in the index.

3.5.5.3 The Weights

The weight assigned to each company's scrip also influences the movement of the index. The indices may be weighted with the price or value. The Dow Jones Industrial Average and Nikkei Stock Average of 225 scrips to Tokyo stock exchange are weighted with the price. Adding the current prices of the stocks in the stock exchange and dividing the sum by the total number of stocks compute a weighted index. The stocks with high price influence the index more than the low priced stock in the sample. The number of stocks is usually adjusted for any stock splits, bonus and right issues.

In the value weighted index the total market value of the share (the number of outstanding shares multiplied by the current market price) is the weight. Most of the indices all over the world and in India except Economic Times Ordinary Share Index are weighted with the value. The scrip influences the index in proportion to its importance in the market. If the price changes occur in scrip with heavy market capitalization, it dominates the changes that occur in the index. The price changes caused by bonus issue or right of particular scrip are reflected in the index. With the bonus issue or right issue the number of outstanding shares and their values used to change.

In an un-weighted index, all stocks carry equal weights. The price or market volume of the scrip does not affect the index. The movement of the price is based on the percentage change in the average price of the stocks in the particular index. Here it assumes that equal amount of money is invested in each of the stocks in the index. Value Line Average in the US is calculated without weights but geometric mean is used in the computation instead of arithmetic mean.

3.5.5.4 Base Year

The choice of base year also leads to variations among the index. In the various indices the base year differs from each other. The base year should be free from any unnatural fluctuations in the market. If the base year in close to the current year, the index would be more effective in reflecting the changes in the market movement. At the same time if it is too close, the investor cannot make historical comparison. The Sensex has the base year as 1978-79 and the next oldest one is the RBI index of ordinary shares with 1980-81 as base year.

Let's make an attempt to understand major stock market indices.

3.5.6 The BSE Sensitive Index (SENSEX)

The BSE Sensitive index has long been known as the barometer of the daily temperature of Indian bourses. In 1978-79 stock market contained only private sector companies and they were mostly geared to commodity production. Hence, a sample 30 was drawn from them. With the passage of time more and more companies private as well as public came into the market.

Even though the number of scrips in the Sensex basket remained the same 30, representations were given to new industrial sectors such as services, telecom, consumer goods, auto sector, etc., the continuity and integrity of the index are kept intact, so that a comparison of the current market condition with those of a decade ago is made easy and any distortion in the market analysis is avoided. The criteria adopted in the selection of 30 scrips are listed further.

3.5.6.1 Industry Representation

The index should be able to capture the macro-industrial situation through price movements of individual scrips. The company's scrip should reflect the present state of the industry such as ACC in the Sensex is a representative of the cement industry. The logic here is that ACC reflects the fortunes of the cement industry that in turn is discounted by the market in the scrip's pricing. Care is taken in selecting scrips across all the major industries to make the index act as a real barometer to the economy.

3.5.6.2 Market Capitalization

The market capitalization of the stock indicates the true value of the stock, as the outstanding number of shares is multiplied by the price. Price indicates the demand and growth potential for the stock. The outstanding shares depend on the equity base. The selected scrip should have a wide equity base too.

3.5.6.3 Liquidity

The liquidity factor is based on the average number of deals of a scrip. The average number of deals in the two previous years is taken into account. The trading volumes can find out the market fancy for the share. The Financial Express Equity Index is weighted by trading volume and not by market capitalization.

3.5.6.4 The Market Depth

The market depth factor is the average deal as a percentage of company's shares outstanding. The market depth depends upon the wide equity base. If the equity base were broad based then number of deals in the market would increase. For example, Reliance Industries has a wide equity base and larger number of outstanding shares.

3.5.6.5 Floating Stock Depth

The floating stock depth factor is the average number of deals as a percentage of floating stock. Low floating stock may get overpriced because the simple law of demand and supply apply here. For example, MRF with its low floating stock is able to command high price. Its sound finance and internal generation of funds led growth may be the reason for the low flotation. Though the public holding is fairly high at around 40 per cent due to small equity of Rs. 4.24 Cr, the free float of the company stock is low.

Trading volumes are directly linked to the public holding in the equity of the company. Wide public holding is a pre-requisite for high trading volume. Reliance Industries is a good example. The free float of company is 45 per cent and it has its positive effect on the trading volume.

Composition of SENSEX

Infosys Technology	Bajaj Auto
Reliance Industries	BHEL
ICICI Bank	Wipro
Bharti Airtel	Tata Steel
ITC	NTPC
L&T	Grasim Industries
HDFC	Gujarat Ambuja Cement
ONGC	Hindalco
Reliance Communication	Cipla
Satyam Computers	ACC
SBI	Maruti Udyog
Tata Consultancy	Ranbaxy Lab.
HDFC Bank	Dr. Reddy's
HLL	Reliance Energy
Tata Motors	Hero Honda

3.5.7 The S&P CNX Nifty

This index is built by India Index Services Product Ltd (IISL and Credit Rating Information Services of India Ltd. (CRISIL). The CRISIL has a strategic alliance with Standard and Poor Rating Services. Hence, the index is named as S & P CNX Nifty. NSE - 50 Index Nifty was introduced on April 22,1996 with the following objectives:

- Reflecting market movement more accurately
- Providing fund managers a tool for measuring portfolio returns vis-à-vis market return
- Serving as a basis for introducing index based derivatives

Nifty replaced the earlier NSE - 100 Index, which was established as an interim measure till the time the automated trading system stabilized. To make the process of building an index as interactive and user driven as possible an index committee was appointed. The composition of the committee is structured to represent stock exchanges, mutual fund managers and academicians. To reflect the dynamic changes in the capital market, the index set is reduced and modified by the index committee based on certain predetermined entry and exit criteria.

Composition of NIFTY

Reliance Industries	M&M
ONGC	Siemens
Bharti Airtel	Sun Pharma
Infosys Technology	Cipla
Tata Consultancy	Gujarat Ambuja Cement
Wipro	ACC
Reliance Communication	Hindalco
ICICI Bank	ABB
ITC	National Aluminium
SBI	Hero Honda
BHEL	Punjab National Bank
SAIL	Ranbaxy Lab.
L&T	Zee Entertainment
HLL	BPCL
HDFC	Dr. Reddy's
Tata Motors	Tata Power
HDFC Bank	Reliance Energy
Satyam Computers	VSNL
Suzlon Energy	GlaxoSmith Pharma
Bajaj Auto	HPCL
Maruti Udyog	MTNL
Tata Steel	Dabur (I)
GAIL (I)	IPCL
Grasim Industries	Jet Airways
HCL Technologies	Oriental Bank

S&P CNX Nifty is based upon solid economic research. A trillion calculations were expended to evolve the rules inside the S&P CNX Nifty index. The results of this work are remarkably simple:

- The correct size to use is 50,
- Stocks considered for the S&P CNX Nifty must be liquid by the 'impact cost' criterion,
- The largest 50 stocks that meet the criterion go into the Index.

S&P CNX Nifty is a contrast to the adhoc methods that have gone into index construction in the preceding years, where indices were made out of intuition and lacked a scientific basis. The research that led up to S&P CNX Nifty is well respected internationally as a pioneering effort in better understanding how to make a stock market index. The selection criteria are the market capitalization and liquidity. The selection criterion for the index was applied to the entire universe of securities admitted on NSE. Thus, the sample set covers a large number of industry groups and includes equities of more than 900 companies.

3.5.7.1 Liquidity (Impact Cost)

Here the liquidity is defined as the cost of executing a transaction in security in proportion to the weight age of its market capitalization as against the index market capitalization at any point of time. This is calculated by finding out the percentage mark up suffered while buying/selling the desired quantity of security compared to its price (best buy + best sell)/2. Impact cost for selling price also can be calculated.

Market impact cost is a measure of the liquidity of the market. It reflects the costs faced when actually trading an index. For a stock to qualify for possible inclusion into the Nifty, it has to have market impact cost of below 0.75% when doing Nifty trades of half a crore rupees. The market impact cost on a trade of Rs.5 million of the full Nifty works out to be about 0.2%. This means that if Nifty is at 1000, a buy order goes through at 1002, i.e.1000+(1000*0.002) and a sell order gets 998, i.e. 1000-(1000*0.002).

Example: Given the order book for a security, compute the impact cost to buy 1500 shares of the security.
Order Book

Buy Quantity	Buy Price	Sell Price	Sell Quantity
1000	98.00	99.00	1000
2000	97.00	100.00	1500
1000	96.00	101.00	1000

Impact cost to buy 1500 shares
Ideal Price: (98.00 +99.00)/2 = 98.50
Actual Buy Price = (1000 99.00+500 100.00)/1500
= 99.33
Impact Cost
={(Actual Price - Ideal Price)/ Ideal Price} 100
Impact cost to buy 1500 shares
= {(99.33 - 98.50) / 98.50} 100 = 0.84%.

3.5.7.2 Base Period

The base period of the S & P CNX Nifty Index is the closing prices on November 3, 1995. The base period is selected to commensurate the completion of one year operation of NSE in the stock market. The base value of index is fixed at 1000 with the base capital of Rs.2.06 of trillion.

Its unique features are:

- S & P CNX Nifty provides an effective hedge against risk. The effectiveness of hedging was compared with several portfolios that consist of small-cap, mid-

cap and large-cap companies and found to be higher.

- The index represents more than 50 percent of the total market capitalization.
- The impact cost of S & P CNX Nifty portfolio is less compared with other portfolios.
- Nifty index is chosen for derivatives trading.

The S&P CNX Nifty is an index based upon solid economic research. It was designed not only as a barometer of market movement but also to be a foundation of the new world of financial products based on the index like index futures, index options and index funds. A trillion calculations were expended to evolve the rules inside the S&P CNX Nifty index. The results of this work are remarkably simple: (a) the correct size to use is 50, (b) stocks considered for the S&P CNX Nifty must be liquid by the 'impact cost' criterion, (c) the largest 50 stocks that meet the criterion go into the index.

S&P CNX Nifty is a contrast to the adhoc methods that have gone into index construction in the preceding years, where indexes were made out of intuition and lacked a scientific basis. The research that led up to S&P CNX Nifty is well-respected internationally as a pioneering effort in better understanding how to make a stock market index.

The Nifty is uniquely equipped as an index for the index derivatives market owing to its (a) low market impact cost and (b) high hedging effectiveness. The good diversification of Nifty generates low initial margin requirement. Finally, Nifty is calculated using NSE prices, the most liquid exchange in India, thus making it easier to do arbitrage for index derivatives.

Box: The S&P CNX Nifty

3.5.7.3 How does S&P CNX Nifty compare with other Indices?
The S&P CNX Nifty is favorable on various parameters.

Diversification: S&P CNX Nifty is a more diversified index, accurately reflecting overall market conditions. The reward-to-risk ratio of S&P CNX Nifty is higher than other leading indices, making it a more attractive portfolio hence offering similar returns, but at lesser risk.

Liquidity: The 'liquidity ratio' is defined as trading volume over one year divided by, market capitalization today. Nifty's liquidity ratio during the last one year is approx. 105%, which is high compared to other indices.

Hedging Effectiveness: The basic risk of Nifty futures will be lower owing to the superior liquidity of Nifty stocks and of NSE. Nifty has higher correlations with typical portfolios in India as compared to any other index. These two factors imply that hedging using Nifty futures will be superior.

Governance: A professional team at IISL, a company setup by NSE and CRISIL manages S&P CNX Nifty. There is a three-tier governance structure comprising the board of directors of IISL, the Index Policy Committee, and the Index Maintenance Sub-committee. S&P CNX Nifty has fully articulated and professionally implemented rules governing index revision, corporate actions, etc. These rules are carefully thought out, under Indian conditions, to dovetail with operational issues of index funds and index arbitrageurs. The extent of manipulation related to S&P CNX Nifty is minimized due to the following reasons:

- The index levels are calculated from a highly liquid exchange with superior surveillance procedures,
- S&P CNX Nifty has a large market capitalization so the consequence (upon the index) of a given move in an individual stock price is smaller, and
- S&P CNX Nifty calculation intrinsically requires liquidity in proportion to market capitalization, thus avoiding weak links, which a manipulator can attack.

Users of the S&P CNX Nifty benefit from the research that is possible owing to the long time-series available: both S&P CNX Nifty and S&P CNX Nifty Total Returns Index series are observed from July 1990 and November 1995 onwards respectively. Solid economic research and three most respected institutions back S&P CNX Nifty: NSE, CRISIL and S&P.

3.5.7.4 Siblings

S&P CNX Defty: S&P CNX Defty is S&P CNX Nifty, measured in US dollar terms. If the S&P CNX Nifty rises by 2% it means that the Indian stock market rose by 2%; measured in rupees. If the S&P CNX Defty rises by 2%, it means that the Indian stock market rose by 2%, measured in US dollars. The S&P CNX Defty is calculated in real time. Data for the S&P CNX Nifty and the dollar-rupee note is absorbed in real time, and used to calculate the S&P CNX Defty in real time. When there is currency volatility, the S&P CNX Defty is an ideal device for a foreign investor to know where he stands, even intra-day.

S&P CNX 500: The S&P CNX 500 is India's first broad-based benchmark of the Indian capital market. The S&P CNX 500 represents about 93% of total market capitalization and about 94% of the total turnover on the NSE. The S&P CNX 500 companies are disaggregated into 72 industries, each of which has an index - The S&P CNX Industry Index. Industry weight ages in the index dynamically reflect the industry weight ages in the market. So for e.g. if the banking sector has a 5% weight age among the universe of stocks on the NSE, banking stocks in the index would have an approx. representation of 5% in the index. The S&P CNX 500 is a market capitalization weighted index. The base date for the index is the calendar year 1994 with the base index value being

1000. Companies in the index are selected based on their market capitalization, industry representation, trading interest and financial performance. The index is calculated and disseminated real-time.

CNX Nifty Junior: S&P CNX Nifty is the first rung of the largest, highly liquid stocks in India. CNX Nifty Junior is an index built out of the next 50 large, liquid stocks in India. It is not as liquid as the S&P CNX Nifty. It may be useful to think of the S&P CNX Nifty and the CNX Nifty Junior as making up the 100 most liquid stocks in India. S&P CNX Nifty is the front line blue chips, large and highly liquid stocks. The CNX Nifty Junior is the second rung of growth stocks, which are not as established as those in the S&P CNX Nifty. A stock like Satyam Computers, which recently graduated into the S&P CNX Nifty, was in the CNX Nifty Junior for a long time prior to this. CNX Nifty Junior can be viewed as an incubator where young growth stocks are found. As with the S&P CNX Nifty, stocks in the CNX Nifty Junior are filtered for liquidity, so they are the most liquid of the stocks excluded from the S&P CNX Nifty. Buying and selling the entire CNX Nifty Junior, as a portfolio is feasible. The maintenance of the S&P CNX Nifty and the CNX Nifty Junior are synchronized so that the two indices will always be disjoint sets; i.e. a stock will never appear in both indices at the same time. Hence it is always meaningful to pool the S&P CNX Nifty and the CNX Nifty Junior into a composite 100 stock index or portfolio.

CNX Mid-cap: The medium capitalized segment of the stock market is being increasingly perceived as an attractive investment segment with high growth potential. The primary objective of the CNX Mid-cap Index is to capture the movement and be a benchmark of the mid-cap segment of the market.

CNX Segment Indices: For effectively researching the market, IISL has segregated the market in many ways. One of the ways is based on ownership. The CNX MNC Index comprises 50 listed companies in which the foreign shareholding is over 50% and/or the management control is vested in the foreign company. The index is a market capitalization weighted index with base period being the month of December 1994 indexed to a value 1,000. Companies in the index should be MNCs and are selected based on their market capitalization, industry representation, trading value and financial performance. As part of its agenda to reform the Public Sector Enterprises (PSE), the Government has selectively been divesting its holdings in public sector enterprises since 1991. With a view to provide regulators, investors and market intermediaries with an appropriate benchmark that captures the performance of this segment of the market, as well as to make available an appropriate basis for pricing forthcoming issues of PSEs, IISL has developed the CNX PSE Index, comprising of 20 PSE stocks. The Index is a market capitalization weighted index with base period being the month of December 1994 and base index value being 1,000. Companies selected in the index have to be PSEs, which should rank high in terms of market capitalization and trading value. Companies selected in the index have to be PSEs, which should rank high in terms of market capitalization and trading value.

CNX IT Sector Index: With the Information Technology (IT) sector in India growing at a fast rate, there is a need to provide investors, market intermediaries and regulators an appropriate benchmark that captures performance of this sector. Companies in this index should have more than 50% of their turnover from IT related activities like software development, hardware manufacture, vending, support and maintenance. The index is a market capitalization weighted index with its base period being December 1995 with base value 1,000 subsequently w.e.f. 28 May 2004, the base value of the Index was revised from 1000 to 100.

3.6 Brokers

A broker is an intermediary who arranges to buy and sell securities on behalf of clients (the buyer and the seller). According to Rule 2 (e) of SEBI (Stock Brokers and Sub-Brokers) Rules, 1992, a stockbroker means a member of a recognized stock exchange. No stockbroker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration granted by SEBI.

A stockbroker applies for registration to SEBI through a stock exchange or stock exchanges of which he or she is admitted as a member. SEBI may grant a certificate to a stockbroker [as per SEBI (Stock Brokers and Sub-Brokers) Rules, 1992] subject to the following conditions that:

- He holds the membership of any stock exchange;
- He shall abide by the rules, regulations and byelaws of the stock exchange or stock exchanges of which he is a member;
- In case of any change in the status and constitution, he shall obtain prior permission of SEBI to continue to buy, sell or deal in securities in any stock exchange;
- He shall pay the amount of fees for registration in the prescribed manner; and
- He shall take adequate steps for redressal of grievances of the investors within one month of the date of the receipt of the complaint and keep SEBI informed about the number, nature and other particulars of the complaints.

While considering the application of an entity for grant of registration as a stock broker, SEBI shall take into account the following namely, whether the stock broker applicant -

- Is eligible to be admitted as a member of a stock exchange;
- Has the necessary infrastructure like adequate office space, equipment and manpower to effectively discharge his activities;
- Has any past experience in the business of buying, selling or dealing in securities;
- Is being subjected to any disciplinary proceedings under the rules, regulations and byelaws of a stock exchange with respect to his business as a stockbroker involving either himself or any of his partners, directors or employees.

3.7 Sub-Brokers

A Sub-broker is a person who intermediates between investors and stockbrokers. He

acts on behalf of a stockbroker as an agent or otherwise for assisting the investors for buying, selling or dealing in securities through such stockbroker. No sub-broker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration granted by SEBI. A sub-broker may take the form of a sole proprietorship, a partnership firm or a company. Stockbrokers of the recognized stock exchanges are permitted to transact with sub-brokers.

Sub-brokers are required to obtain certificate of registration from SEBI in accordance with SEBI (Stock Brokers & Sub-brokers) Rules and Regulations, 1992, without which they are not permitted to buy, sell or deal in securities. SEBI may grant a certificate to a sub-broker, subject to the following conditions that:

- He shall pay the fees in the prescribed manner;
- He shall take adequate steps for redressal of grievances of the investors within one month of the date of the receipt of the complaint and keep SEBI informed about the number, nature and other particulars of the complaints received;
- In case of any change in the status and constitution, the sub-broker shall obtain prior permission of SEBI to continue to buy, sell or deal in securities in any stock exchange; and
- He is authorized in writing by a stockbroker being a member of a stock exchange for affiliating himself in buying, selling or dealing in securities.

In case of company, partnership firm and sole proprietorship firm, the directors, the partners and the individual, shall comply with the following requirements:

- The applicant is not less than 21 years of age;
- The applicant has not been convicted of any offence involving fraud or dishonesty;
- The applicant has at least passed 12th standard equivalent examination from an institution recognized by the Government.
- They should not have been debarred by SEBI.
- The corporate entities applying for sub-broker ship shall have a minimum paid up capital of Rs.5 lakh and it shall identify a dominant shareholder who holds a minimum of 51% shares either singly or with the unconditional support of his/ her spouse.

The guidelines issued by SEBI is as under:

- The registered sub-broker can transact only through the member broker who had recommended his application for registration. If the Sub-broker is desirous of doing business with more than one broker, he will have to obtain separate registration in each case.
- The sub-broker shall disclose the names of all other sub-brokers/brokers where he is having direct or indirect interest.
- It shall be the responsibility of the broker to report the default if any of his sub-broker to all other brokers with whom sub-broker is affiliated.
- The agreement can be terminated by giving the notice in writing of not less than

6 months by either party.

- Sub-brokers are obligated to enter into agreements and maintain the database of their clients/investors in the specified format.

The applicant sub-broker shall submit the required documents to the stock exchange with the recommendation of a stockbroker. After verifying the documents, the stock exchange may forward the documents of the applicant sub-broker to SEBI for registration. A sub-broker can trade in that capacity after getting himself registered with SEBI. The Exchange may not forward the said application of the sub-broker to SEBI for registration if the applicant is found to have introduced or otherwise dealt with fake, forged, stolen, counterfeit etc. shares and securities in the market.

The sub-broker of a stockbroker of the Exchange has to comply with all the requirements under SEBI (stock brokers and sub-brokers) Regulation, 1992 and the requirements of the Exchange as may be laid down from time to time. The sub-broker is bound by and amenable to the Rules, Byelaws and Regulations of the Exchange. The sub-broker shall also comply with all terms and conditions of the agreement entered into by him with the stockbroker.

After registration with SEBI, the sub-broker can buy, sell or deal in securities on behalf of the investors through the broker with whom he is affiliated. The stockbroker has to issue contract notes for all trades in respect of its sub-broker in the name of the sub-broker and the sub-broker shall, in turn issue purchase/sale notes to his clients as per the format prescribed by the Exchange.

The stockbroker with whom the sub-broker is affiliated is responsible for -

- Ensuring the compliance by a sub-broker of the Rules, Bye-laws and Regulations of the Exchange
- Inspecting that the sub-brokers are registered and recognized
- Ensuring that the sub-brokers function is in accordance with the Scheme, Rules, Byelaws, Regulations etc. of the Exchange/NSCCL and the SEBI Regulations etc.
- Informing the sub-broker and keeping him apprised about trading/settlement cycles, delivery/payment schedules and any changes therein from time to time.
- Reporting any default or delay in carrying out obligations by any of the sub-brokers affiliated to him, to all other stock brokers with whom the said sub-broker is affiliated.

3.8 Foreign Institutional Investors (FIIs)

FII means an entity established or incorporated outside India, which proposes to make investment in India. Sub-account includes those foreign corporate, foreign individuals, and institutions, funds or portfolios established or incorporated outside India on whose behalf investments are proposed to be made in India by a FII. Designated Bank is bank

in India, which has been authorized by the Reserve Bank of India to act as a banker to FII.

Entities / funds, eligible to get registered as FII

- Pension Funds
- Mutual Funds
- Insurance Companies
- Investment Trusts
- Banks
- University Fund s
- Endowments
- Foundations
- Charitable Trusts / Charitable Societies

Further, following entities proposing to invest on behalf of broad based funds, are also eligible to be registered as FIIs:

- Asset Management Companies
- Institutional Portfolio Managers
- Trustees
- Power of Attorney Holders

3.8.1 The Parameters on which SEBI decides FII Applicants' Eligibility

- Applicants track record, professional competence, financial soundness, experience, general reputation of fairness and integrity. (The applicant should have been in existence for at least one year)
- Whether the applicant is registered with and regulated by an appropriate Foreign Regulatory Authority in the same capacity in which the application is filed with SEBI
- Whether the applicant is a fit & proper person.

100% debt FIIs are debt dedicated FIIs which invest in debt securities only. The procedure for registration of FII/sub-account, under 100% debt route is similar to that of normal funds besides a clear statement by the applicant that it wishes to be registered as FII/sub-account under 100% debt route.

If a registered FII/sub-account undergoes name change, then the FII need to promptly inform SEBI about the change. It should also mention the reasons for the name change and give an undertaking that there has been no change in beneficiary ownership. In case of name change of FII, the request should be accompanied with documents from home regulator and registrar of the company evidencing approval of name change, and the original FII registration certificate issued by SEBI should be sent back for necessary amendment.

Financial instruments available for FII investments

- Securities in primary and secondary markets including shares, debentures and warrants of companies, unlisted, listed or to be listed on a recognized stock exchange in India;
- Units of mutual funds;
- Dated Government Securities;
- Derivatives traded on a recognized stock exchange;
- Commercial papers.

3.8.2 The Investment Limits on Equity Investments by FII/Sub-account

- FII, on its own behalf, shall not invest in equity more than 10% of total issued capital of an Indian company.
- Investment on behalf of each sub-account shall not exceed 10% of total issued capital of an India company.
- For the sub-account registered under Foreign Companies/Individual category, the investment limit is fixed at 5% of issued capital.

These limits are within overall limit of 24% / 49 % / or the sectoral caps a prescribed by Government of India / Reserve Bank of India.

Names of 100% debt FIIs

FII Name	Registration No.
ABN AMRO Asia Pacific Pte Ltd.	IN-SG-FD-0671-00
Bank of America Singapore Ltd.	IN-SG-FA-0778-02
Citicorp Investment Bank (Singapore) Limited	IN-SG-FB-0013-93
DB International (Asia) Limited	IN-SG-FA-0496-98
Dresdner Bank AG	IN-GE-FD-0656-00
UBS AG	IN-CH-FA-0308-95
DBS Bank Ltd - Debt	IN-SG-FD-0940-04
BNP Paribas	IN-UK-FD-0695-01
The Bank of Nova Scotia Asia Limited	IN-SG-FD-0957-04
Standard Chartered Bank (Mauritius) Limited	IN-MU-FD-0829-03
Merrill Lynch Mortgage Lending, Inc.	IN-US-FD-0935-04
Standard Bank Asia Ltd	IN-HK-FD-1020-05
Rabobank Ireland plc	IN-IR-FD-0944-04
RBC Dexia Truat Services Singapore Limited as Trustee of DBS Asia Bond Fund	IN-SG-FD-1229-06
Shenton Income Fund	IN-SG-FD-1111-05

3.8.3 The Investment Limits on Debt Investments by FII/Sub-account

The FII investments in debt securities are governed by the policy of the Government of India. Currently following limits are in effect:

- For FII investments in Government debt, currently following limits applicable are:

100 % Debt Route	US $ 1.75 billion
70 : 30 Route	US $ 0.25 billion
Total Limit	US $ 2.00 billion

- For corporate debt following limits are applicable:

100 % Debt Route	US $1.35 billion
70 : 30 Route	US $0.15 billion
Total Limit	US $1.5 billion

Names of 100% debt Sub Accounts

Sub Account Name	Registration No.
Barclays Merchant Bank (Singapore) Ltd.	2001288
CBC Bahrain - FII Debt Account	1998152
J.P. Morgan Securities Asia Pte. Ltd.	1998367
Deutsche Debt Investment (Mauritius) Limited	1997636
HSBC Financial Services (Middle East) Limited	2004011
Asia Debt Recovery Co Ltd/Debt FII	2004092
Clearwater Capital Partners (Cyprus) Limited	2004940
Credit Suisse Singapore Branch	2005238
Fidelity Group trust for Employee Benefit Plans: Emerging Markets Debt Collective Pool	2005727
Deutsche Premier Asian Bond Fund	2004193
ING Bank N.V. - Debt a/c	2006479
The Master trust Bank of Japan, Ltd. as Trustee of Schroder Asian Bond Mother Fund	2006476
Schroder International Selection fund - Asian Bond	2003482
International Opportunities Funds - Asian Bond Fund	2003265
Schroder Credit Renaissance Fund, Ltd.	2006290

3.9 Portfolio Managers

Any person who pursuant to a contract or arrangement with a client, advises or directs or undertakes on behalf of the client (whether as a discretionary portfolio manager or otherwise) the management or administration of a portfolio of securities or the funds of the client, as the case may be is a portfolio manager. The discretionary portfolio

manager individually and independently manages the funds of each client in accordance with the needs of the client in a manner, which does not partake character of a Mutual Fund, whereas the non-discretionary portfolio manager manages the funds in accordance with the directions of the client.

An applicant for registration or renewal of registration as a portfolio manager is required to pay a non-refundable application fee of Rs.1,00,000. SEBI takes into account all matters, which it deems relevant to the activities relating to portfolio management. The applicant has to be a body corporate and must have necessary infrastructure like adequate office space, equipments and the manpower to effectively discharge the activities of a portfolio manager. The principal officer of the applicant should have the professional qualifications in finance, law, accountancy or business management from an institution recognized by the Government. The applicant should have in its employment minimum of two persons who, between them, have at least five years experience as portfolio manager or stock broker or investment manager or in the areas related to fund management. The applicant also has to fulfill the capital adequacy requirements, etc.

Principal officer means a director of the portfolio manager who is responsible for the activities of portfolio management and has been designated as principal officer by the portfolio manager. The portfolio manager is required to have a minimum net worth of fifty lac rupees. Every portfolio manager is required to pay a sum of ten lac rupees as registration fees at the time of grant of certificate of registration by SEBI. The certificate of registration remains valid for three years. The portfolio managers are not required to pay any annual fee to SEBI.

The portfolio manager, before taking up an assignment of management of funds or portfolio of securities on behalf of the client, enters into an agreement in writing with the client clearly defining the inter se relationship and setting out their mutual rights, liabilities and obligations relating to the management of funds or portfolio of securities containing the details as specified in Schedule IV of the SEBI (Portfolio Managers) Regulations, 1993.

The portfolio manager provides to the client the Disclosure Document at least two days prior to entering into an agreement with the client. The Disclosure Document, inter alia, contains the quantum and manner of payment of fees payable by the client for each activity for which service is rendered by the portfolio manager directly or indirectly (where such service is out sourced), portfolio risks, complete disclosures in respect of transactions with related parties as per the accounting standards specified by the Institute of Chartered Accountants of India in this regard, the performance of the portfolio manager and the audited financial statements of the portfolio manager for the immediately preceding three years.

The SEBI (Portfolio Managers) Regulations, 1993, have not prescribed any scale of fee to be charged by the portfolio manager to its clients. However, the regulations provide that the portfolio manager shall charge a fee as per the agreement with the client for

rendering portfolio management services. The fee so charged may be a fixed amount or a return based fee or a combination of both. The portfolio manager shall take specific prior permission from the client for charging such fees for each activity for which service is rendered by the portfolio manager directly or indirectly (where such service is outsourced). The portfolio manager is required to accept funds or securities having a minimum worth of five lac rupees from the client while opening the account for the purpose of rendering portfolio management service to the client.

A portfolio manager is permitted to invest in derivatives, including transactions for the purpose of hedging and portfolio rebalancing, through a recognized stock exchange. However, leveraging of portfolio is not permitted in respect of investment in derivatives. The total exposure of the portfolio client in derivatives should not exceed his portfolio funds placed with the portfolio manager and the portfolio manager should basically invest and not borrow on behalf of his clients.

The performance of a discretionary portfolio manager is calculated using weighted average method taking each individual category of investments for the immediately preceding three years and in such cases performance indicators is also disclosed.

3.10 Custodians

A custodian is a person who holds for safekeeping the documentary evidence of the title to property belonging like share certificates, etc. The title to the custodian's property remains vested with the original holder, or in their nominee(s), or custodian trustee, as the case may be. In NSCCL, custodian is a clearing member but not a trading member. He settles trades assigned to him by trading members. He is required to confirm whether he is going to settle a particular trade or not. If it is confirmed, the NSCCL assigns that obligation to that custodian and the custodian is required to settle it on the settlement day. If the custodian rejects the trade, the obligation is assigned back to the trading / clearing member.

The mutual fund shall appoint a custodian to carry out the custodial services for the schemes of the fund and inform SEBI about the appointment with 15 days. The mutual fund shall enter into a custodian agreement with the custodian. The agreement, the service contract, terms and appointment of the custodian shall be after prior approval of the trustees. If the sponsor or its associates hold 50% or more of the voting rights of the share capital of the custodian, or where 50% or more of the directors of the custodian represent the interest of the sponsor or its associates, then such custodian will not be appointed for a mutual fund constituted by the same sponsor or any of its associate or subsidiary company.

3.11 Share Transfer Agents

The Registrars and Share Transfer Agents normally receive the share application from

various collection centers. They recommend the basis of allotment in consultation with the Regional Stock Exchange for approval. They arrange for the dispatching of the share certificates. They hand over the details of the share allocation and other related registers to the company. Usually registrars and share transfer agent to the issue retain the issuer records at least for a period of six months from the last date of dispatch of letters of allotment to enable the investors to approach the registrars for redressal of their complaints.

3.12 Know your Client

The stockbroker shall enter into an agreement in the specified format provided by NSE with the client before accepting orders on latter's behalf. The said agreement shall be executed on non-judicial stamp paper of adequate value, duly signed by both the parties on all the pages. Copy of the said agreement is to be kept with the stockbroker permanently.

In addition to the agreement, the stockbroker shall seek information from the client in the 'Client Registration Application Form' obtaining information like: investor risk profile, financial profile, social profile, investor identification details, family, income, PAN number, employment, age, investments, other assets, financial liabilities, other responsibilities, social standing, investments horizon, risk taking ability etc. The stockbroker shall obtain recent passport size photographs of each of their clients in case of individual clients and of all partners in case of partnership firms and of the dominant promoter in case of corporate clients.

The stockbroker shall also take proof of identification of the client. A stockbroker shall not deal knowingly, directly or indirectly, with a client who defaults to another stockbroker. There is no limit on the number of clients for a stockbroker.

3.13 Member Constituent Agreement

The member broker shall enter into an agreement with the client before placing orders. Such agreement shall include provisions specified by the exchange in this behalf. The said agreement shall be executed on non-judicial stamp paper. The client should provide information to the broker in the 'Client Registration Application Form'.

3.13.1 Orders

The member broker shall ensure that appropriate confirmed order instructions are obtained from the clients before placement of an order on the system and shall keep relevant records or documents of the same and of the completion or otherwise of these orders thereof.

Execution of Orders: In order to execute a trade for a client, a broker must have specific customer instructions as to name of the company, the precise number of shares and limit/market price condition. Where the client requires an order to be placed or any

of his orders to be modified after the order has been entered in the system but has not been traded, the broker shall ensure that he obtains order placement/modification details in writing from the client. The broker shall make available to his client the order number and copies of the order confirmation slip/modification slip/cancellation slip and a copy of the trade confirmation slip as generated on the trading system, forthwith on execution of the trade. The TM shall maintain copies of all instructions in writing from clients including participants for an order placement, order modification, order cancellation, trade cancellation etc.

Accumulation of orders: The broker shall not accumulate client's order/unexecuted balances of order where such aggregate orders/aggregate of unexecuted balance is greater than the regular lot size, specified for that security by the Exchange. The broker shall place forthwith all the accumulated orders where they exceed the regular lot size. Where the broker has accumulated the orders of several clients to meet the requirement of the regular lot quantity, he may give his own order number referred to as the Reference Number, together with a reference number to the NEAT Order Number, to the client.

3.13.2 Margins from the Clients

It shall be mandatory for the member broker to collect upfront margins from clients whose trades would result in a margin of Rs.50,000/- or more. The margin so collected shall be kept separately in the client bank account and utilized for making payment to the clearinghouse for margin and settlement with respect to that client.

3.13.3 Payments/Delivery of Securities to the Clients

Every member broker shall make payments to his clients or deliver the securities purchased within 2 working days of payout unless the client has requested otherwise.

3.13.4 Brokerage

The maximum brokerage chargeable by the member broker in respect of trades affected in the securities admitted to dealing on the Exchange is fixed at 2.5% of the contract price, exclusive of statutory levies like, SEBI turnover fee, service tax and duty. This maximum brokerage is inclusive of the brokerage charged by the sub-broker. The brokerage shall be charged separately from the clients and shall be indicated separately from the price, in the contract note. The member broker may not share brokerage with a person who is a member broker or in employment of another member broker.

3.13.5 Segregation of Bank Accounts

The member broker should maintain separate bank accounts for client's funds and own funds. It shall be compulsory for all members to keep the money of the clients in a separate account and their own money in a separate account. Funds shall be transferred from the client account to the clearing account for the purpose of funds pay-in obligations on behalf of the clients and vice-versa in case of funds payout. No payment for transaction

in which the member broker is taking position as a principal will be allowed to be made from the client's account.

3.14 Merchant Bankers

The merchant banking activity in India is governed by SEBI (Merchant Bankers) Regulations, 1992. Consequently, all the merchant bankers have to be registered with SEBI. The details about them are presented in the table below.

Category of Merchant Banker	Permitted Activity	Net worth (Rs. Million)
Category I	To carry on activity of the issue management, to act as adviser, consultant, manager, underwriter, portfolio manager	50.00
Category II	To act as adviser, consultant, co-manager, underwriter, portfolio manager	5.00
Category III	To act as underwriter, adviser, consultant to an issue	2.00
Category IV	To act only as adviser or consultant to an issue	Nil

Only a corporate body other than a non-banking financial company having necessary infrastructure, with at least two experienced persons employed can apply for registration as a merchant banker. The applicant has to fulfill the capital adequacy requirements, with prescribed minimum net worth. The regulations cover the code of conduct to be followed by merchant bankers, responsibilities of lead managers, payments of fees and disclosures to SEBI. They are required to appoint a Compliance Officer, who monitors compliance requirements of the securities laws and is responsible for redressal of investor grievance.

3.15 Bankers to an Issue

Bankers to the issue have the responsibility of collecting the application money along with the application form. The bankers to the issue generally charge commission besides the brokerage, if any. Depending upon the size of the public issue more than one banker to the issue is appointed. When the size of the issue is large, 3 to 4 banks are appointed as bankers to the issue. The number of collection centers is specified by the central government. The bankers to the issue should have branches in the specified collection centers. In big or metropolitan cities more than one branch of the various bankers to the issue are designated as collecting branches. Branches are also designated in the different towns of the state where the project is being set up. If the collection centers for application money are located nearby people are likely to invest the money in the company shares.

3.16 Debenture Trustees

It has been made mandatory for any company making a public/rights issue of debentures to appoint one or more debenture trustees before issuing the prospectus or letter of offer and to obtain their consent which shall be mentioned in the offer document. The Debenture Trustees shall not:

- Beneficially hold shares in a company.
- Be beneficially entitled to money, which is to be paid by the company to the debenture trustees.
- Enter into any guarantee in respect of principal debt secured by the debentures or interest thereon.

The functions that is performed by the Trustees include:

- Protecting the interests of the debenture holders by addressing their grievances.
- Ensuring that the assets of the company issuing debentures are sufficient to discharge the principal amount.
- To ensure that the offer document does not contain any clause which is inconsistent with the terms of the debentures or the Trust Deed.
- To ensure that the company does not commit any breach of the provisions of the Trust Deed.
- To take reasonable steps as may be necessary to undertake remedy in the event of breach of any covenant in the Trust Deed.
- To convene a meeting of the debenture holders as and when required.

If the debenture trustees are of the opinion that the assets of the company are insufficient to discharge the principal amount, they shall file a petition before the Central Government and the latter may after hearing the parties pass such orders as is necessary in the interests of the debenture holders. As per the SEBI (Debenture Trustees) Regulations, 1993, a Debenture Trustee can be a scheduled bank, an insurance company, a body corporate or a public financial institution.

3.17 Underwriters

As discussed in the previous chapter, underwriting is a contract by means of which a person gives an assurance to the issuer to the effect that the former would subscribe to the securities offered in the event of non-subscription by the person to whom they were offered. The person who assures is called an underwriter. The underwriters do not buy and sell securities. They stand as back-up supporters and underwriting is done for a commission. Underwriting provides an insurance against the possibility of inadequate subscription. Underwriters are divided into two categories:

- Financial Institutions and Banks
- Brokers and approved investment companies.

Some of the underwriters are financial institutions, commercial banks, merchant bankers, members of the stock exchange, Export and Import Bank of India etc. The underwriters are exposed to the risk of non-subscription and for such risk exposure they are paid an underwriting commission.

Before appointing an underwriter, the financial strength of the prospective underwriter is considered because he has to undertake and agree to subscribe the non-subscribed portion of the public issue. The other aspects considered are:

- Experience in the primary market
- Past underwriting performance and default
- Outstanding underwriting commitment
- The network of investor clientele of the underwriter and
- His overall reputation.

The company after the closure of subscription list communicates in writing to the underwriter the total number of shares/debentures under subscribed, the number of shares/debentures required to be taken up by the underwriter. The underwriter would take up the agreed portion. If the underwriter fails to pay, the company is free to allot the shares to others or take up proceeding against the underwriter to claim damages for any loss suffered by the company for his denial.

3.18 Credit Rating Agencies

Investor should also be familiar with the ratings given by the Credit Rating and Information Services of India Ltd. (CRISIL) for protecting their interest. The CRISIL ratings are given only for debt instruments of companies, namely, Commercial Papers (CP), debentures, bonds and fixed deposits. Since early 1992, companies also use the ratings of Investment Information and Credit Rating Agency (ICRA). CARE is another agency in the credit rating business, operating since 1993. Duff & Phelps is another private agency set up in 1996 for rating purposes. These are given on a voluntary basis and may be publicized or not, depending upon the company's own perception of the impact of these on the investors. The ratings in use by the companies are published by the CRISIL in their "CRISIL Rating Scan."

The companies use them only when the ratings are favorable to them and when they are making only public offer for deposits or debentures. The investors should examine these symbols with regard to their benefits and their implication.

Since a rating given can be revised upwards or downwards, the investors should keep a watch on any such revision. Unfortunately, the CRISIL itself would not publicize them for the benefit of the investors as it is a private and autonomous organization and is under no obligation to do so. The SEBI guidelines now insist that all companies should get these ratings and publicize them compulsorily, if they are borrowing through issue of debentures. Many companies accepting fixed deposits are also using these CRISIL ratings. Rating of company deposits is made compulsory under the New Companies

Bill 1993 and by RBI in the case of NBFCs. The SEBI proposed to bring these agencies under its control through giving Directives and a Code of Conduct.

The implications of the ratings used are as follows:
- For Debentures, simple 'A' and 'B' are used.
- For preference shares, "PP" is prefixed.
- Fox fixed deposits and short-term instruments; "F" and "P" are prefixed.

Debenture Ratings	**Implication**	**Fixed Deposits Ratings**	**Implication**
Triple A - (AAA)	Highest Safety	F Triple A - (FAAA)	Highest Safety
Double A - (AA)	High Safety	F Double A - (FAA)	High Safety
Single A - (A)	Adequate Safety	F Single A - (FA)	Adequate Safety
Triple B - (BBB)	Moderate Safety	FB, FC & FD	Inadequate, high risk and default prone instruments
Double B - (BB)	Inadequate Safety		
B, C & D	High risk and default prone		

3.19 Listing

Listing means formal admission of a security to the trading platform of a stock exchange. Listing of securities on the domestic stock exchanges is governed by the provisions in the Companies Act, 1956, the Securities Contracts (Regulation) Act, 1956 (SC(R)A), the Securities Contracts (Regulation) Rules (SC(R)R), 1957, the circulars/ guidelines issued by Central Government and SEBI. In addition, the rules, byelaws and regulations of the concerned stock exchange and by the listing agreement entered into by the issuer and the stock exchange. Some of the key provisions are enumerated below:

- The Companies Act, 1956 requires a company intending to issue securities to the public should seek permission from one or more recognized stock exchanges for its listing. If the permission were not granted by all the stock exchanges before the expiry of 10 weeks from the closure of the issue, then the allotment of securities would be void. Also, a company may prefer to appeal against refusal of a stock exchange to list its securities to the Securities Appellate Tribunal (SAT). The prospectus should state the names of the stock exchanges, where the securities are proposed to be listed.
- The byelaw of the exchanges stipulates norms for the listing of securities. All listed companies are under obligation to comply with the conditions of listing agreement with the stock exchange where their securities are listed. If they fail to comply with them, then they are punishable with a fine up to Rs.1000.
- The SC(R)R prescribe requirements with respect to the listing of securities on a recognized stock exchange and empowers SEBI to waive or relax the strict enforcement of any or all of them.

- The listing agreement states that the issuer should agree to adhere to the agreement of listing, except for a written permission from the SEBI. As a precondition for the security to remain listed, an issuer should comply with the conditions as may be prescribed by the Exchange. Further, the securities are listed on the Exchange at its discretion, as the Exchange has the right to suspend or remove from the list the said securities at any time and for any reason, which it considers appropriate.
- A SEBI circular asserts that the basic norms of listing on the stock exchanges should be uniform across the exchanges. However, the stock exchanges can prescribe additional norms over and above the minimum, which should be part of their byelaws. SEBI has been issuing guidelines/circulars prescribing certain norms to be included in the listing agreement and to be complied by the companies.
- The stock exchanges levy listing fees on the companies, whose securities are listed with them. The listing fee has two components - initial fee and annual fee. While, initial fee is a fixed amount, the annual fee varies depending upon the size of the company. NSE charges Rs.7,500 as initial fees. For companies with a paid-up share and/or debenture capital of less than or equal to Rs.1 crore annual listing fees is Rs.4,200. For companies with a paid-up share and/or debenture capital of more than Rs.50 crore, the annual listing fees is Rs.70,000 plus Rs.1,400 for every additional Rs.5 crore or part thereof.

A number of requirements, under the SC(R)R, the byelaws, the listing agreement have to be continuously complied with by the issuers to ensure continuous listing of its securities. The listing agreement also stipulates the disclosures that have to be made by the companies. In addition, the corporate governance practices enumerated in the agreement have to be followed. The Exchange is required to monitor the compliance with requirements. In case a company fails to comply with the requirements, then trading of its security would be suspended for a specified period, or withdrawal/ de-listing, in addition to penalty as prescribed in the SC(R)A.

3.20 Membership

The trading platform of a stock exchange is accessible only to trading members. They play a significant role in the secondary market by bringing together the buyers and sellers. The brokers give buy/sell orders either on their own account or on behalf of clients. As these buy and sell order matches, the trades are executed. The exchange can admit a broker as its member only on the basis of the terms specified in the Securities Contracts (Regulation) Act, 1956, the SEBI Act 1992, the rules circulars, notifications, guidelines, and the byelaws, rules and regulations of the concerned exchange. No stockbroker or sub-broker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration from the SEBI.

3.20.1 Member of the Stock Exchange

The Securities Contract Regulation Act of 1956 has provided uniform regulation for the admission of members in the stock exchanges. The minimum required educational qualification

is a pass in 12th examination.

The stock exchanges, however, are free to stipulate stricter requirements than those stipulated by the SEBI. The minimum standards stipulated by NSE are in excess of those laid down by the SEBI. The NSE admits members based on factors, such as, corporate structure, capital adequacy, track record, education, and experience. This reflects a conscious decision of NSE to ensure quality broking services.

The Mumbai and Calcutta stock exchanges have set up training institutes to enable the members to understand the complexities of the stock trading. In recent days highly qualified persons such as Company secretaries, Charted accountants and MBA's are becoming members. Corporate membership is also permitted now.

3.20.2 Qualifications for Membership

The members of recognized stock exchanges should have the following qualifications:

- The minimum age prescribed for the members is 21 years.
- He/she should be an Indian Citizen.
- He should be neither a bankrupt nor compounded with the creditors.
- He should not be convicted for fraud or dishonesty.
- He should not be engaged in any other business connected with a company.
- He should not be a defaulter of any other stock exchange.

Companies and financial institutions are not members as per the earlier rules. But the government has permitted change in the byelaws of the exchanges to permit corporate and institutional members and also grant permission for a member of any stock exchange to be a member of another stock exchange in 1993.

Members are prohibited from entering into contracts with persons other than members or from dealing with clients as principals. Spot delivery transactions are exempt from the provisions of the Act. Only the members in the notified areas where the stock exchange exists can pass contracts. The sub-brokers can also pass valid contract notes or confirmation notes, if they are registered with SEBI.

3.20.3 A Member

A member/broker registered with the recognized stock exchange has to apply to the SEBI for registration. Likewise a sub-broker even though he is registered with the stock exchange should apply to SEBI for registration. Usually the agreement between the broker and the sub broker is carried out on a non-judicial stamp paper of Rs.10. The agreement generally specifies the authority and responsibility of the broker and sub broker.

The broker has to abide by the code of conduct laid down by the SEBI. The code of conduct prevents the malpractice, manipulation and gives other statutory requirements. If a broker is involved in manipulation or price rigging or gives false information, his registration is likely to be suspended. If the rules and regulations regarding insider's

trading and take over codes are not adhered to, the registration may even be cancelled.

Table: Eligibility Criteria for Trading Membership on CM Segment of NSE

(Amount in Rs. lakh)

Particulars	CM and F&O Segment	CM, WDM and F&O Segment
Constitution	Individuals/ Firms/ Corporate	Corporate
Paid-up capital (in case of corporate)	30	30
Net Worth	100	200
Interest Free Security Deposit (IFSD)	125	275
Collateral Security Deposit (CSD)	25	25
Annual Subscription	1	2
Education	Individual trading member/ two partners/ two directors should be a graduate. Dealers should also have passed SEBI approved certification test for Derivatives and Capital Market (Basic or Dealers) Module of NCFM.	At least two directors should be a graduate. Dealers should also have passed SEBI approved certification test for Derivatives and Capital Market (Basic or Dealers) Module of NCFM.
Experience	Two year's experience in securities market	
Track Record	The Applicant/Partners/Directors should not be defaulters on any stock exchange. They must not be debarred by SEBI for being associated with capital market as intermediaries. They must be engaged solely in the business of securities and must not be engaged in any fund-based activity.	

Note: Clearing Membership requires higher networth, IFSD and CSD.

The authorities have been encouraging corporatisation of the broking industry. As a result, a number of brokers-proprietor firms and partnership firms have converted themselves into corporates. As at end-March 2005, there were 9,128 brokers (including multiple registrations) registered with SEBI as compared to 9,368 brokers as at end-March 2004. As of end March 2005, 3,773 brokers, accounting for nearly 41.33% of total have become corporate entities. Amongst those registered with NSE around 89.86% of them were corporatised, followed by OTCEI and BSE with 76.90% and 73.55% corporate brokers respectively.

As at end-March 2005, there were 13,684 sub-brokers registered with SEBI, as compared with 12,815 sub-brokers as at end of previous year. During 2004-05, 239 new brokers

were registered with SEBI, whereas 479 were membership cases of reconciliation/cancellation/ surrender. NSE and BSE together constituted 89.5% of the total sub-brokers.

3.20.4 Member/Broker and the Investor

- The broker should provide adequate information regarding the stocks.
- The broker should be capable of giving short-term and long-term investment suggestions to the investors.
- The broker should be able to confirm the purchase and sale of the securities quickly.
- He should be able to provide price quotes quickly, which is now possible with the computer network.
- The broker should be noted for his integrity. He should have a good name in the society.
- The broker should have adequate experience in the market to take correct decision.
- The broker should have contact with other stock exchanges to execute the order profitably.
- The broker should also offer incidental service like arranging for financing the clients' transaction.

3.21 Screen Based Trading

Prior to setting up of NSE, the trading on stock exchanges in India used to take place through an open outcry system. This system did not allow immediate matching or recording of trades. This was time consuming and imposed limits on trading. In order to provide efficiency, liquidity and transparency, NSE introduced a nation-wide on-line fully-automated screen based trading system (SBTS). In this system a member can punch into the computer, quantities of securities and the prices at which he desires to transact and the transaction is executed as soon as it finds a matching sale or buy order from a counter party. SBTS electronically matches orders on price/time priority and hence it cuts down on time and cost. It enables market participants to see the full market on real time, making the market transparent. It allows a large number of participants, irrespective of their geographical locations, to trade with one another simultaneously, improving the depth and liquidity of the market. Given the efficiency and cost effectiveness delivered by the NSE's trading system, it became the leading stock exchange in the country in its very first year of operation. This forced the other stock exchanges to adopt SBTS. As a result, open out cry system has disappeared from India. Today, India can boast that almost 100% trading takes place through electronic order matching.

Technology has been harnessed to carry the trading platform to the premises of brokers. NSE carried the trading platform further to the PCs in the residence of investors through the internet and to hand-held devices through WAP for convenience of mobile investors. This has made a huge difference in terms of equal access to investors in a geographically vast country like India.

3.21.1 How do you Buy and Sell?

You can buy and sell stocks in any Stock Exchange only through member brokers registered

with the SEBI and the Stock Exchange concerned.

Buying and selling of stocks became much more transparent and swift as screen-based trading has replaced the earlier open outcry system in most of the Stock Exchanges. Brokers execute the buy and sell orders through computers connected to the stock exchange while sitting in the comfort of their offices. Whenever you wish to buy or sell any stock, you need to place your order specifying the limits for quantity and price. The computer in the broker's office constantly matches the orders at the best bid and offer price. Those that are not matched remain on the screen and are open for future matching during the day or settlement.

Apart from the obvious advantages of speed and transparency, screen-based trading now makes it possible for you to have an overall view of the markets as the computer screens constantly display information not only on price movements but major capital market developments that influence the stock prices.

What types of securities can you buy or sell? Most stock exchanges deal with equity shares, preference shares, bonds, debentures, mutual funds and warrants. Any security to be eligible for trading needs to be listed. Exchanges prescribe the criteria and the terms for listing of securities. The criteria like paid-up capital, market capitalization, dividend payment and a performance track record are prescribed to ensure that only companies that meet certain standards are listed. This list is reviewed at periodic intervals. Companies meeting these terms apply to the exchange for listing of their securities, once they meet the listing criteria, the exchange notifies them as listed securities and buy or sell orders are accepted.

If you want to buy or sell any such listed securities, you would have to first approach a registered broker or sub-broker and enter into an agreement with him. You should sign a broker-client agreement and a client registration form before placing the orders. The broker/sub-broker would require document proof of your identity, a letter from your bank attesting your signature, your PAN/GIR numbers etc. It is mandatory that you enter into this agreement to reduce the chances of any future disputes relating to your buy or sell orders. Stock trading is even more risky if both the parties do not understand their obligations clearly. You should carefully read all terms and conditions and understand their implications. While entering into the agreement, you should be careful about certain basic provisions that make the agreement a legally binding contract. Check whether it is duly stamped and signed by both the parties and the witnesses. The stamp paper for agreement is valid for 6 months (in Maharastra) from its date of issue and the agreement cannot be dated prior to the date of the stamp paper.

Once the agreement is entered, your broker may fix an order limit for you and require a deposit of margin money either in cash or cash equivalent (usually blue chip shares). This is a safeguard necessary to prevent reckless speculation, which may result in a default that can ruin the business of the broker.

Now you are ready to place buy or sell orders with your broker. Many reputed brokers send their clients, newsletters and research papers on the scrips you should buy or sell. But keep in mind, some times the advice and tips are guided by vested interests. As you read at the end of our discursion, you would know how to choose the right scrip for your investment. This process is not easy, but once you choose the scrip, you should give specific buy or sell order (preferably in writing) for the scrip, the quantity and price you are interested in and whether you would make the delivery in physical or electronic form. If you do not specify the price, your order would be executed at the prevailing best market price.

There are 3 important documents that record your transactions through the Exchange - an "Order Confirmation Slip", "Trade Confirmation Slip" and a "Contract note". After you have placed the order, your broker should give you an Order Confirmation Slip and after the trade has taken place, you should get a Trade Confirmation Slip. Normally, brokers give a Contract note within 24 hours of the execution of the trade, once the deal is through. The Contract note is an important document as it contains details of the trade, the price and brokerage charged within. You should preserve this Note for tax purposes. It would also help you in resolving any disputes with the broker regarding the exact time and price at which the deal was struck. Even if your order is placed through a sub-broker, the main broker has to take complete responsibility for your transaction and he is legally bound to redress your grievances, if any.

Contract Note is the most important document of all; it's issued in a prescribed format and manner that establishes a legally enforceable relationship between you and your broker regarding the trades carried out. Contract notes are made in duplicate; you and your broker would keep one copy each. When you receive your copy of the contract note, check for mention of order number, trade number, trade time, security name, quantity, rate, brokerage, settlement number, of other levies etc. after you are satisfied that these details are correct, you should ensure smooth settlement of the trade by delivering securities and funds on time to your broker.

Once your order is executed, you will normally have a days time to deliver the shares you sold or pay cash for the shares you bought. Though you may have a days time, to avoid default if you have sold shares, you should immediately deliver the securities. And when you buy shares, you should make the payment immediately after receiving the contract note or in any case, in such a manner that your broker realizes the amount paid before the securities pay in day. It's always advisable to discuss with your broker the exact date and time of delivery (or payment) before you place an order. Once you have fulfilled your obligation to deliver securities you have sold or made payment for the shares you have bought, you should receive money for the shares sold or securities bought from the broker within 48 hours of the pay out day.

For all orders placed in a day, trade settlements take place at periodic intervals. At present, the settlement cycle is of 3 calendar days (or 2 trading days). Different exchanges have different settlement periods, but all of them generally follow a T+2-day cycle.

The exchange nets out for each broker, all buy and sell orders within a settlement period and on the predetermined pay in day, all brokers have to pay in to the exchange their net stocks and or money. On the pay out day, the exchange pays the brokers their net stocks and or money.

Till the depository system (read on for more details on Depository) came into force, all trades were settled in the physical form that required the physical movement of huge quantities of shares from sellers to buyers through the seller's broker and the buyer's broker. But the picture has changed dramatically with the advent of compulsory demat trading where settlement in select scrips take place through a mere book entry.

The BSE has grouped all listed shares in 3 basic categories A, B1 and B2, at times a category is also added for spot delivery. (It has added another new category "Z" for companies not complying with the stock exchange's regulations). 'A' Group is a category of the most liquid shares. 'B1' Group is a subset of the other listed shares that enjoy higher market capitalization and liquidity than the rest. 'B2' Group of shares comprises the shares not covered in the above two categories. The Groups are required to follow the same settlement system. Unlike in BSE, NSE has no different categories or groups for the listed shares and the same trading and settlement procedure is equally applicable for all the shares on the NSE.

What will happen if you are unable to make the delivery or payment or the selling party broker does not deliver the shares bought by you or make payment for the shares sold by you? When a broker or investor goes long, i.e. has bought the shares but fails to pay for them, the defaulting person has to pay a penalty for not paying in time. Until he clears his dues, the securities traded in would not be delivered to him. Additionally, he has to pay interest on the outstanding amount. Similarly when you sell shares but fail to deliver them, a short delivery occurs. You have to buy the shares in the auction by paying a penalty premium. To ensure that genuine investors and brokers do not suffer because of the defaults committed by errant brokers, NSE has set up a Settlement Guarantee Fund essentially to guarantee the execution of the settlement up to the normal pay out. The fund will not guarantee for cases of company objections, i.e. replacement of bad paper or payment of its equivalent financial value.

Some times you may be concerned, whether your trade had been executed in time or it suffered in priority to other big orders executed by large institutional investors. But thanks to the screen-based trading, there is no need to worry on that count. Screen-based trading treats all quantities alike. Lets say you placed a buy order for 100 shares of XYZ Company for Rs.245 and while another big investor places another order at the same time for 100000 shares of the same company for Rs.240. Your order would get priority over the big order.

But why should you get this priority? That's because the system arranges all orders in the priority of price and within price by time. As you have placed order for the same shares at Rs.245 while the other investor had placed it at Rs.240 at the same time,

your order would be matched first with a sell order in the same XYZ Company and only thereafter would the second buyer's order be executed. This is the price priority. However, lets say that both of you have quoted Rs.245 for the same shares. In this case, any sell order in the system at this price will be matched against the order which was placed first. This is the time priority.

What happens if you are ordering from Thiruvanthapuram and not from Mumbai where the Exchange is located? Does a Mumbai investor get priority over you if the price is the same? Of course not. The time taken by an investor to access the trading system from any remote place in India is the same as the time taken by an investor say in, Mumbai. Importantly, orders of all investors are accumulated in a central pool wherein the orders are matched on only two criteria - price and time. To the central computer it is irrelevant whether the order originated in Thiruvanthapuram or in Mumbai. There is no scope for getting different prices because there are no different markets. It is one common exchange and one common market wherein all investors irrespective of the location transact on equal terms.

Thus the playing field is a level one. In such fully automated screen-based trading system, the market is driven by orders. The system is flexible to all kinds of orders, which as and when they are received, are first time stamped and then immediately processed for potential match. If a match is not found, then the orders are stored in different 'books'. Orders are stored in a priority in various books in the sequence of best price, and within the price, time.

You know now that the best buy order will match with the best sell order. It may also happen that your order may match partially with another order resulting in multiple trades. For computer order matching, the best buy order is the one with highest price and the best sell order is the one with lowest price. This is because the system views all buy orders from the point of view of a seller and all sell orders from the point of view of the buyers in the market. So, of all buy orders available in the market at any point of time, a seller would obviously like to sell at the highest possible buy price that is offered. Hence, the best buy order is the order with highest price and vice-versa.

Your broker can proactively enter orders in the system, which will be displayed in the system till the full quantity of your order is matched on a continuous basis till it results into a trade. Alternatively he can also be reactive and place orders that match the existing orders on the system. Orders lying unmatched in the system are called 'passive' and those, which match the existing orders, are called 'active'. Orders are always matched at the passive order price thus ensuring that earlier orders get priority over orders that come in later.

When you place orders, you can set certain conditions to suit your requirements. You can specify the time, price and or quantity. Let's see how these conditions work.

- You can set a limit like a Day order. This is valid for a day it is entered and if not matched during the day, would get cancelled at the end of the trading day.
- You can also place a Good Till Cancelled (GTC) order. This remains valid until it is matched or cancelled by your broker.
- Another variant of a time specific order is a Good Till Days (GTD) order that permits you to specify the days up to which your order should stay in the system. At the end of this period the order is flushed out from the system.
- You can also place an Immediate or Cancel Order (IOC) to buy or sell. As soon as an IOC order is released into the market, it is either executed if a match occurs or else the order will be removed from the market.
- Like you specify the time, you can also define the price conditions. If you place a Stop Loss (SL) order, it gets activated only when the market price of the relevant security reaches or crosses a threshold price known as the trigger price. Until then the order does not enter the market.
- Another possibility is to specify the quantity. You can place a Disclosed Quantity (DQ) order, which allows your broker to disclose only a part of your total order quantity to the market. For example, you place an order for 100000 shares with a disclosed quantity condition of 1000. Only 1000 is displayed to the market at a time. After this quantity is traded, another 1000 is automatically released till the full order is executed.

3.21.2 Advantages of Screen Based Trading

The screen based trading system is more transparent, flexible and safer to deal with. It has features to monitor the price movement of stocks to prevent rigging or reckless speculation. When an order is placed at a very high or very low price, the order would go to the Exchange as a price freeze alert and will be released into the market only after the Exchange's approval. To prevent wild fluctuations in the stock prices, Exchanges fix limits for intra-day and intra-settlement price movements for various securities. On a given day or settlement period, price of such securities are allowed to fluctuate only within these limits and when they reach the limits a "circuit breaker" is applied to minimize volatility.

In the open cry system you never knew when exactly your order was executed and at what rate. No such worries exist in the screen-based system as it matches orders in such a way that they are executed at the best possible price available on the system. There is no room for human intervention in determining the prices as the process of matching buy and sell orders is done by the computer. Further, the system functions on a price time priority. You always get the best price at a given point of time. It is also not possible for any broker to cheat you by giving you some other client's price. The system generates a unique order number every time an order is placed, which cannot be changed. Similarly when the trade occurs a trade confirmation slip is generated and unique numbers links the order and the trade. All you need to do is to collect your order number from the broker and check this with the trade number to see if the link

is correct. The Exchange maintains records for eight years and you can verify with the Exchange anytime before that.
Screen based trading has brought you another advantage. It has reduced the brokerage rates significantly. As the system is more transparent, safe and accessible to many brokers across the country, competition has driven business volumes up and brokerage rates down. Though SEBI permits a maximum brokerage of 2.5% of the trade value (inclusive of sub-broker's brokerage not exceeding 1.5%), in practice the principal brokers charge you much less. For delivery-based transactions, they charge as low as 0.50% and for Intra-settlement Square up deals, up to 0.15%. If you are dealing through a sub-broker, the rates go up to accommodate sub-broker margins. If you are a regular client or executing deals regularly, rates can be even less. Apart from brokerage, you need to pay service tax @ 10% and a transaction cost if any. Both the brokerage and service tax are indicated separately in the contract note. While brokerage rates are important, while choosing your broker, you should be guided by other considerations as well. Big brokers render many value-added services like sending regular research reports, giving periodic summary statements of transactions etc. If you trade regularly, these services are very essential for you.

3.21.3 Nuisance of Bad Deliveries of Traded Shares

One of the most piquant problems associates with the physical delivery of stocks (as opposed to demat trading) is the nuisance of bad deliveries. When a bad delivery occurs, the aggrieved broker reports it to the clearinghouse within 48 hours of receiving the pay out. The selling broker then picks up the "bad delivered" documents and rectifies or replaces them within the next 48 hours. If he fails to do so, it may result in a short delivery and he has to buy the good stocks in an auction paying a penalty premium. It is very important when buying shares to check whether the shares given to you are good. Similarly, when you are selling shares, it's your responsibility to ensure that they are delivered good.

As already explained, if you do not correct a bad delivery, it may result in an auction. Auction is a mechanism set up by the exchange to fulfill its obligation towards the buying trading members. Exchange resort to auctions in cases of short deliveries, uncorrected bad deliveries or uncorrected company objections. When shares go to an auction under any of these three circumstances, the exchange purchases the requisite quantity from the market and gives them to the original buying member.

If you are not connected in anyway to the transactions that resulted in a bad delivery, which eventually resulted in an auction, but possess some shares that have been referred in the auction, you can use this opportunity to actually sell your holdings in the auction where normally you command a better price for your holdings. But you are required to have these securities "on hand" to be able to immediately deliver to the defaulting member but in any case before the auction securities pay in day. You will receive the money for the shares sold in the auction within 48 hours of the pay out.

What happens to the defaulting broker, if no one offers their shares in the auction to facilitate the exchange to buy them on behalf of the defaulting broker? If the shares could not be bought in the auction, the Exchange squares up the transaction at the highest price on the exchange from the relevant trading period till the auction day or at 20% above the last available closing price whichever is higher.

One of the reasons why shares go to auction is "Company Objections". But what is Company Objection? When you buy the shares and send the certificate along with the transfer deed to the company for registration, some times the Company concerned may reject registration of shares in your name if the signature of the seller differs, if the shares are fake, forged, or stolen, or if there is a court injunction preventing the transfer of the shares etc. When a company objects to the registration, it's the responsibility of the broker who sold the shares to clear them otherwise the shares go to an auction where good lot can be bought to square up the deal.

Apart from the reasons mentioned above, your shares may also be rejected for transfer if there is a stop transfer case pending against the shares. As Stop transfer process may occur when the Company for valid reasons as provided in the Companies Act stops transfer in cases when the securities are reported as missing, lost or stolen by the holder of the securities. Stop transfer is also one of the reasons for company objections, but additionally the company is required to give along with the objection memo supporting documents such as photocopies of the FIR, suit or court order to facilitate the broker concerned to lodge a company objection with the required documents.

When a Company Objection is received the first thing you should do is to submit the Company Objection memo along with the share certificates and other documents received from the company to your broker immediately. The law permits that Company Objection cases can be reported within 12 months from the date of the memo for the original quantity of shares under objection. Once your broker receives the Company Objection memo from you, he has to report to the clearinghouse, there upon it's the responsibility of the broker who first sold the shares to rectify or replace the rejected shares within 21 days. The broker has also the responsibility to pay to you the value of any benefit such as bonus, rights etc., that you may have missed because of the delay in getting your registration due to the company objections.

3.21.4 Transfer of Traded Shares

When the shares are good deliveries and give rise to no objections from the companies, a valid transfer of shares take place in your name thereafter you are the legal owner of the shares you bought. A transfer is complete in the books of the company after the transfer is registered in the share transfer register maintained by the company.

It's important for you to know that a deed of transfer is considered proper only if it is in the prescribed format, dated by the prescribed authority (e.g. Registrar of Companies), and its validity period has not expired, duly stamped @ 0.50% of the trade value of

the shares as on the date of execution of the transfer deed and duly signed by or on behalf of the transferor and transferee and complete in all respects. You have to unsure that the transfer deed is of a recent date and not dated prior to the book closure date. Also, you have to ensure that any other particulars are accurately filled in as contained in the share certificate and if there are any corrections made for the information filled in by the seller, such corrections are properly authenticated by all the sellers.

If you are buying shares for long term, it's important to register your shares with the company otherwise you may lose all the corporate benefits like dividend, bonus, rights etc. that may be announced by the company from time to time. These corporate benefits are given to only those persons whose names appear in the register of members of the company as on the book closure date (or record date) announced by the company.

3.21.5 Grievances Redressal

After you have read all these provisions, it may appear to you that buying and selling of shares is not an easy process. Actually it is. With technology coming to your help and regulatory authorities getting tough on errant brokers, trading in stocks is not any longer a beginner's nightmare. However, should you still face a problem, remember there is help available at hand. The broker client agreement that you sign is a mandatory document that protects your rights and comes to your rescue should something becomes amiss.

Your grievances are easily resolved if your deals are executed through a registered broker of a recognized Stock Exchange. All major stock exchanges have investor grievance cells, which can be accessed for lodging your complaint. It's the responsibility of the stock exchange to quickly look into your grievance and resolve it.

If that is not possible, there is this process of arbitration for attending to the unresolved complaints. Arbitration is a quasi-judicial process that is faster and less expensive way to resolve disputes. Exchange facilitates arbitration process to resolve disputes between the brokers and their clients. Arbitration process normally takes about three to four months, which is considerably faster than other means of redressal.

3.22 Client Code

SEBI made it mandatory for all brokers to use unique client codes for all clients. Brokers shall collect and maintain in their back office the Permanent Account Number (PAN) allotted by Income Tax Department for all their clients. Sub-brokers will similarly maintain the same for their clients. Where an individual client does not have PAN, such a client shall be required to give a declaration to that effect and until the PAN is allotted, such client shall furnish passport number and place and date of issue. Where the client does not have a PAN or a passport, such client shall furnish driving license number, place and date of issue. If none of the above is available, the client shall give his voter ID

number. Until the PAN is allotted, SEBI registration number for FIIs and sub-account shall be used for FIIs (where FII itself is the investing entity) and their sub-accounts, and the unique registration number issued by the relevant regulatory authority shall be used for tax paying body corporate and non-tax paying entities. SEBI registration number followed by any number given by mutual fund to denote Scheme/Plan shall be used for mutual funds.

Brokers shall verify the documents with respect to the unique code and retain a copy of the document. They shall also be required to furnish the above particulars of their clients to the stock exchanges/clearing corporations and the same would be updated every quarter. The stock exchanges shall be required to maintain a database of client details submitted by brokers. Historical records of all quarterly submissions shall be maintained for a period of seven years by the exchanges. The above requirement shall be applicable for clients having order value of Rs.1 lakh or more and shall be enforced with effect from August 01, 2001.

3.23 Contract Note

Contract note is a confirmation of trade(s) done on a particular day for and on behalf of a client. A stockbroker shall issue a contract note to his clients for trades (purchase/ sale of securities) executed with all relevant details as required therein to be filled in. A contract note shall be issued to a client within 24 hours of the execution of the contract duly signed by the stockbroker or his Authorized Signatory or Client Attorney.

No member of a recognized stock exchange shall in respect of any securities enter into any contract as a principal with any person other than a member of a recognized stock exchange, unless he has secured the consent or authority of such person and discloses in the note, memorandum or agreement of sale or purchase that he is acting as a principal. As per Regulation 18 of SEBI (Stock-Brokers & Sub-Brokers) Regulations, 1992, the stockbroker shall preserve the duplicate copy of the contract notes issued for a minimum of five years.

The stockbroker shall ensure that:

- Contract Notes are in the prescribed format,
- Maintain details in the counterfoils of contract notes,
- Stamp duty is paid,
- The service tax charged in the bill is shown separately in the contract note, and
- Contract notes are signed by the stockbroker or by an authorized signatory.

The contract note should contain name and address (registered office address as well as dealing office address) of the stockbroker, the SEBI registration number of the stockbroker, details of trade viz. order number, trade number, trade time, security name, quantity, trade price, brokerage, settlement number and details of other levies. The contract note must contain the clause "Client will hold the security blank at its own risk". Stamp

Duty shall be paid as per the Stamp Act of the relevant state. In Maharashtra, Stamp duty applicable is Re.1 for Rs.10000.

3.24 Price Time Priority

The buy and sell orders are matched on the basis of price-time priority. The best sell order is the order with the lowest price and a best buy order is the order with the highest price. The unmatched orders are queued in the system by the following priority:

1. By Price: A buy order with a higher price gets a higher priority and similarly, a sell order with a lower price gets a higher priority, e.g. consider the following buy orders:

I. 100 shares @ Rs.35 at time 9:30 a.m.
II. 500 shares @ Rs.35.05 at time 9:43 a.m.

The second order price is greater than the first order price and therefore is the best buy order.

2. By Time: If there is more than one order at the same price, the order entered earlier gets a higher priority, e.g. consider the following sell orders:

I. 200 shares @ Rs. 72.75 at time 9:30 a.m.
II. 300 shares @ Rs. 72.75 at time 9:35 a.m.

Both orders have the same price but they were entered in the system at different time. The first order was entered before the second order and therefore is the best sell order.

As and when valid orders are entered or received by the system, they are first numbered, time stamped and then scanned for a potential match. This means that each order has a distinctive order number and a unique time stamp on it. If a match is not found, then the orders are stored in the books as per the price/time priority. An active buy order matches with the best passive sell order if the price of the passive sell order is less than or equal to the price of the active buy order. Similarly, an active sell order matches with the best passive buy order if the price of the passive buy order is greater than or equal to the price of the active sell order.

3.25 Price Bands

Stock market volatility is generally a cause of concern for both policy makers as well as investors. To curb excessive volatility, SEBI has prescribed a system of price bands. The price bands or circuit breakers bring about a coordinated trading halt in all equity and equity derivatives markets nation-wide.

The Exchange has implemented index-based market-wide circuit breakers in compulsory rolling settlement with effect from July 02, 2001. In addition to the circuit breakers,

price bands are also applicable on individual securities. An index-based market-wide circuit breaker system at three stages of the index movement either way at 10%, 15% and 20% has been prescribed. Movement of either S&P CNX Nifty or Sensex, whichever is breached earlier, triggers the breakers.

- In case of a 10% movement of either of these indices, there would be a one-hour market halt if the movement takes place before 1:00 p.m. In case the movement takes place at or after 1:00 p.m. but before 2:30 p.m. there would be trading halt for ½ hour. In case movement takes place at or after 2:30 p.m. there will be no trading halt at the 10% level and market shall continue trading.
- In case of a 15% movement of either index, there shall be a two-hour halt if the movement takes place before 1 p.m. If the 15% trigger is reached on or after 1:00 p.m., but before 2:00 p.m., there shall be a one-hour halt. If the 15% trigger is reached on or after 2:00 p.m. the trading shall halt for remainder of the day.
- In case of a 20% movement of the index, trading shall be halted for the remainder of the day.

These percentages are translated into absolute points of index variations on a quarterly basis. At the end of each quarter, these absolute points of index variations are revised for the applicability for the next quarter. The absolute points are calculated based on closing level of index on the last day of the trading in a quarter and rounded off to the nearest 10 points in case of S&P CNX Nifty.

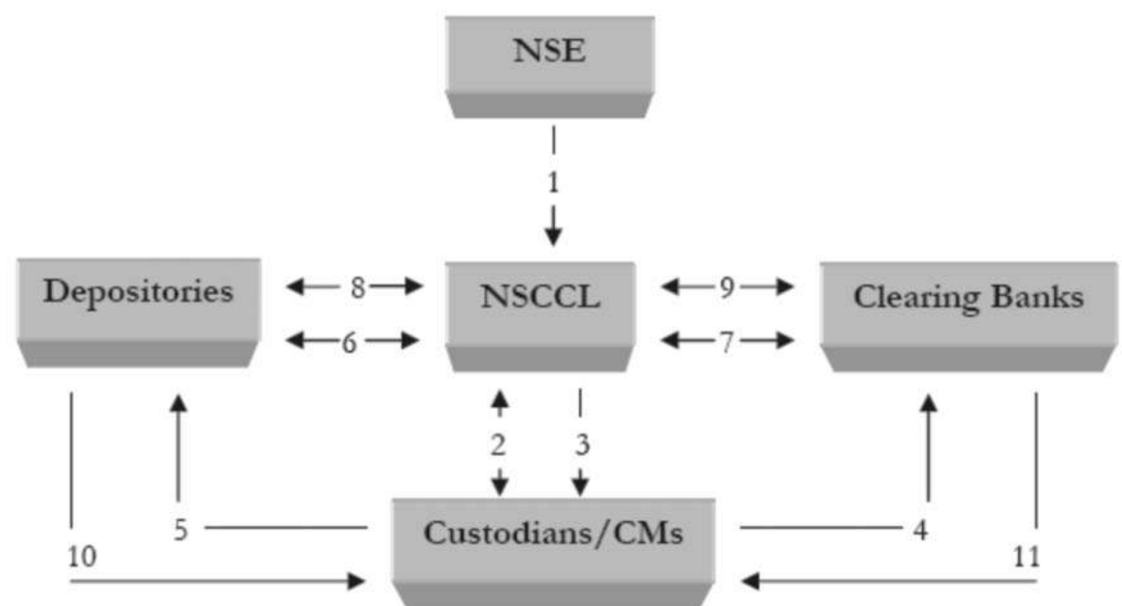
As an additional measure of safety, individual scrip-wise price bands have been fixed as below:

- Daily price bands of 5% (either way) on a set of specified securities depending on volatility,
- Daily price bands of 10% (either way) on another set of specified securities depending on volatility,
- Price bands of 20% (either way) on all remaining securities (including debentures, warrants, preference shares etc., which are traded on CM segment of NSE).
- No price bands are applicable on securities on which derivatives products are available or securities included in indices on which derivatives products are available.
- For Auction market the price bands of 20% are applicable.
- The price bands for the securities in the Limited Physical Market are the same as those applicable for the securities in the Normal Market.

3.26 Clearing and Settlement

The transactions in secondary market pass through three distinct phases, viz., trading,

clearing and settlement. While the stock exchanges provide the platform for trading, the clearing corporation determines the funds and securities obligations of the trading members and ensures that the trade is settled through exchanges of obligations. The clearing banks and the depositories provide the necessary interface between the custodians/ clearing members for settlement of funds and securities obligations of trading members. The clearing process involves determination of what counter-parties owe, and which counter-parties are due to receive on the settlement date, thereafter the obligations are discharged by settlement. The clearing and settlement process for transaction in securities on NSE is presented further.



Explanations:

Stage 1: Trade details from Exchange to NSCCL (real time and end of day trade file).

Stage 2: NSCCL notifies the consummated trade details to Clearing Members or custodians who affirm back. Based on the affirmation, NSCCL applies multilateral netting and determines obligations.

Stage 3: Download of obligation and pay-in advice of funds/securities.

Stage 4: Instructions to clearing banks to make funds available by pay-in time.

Stage 5: Instructions to depositories to make securities available by pay-in-time.

Stage 6: Pay-in of securities (NSCCL advises depository to debit pool account of Custodians or Clearing Members and credit its account and depository does it).

Stage 7: Pay-in of funds (NSCCL advises Clearing Banks to debit account of custodians or Clearing Members and credit its account and clearing bank does it).

Stage 8: Payout of securities (NSCCL advises depository to credit pool account of custodians/Clearing Members and debit its account and depository

does it).

Stage 9: Payout of funds (NSCCL advises Clearing Banks to credit account of custodians/ Clearing Members and debit its account and clearing bank does it).

Stage 10: Depository informs custodians/Clearing Members through Depository Participants.

Stage 11: Clearing Banks inform custodians/Clearing Members.

Several entities, like the clearing corporation, clearing members, and custodians, clearing banks, depositories are involved in the process of clearing. The role of each of these entities is explained below.

3.26.1 Clearing Corporation

The clearing corporation is responsible for post-trade activities such as the risk management and the clearing and settlement of trades executed on a stock exchange.

3.26.2 Clearing Members

Clearing Members are responsible for settling their obligations as determined by the NSCCL. They do so by making available funds and/or securities in the designated accounts with clearing bank/depositories on the date of settlement.

3.26.3 Custodians

Custodians are clearing members but not trading members. They settle trades on behalf of trading members, when a particular trade is assigned to them for settlement. The custodian is required to confirm whether he is going to settle that trade or not. If he confirms to settle that trade, then clearing corporation assigns that particular obligation to him. As on date, there are 11 custodians empanelled with NSCCL. They are ABN Amro N.V., Citibank N.A., Deutsche Bank A.G., HDFC Bank Limited, HSBC Limited, ICICI Limited, IndusInd Bank Limited, IL&FS Limited, Standard Chartered Bank, State Bank of India and SHCIL.

3.26.4 Clearing Banks

Clearing banks are a key link between the clearing members and Clearing Corporation to effect settlement of funds. Every clearing member is required to open a dedicated clearing account with one of the designated clearing banks. Based on the clearing member's obligation as determined through clearing, the clearing member makes funds available in the clearing account for the pay-in and receives funds in case of a payout. There are 11 clearing banks of NSE, viz., Canara Bank, HDFC Bank, IndusInd Bank, ICICI Bank, UTI Bank, Bank of India, IDBI Bank, HSBC Limited, Kotak Mahindra Bank, Standard Chartered Bank and Union Bank of India.

3.26.5 Depositories

Depository holds securities in dematerialized form for the investor in their beneficiary

accounts. Each clearing member is required to maintain a clearing pool account with the depositories. He is required to make available the required securities in the designated account on settlement day. The depository runs an electronic file to transfer the securities from accounts of the custodians/clearing member to that of NSCCL and visa-versa as per the schedule of allocation of securities.

3.26.6 Professional Clearing Member

NSCCL admits special category of members known as professional clearing members (PCMs). PCMs may clear and settle trades executed for their clients (individuals, institutions etc.). In such cases, the functions and responsibilities of the PCM are similar to that of the custodians. PCMs also undertake clearing and settlement responsibilities of the trading members. The PCM in this case has no trading rights, but has clearing rights i.e. he clears the trades of his associate trading members and institutional clients.

3.27 Rolling Settlement

NSCCL clears and settles trades as per the well-defined rolling settlement cycles. All the securities are being traded and settled under T+2 rolling settlement. The NSCCL notifies the relevant trade details to clearing members/custodians on the trade day (T), which are affirmed on T+1 to NSCCL. Based on it, NSCCL nets the positions of counter-parties to determine their obligations. A clearing member has to pay-in/payout funds and/or securities. The obligations are netted for a member across all securities to determine his fund obligations and he has to either pay or receive funds. Members' pay-in/payout obligations are determined latest by T+1 and are forwarded to them on the same day, so that they can settle their obligations on T+2. The securities/funds are paid-in/paid-out on T+2 day to the members' clients' and the settlement is complete in 2 days from the end of the trading day.

Rolling Settlement Cycle

Activity	T+2 Rolling Settlement (From April 1, 2003)
Trading	T
Custodial Confirmation	T+1
Determination of Obligation	T+1
Securities/Funds Pay-in	T+2
Securities/Funds Pay out	T+2
Valuation Debit	T+2
Auction	T+3
Bad Delivery Reporting	T+4
Auction Pay-in/Pay out	T+5
Close Out	T+5
Rectified Bad Delivery Pay-in/Pay out	T+6
Re-bad Delivery Reporting	T+8
Close Out of Re-bad Delivery	T+9

T+1 means one working day after the trade day. Other T+ terms have similar meanings.

3.28 Settlement Guarantee Fund (SGF)

The Settlement Guarantee Fund provides a cushion for any residual risk and operates like a self-insurance mechanism wherein members themselves contribute to the fund. In the event of a trading member failing to meet his settlement obligation, then the fund is utilized to the extent required for successful completion of the settlement. This has eliminated counter-party risk of trading on the Exchange.

As in case of NSCCL, other stock exchanges also have been allowed by the SEBI to use trade guarantee funds (TGFs) maintained by them for meeting the shortages arising out of non-fulfillment/partial fulfillment of funds obligations by members in a settlement before declaring the concerned member a defaulter, subject to the condition that:

- In case where the shortage was in excess of the Base Minimum Capital (BMC), the trading facility of the member was withdrawn and the securities pay out due to the member was withheld,
- In case where the shortage exceeded 20% of the BMC and was less than the BMC on six occasions within a period of three months, the trading facility of the member was withdrawn and the securities pay out to the member was withheld.

On recovery of the complete shortages, the member would be permitted to trade with a reduced exposure.

3.29 Margins

A sound risk management system is integral to an efficient clearing and settlement system. The clearing corporation ensures that trading members' obligations are commensurate with their net worth. It has put in place a comprehensive risk management system, which is constantly being monitored and upgraded to prevent market failures. It monitors the track record and performance of members in terms of their net worth, positions and exposure with the market, collect margins. If the prescribed limits on positions and exposures are breached, then automatically the members are disabled. To safeguard the interest of the investors, NSE administers an effective market surveillance system to detect excessive volatility and prevents price manipulation by setting up price bands. Further, the exchange maintains strict surveillance over market activities in illiquid and volatile securities. The robustness of the risk management system has been amply proved by the timely and default free settlement even on extreme volatile days like May 14th and 17th 2004 where the market benchmark index moved down by almost 7.87% and 12.24% respectively.

The risk containment measures have been repeatedly reviewed and revised to be up to date with the market realities. This section however discusses the measures prevailing as in June 2005.

3.29.1 Margin Requirements

NSCCL imposes stringent margin requirements as part of its risk containment measures. The categorization of stocks for imposition of margins is as given below:

- The stocks, which have traded at least 80% of the days during the previous 6 months should constitute as the Group I and Group II.
- Out of the scrips identified above, those having mean impact cost of less than or equal to 1% should be under Group I and the scrips where the impact cost is more than 1, should be under Group II.
- The remaining stocks should be under Group III.
- The impact cost should be calculated on the 15th of each month on a rolling basis considering the order book snapshots of the previous six months. On the basis of the calculated impact cost, the scrip should move from one group to another group from the 1st of the next month. The impact cost is required to be calculated for an order value of Rs.1 lakh.
- For securities that have been listed for less than six months, the trading frequency and the impact cost shall be computed using the entire trading history of the security.
- A newly listed security is categorized in that Group where the market capitalization of the newly listed security exceeds or equals the market capitalization of 80% of the securities in that particular group. Subsequently, after one month, whenever the next monthly review is carried out, the actual trading frequency and impact cost of the security is computed, to determine the liquidity categorization of the security.
- In case any corporate action results in a change in ISIN, then the securities bearing the new ISIN are treated as newly listed security for group categorization.

The daily margin is the sum of Mark to Market Margin (MTM margin), Extreme loss margin and Value at Risk-based Margin (VaR-based margin). VaR margin is applicable for all securities in rolling settlement.

3.29.2 VaR based Margins

VaR margin is a margin intended to cover the largest loss that can be encountered on 99% of the days (99% Value at Risk). For liquid securities the margin covers one-day losses while for illiquid securities, it covers three-day losses so as to allow the clearing corporation to liquidate the position over three days. This leads to a scaling factor of square root of three for illiquid securities. For liquid securities, the VaR margins are based only on the volatility of the security while for other securities, the volatility of the market index is also used in the computation. Computation of the VaR margin requires the following definitions:

- Security sigma means the volatility of the security computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- Security VaR means the higher of 7.5% or 3.5 security sigma.
- Index sigma means the daily volatility of the market index (S&P CNX Nifty or BSE Sensex) computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- Index VaR means the higher of 5% or 3 index sigma. The higher of the Sensex VaR or Nifty VaR would be used for this purpose.

NSCCL stipulates security specific margins for the securities from time to time. The VaR Margins are specified as follows for different groups of securities:

Liquidity Categorization	One-Day VaR	Scaling factor for illiquidity	VaR Margin
Liquid Securities (Group I)	Security VaR	1.00	Security VaR
Less Liquid Securities (Group II)	Higher of Security VaR and three times Index VaR	1.73 (v3)	Higher of 1.73 times Security VaR and 5.20 times Index VaR
Illiquid Securities (Group III)	Five times Index VaR	1.73 (v3)	8.66 times Index VaR

The VaR based margin shall be rounded off to the next higher integer (For e.g., if the VaR based margin rate is 10.01, it would be rounded off to 11.00) and capped at 100%.

The VaR margin rate computed as mentioned above will be charged on the net outstanding position (buy value minus sell value) of the respective clients on their securities across all open settlements. The net position at a client level for a member are arrived thereafter it is grossed across all the clients of a member to compute gross exposure for margin calculation for him.

3.29.3 Mark-to-Market Margin

Mark to market margin is computed on the basis of market-to-market loss of a trading member clearing member. Mark to market loss is the notional loss, which the member would incur in case the cumulative net outstanding position in all securities at the closing price of the securities as announced at the end of the day by the NSE. Mark to market margin is calculated by making each transaction in scrip to the closing price of the scrip at the end of trading. In case the security has not been traded on a particular day, the latest available closing price at the NSE is considered as the closing price. In the

event of the net outstanding position of a member in any security being nil, the difference between the buy and sell values would be considered as notional loss for the purpose of calculating the mark to market margin payable.

MTM profit/loss across different securities within the same settlement is set off to determine the MTM loss for a settlement. The MTM losses for settlements are computed at client level.

Non-payment of the margin attracts penal charge @ 0.07% per day of the amount not paid throughout the period of non-payment. Trades done by trading members on behalf of institutions are, however, exempt from margin and exposure requirements.

3.29.4 Extreme Loss Margin

The Extreme Loss Margin for any security shall be higher of:

- 5%, or
- 1.5 times the standard deviation of daily logarithmic returns of the security price in the last six months. This computation shall be done at the end of each month by taking the price data on a rolling basis for the past six months. The resulting value shall be applicable for the next month.

The Extreme Loss Margin shall be collected/adjusted against the total liquid assets of the member on a real time basis. This margin shall be collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including its proprietary position. There would be no netting off of positions across different settlements. The Extreme Loss Margin collected shall be released on completion of pay-in of the settlement.

3.30 Investor Protection Fund (IPF)

Despite the various efforts taken by the regulators and exchange, some problems do arise. A cushion in the form of Investor Protection Funds (IPFs) is set up by the stock exchanges. The purpose of the IPF is to take care of investor claims, which may arise out of non-settlement of obligations by the trading members. The IPF is also used to settle claims of such investors whose trading member has been declared a defaulter. Further, the stock exchanges have been allowed to utilize interest income earned on IPF for investor education, awareness and research.

The Companies Act, 1956 also provides for an Investor Education and Protection Fund (IEPF) to protect the interests of small shareholders. The fund is utilized for conducting direct education programmes, organizing seminars, promoting research activities and providing legal assistance to genuine investor litigants through investor grievances forums. A committee comprising both government and non-government members manages the fund. The IEPF is constituted from grants received from the government and from the unclaimed dividends, share application money, matured deposits and unclaimed debentures of the corporate.

IEPF provides financial assistance to any organization/entity/person with a viable project proposal on investors' education and protection. The eligible entities are those registered under the Societies Registration Act or formed as Trusts or Incorporated Companies. They should be in existence for a minimum period of 2 years employing a minimum of 20 members and be governed by properly established rules, regulations and or bylaws prior to its date of application for registration. In addition, they should not be a profit making entity. The limit for each entity for assistance would be subject to 5% of budget of IEPF during that financial year and not exceeding 50% of the amount to be spent on the proposed program/activity.

3.31 Do's and Don'ts for Investors

3.31.1 Issue of Securities

Do's	Don'ts
1. Read the Prospectus/Abridged Prospectus and carefully note: • Risk factors pertaining to the issue. • Outstanding litigations and defaults, if any. • Financials of the issuer. • Object of the issue. • Company history. • Background of promoters. • Instructions before making application. 2. In case of any doubt/problem, contact the compliance officer named in the offer document. 3. In case you do not receive physical certificates/ credit to demat account or application money refund, lodge a complaint with compliance officer of issuer company and post issue manager as stated in the offer document.	1. Do not fall prey to market rumors. 2. Do not go by any implicit/ explicit promise made by the issuer or any one else. 3. Do not invest based on Bull Run of the market index/scrips of other companies in same industry/issuer company 4. Do not bank upon the price of the shares of the issuer company to go up in the short run

3.31.2 Investing in Derivatives

Do's	Don'ts
1. Go through all rules, regulations, bye-laws and disclosures made by the exchanges. 2. Trade only through - Trading Member (TM) registered with SEBI or authorized person of TM registered	1. Do not start trading before reading and understanding the Risk Disclosure Documents

with the exchange. 3. While dealing with an authorized person, ensure that the contract note has been issued by the TM of the authorized person only. 4. While dealing with an authorized person, pay the brokerage/payment/margins etc. to the TM only. 5. Ensure that for every executed trade you receive duly signed contract note from your TM highlighting the details of the trade along with your unique client-id. 6. Obtain receipt for collateral deposited with trading Member (TM) towards margin. 7. Know your rights and duties vis-à-vis those of TM/ Clearing Member. 8. Be aware of the risk associated with your positions in the market and margin calls on them. 9. Collect/pay mark to market margins on your futures position on a daily basis from/to your trading member	2. Do not trade on any product without knowing the risk and rewards associated with it.

3.31.3 Collective Investing Scheme (CIS)

Do's	Don'ts
1. Before investing ensure that the entity is registered with SEBI. 2. Read the offer document of the scheme especially the risk factors carefully. 3. Check the viability of the project. 4. Check and verify the background/expertise of the promoters. 5. Ensure clear and marketable title of the property/ assets of the entity. 6. Ensure that the Collective Investment Management Company has the necessary infrastructure to carry out the scheme. 7. Check the credit rating of the scheme and tenure of the rating. 8. Check for the appraisal of the scheme and read the brief appraisal report. 9. Read carefully the objects of the scheme. 10. Check for the promise vis-à-vis performance of the earlier schemes in the offer document. 11. Ensure that CIMC furnishes a copy of the Annual Report within two months from the closure of the financial year. 12. Note that SEBI cannot guarantee or undertake the repayment of money to the investors.	1. Do not invest in any CIS entity not having SEBI registration. 2. Do not get carried away by indicative returns. 3. Do not invest based on market rumors.

3.31.4 Investing in Mutual Funds

Dos	Don'ts
1. Read the offer document carefully before investing. 2. Note that investments in Mutual Funds may be risky. 3. Mention your bank account number in the application form. 4. Invest in a scheme depending upon your investment objective and risk appetite. 5. Note that Net Asset Value of a scheme is subject to change depending upon market conditions. 6. Insist for a copy of the offer document/key information memorandum before investing. 7. Note that past performance of a scheme is not indicative of future performance. 8. Past performance of a scheme may or may not be sustained in future. 9. Keep track of the Net Asset Value of a scheme, where you have invested, on a regular basis. 10. Ensure that you receive an account statement for the money that you have invested. 11. Update yourself on the performance of the scheme on a regular basis.	1. Do not invest in a scheme just because somebody is offering you a commission or other incentive, gift etc. 2. Do not get carried away by the name of the scheme/ Mutual Fund. 3. Do not fall prey to promises of unrealistic returns. 4. Do not forget to take note of risks involved in the investment. 5. Do not hesitate to approach concerned persons and then the appropriate authorities for any problem. 6. Do not deal with any agent/ broker dealer who is not registered with Association of Mutual Funds in India (AMFI).

3.31.5 Dealing with Brokers & Sub-brokers

Dos	Don'ts
1. Deal only with SEBI Registered intermediaries. 2. Ensure that the intermediary has a valid registration certificate. 3. Ensure that the intermediary is permitted to transact in the market. 4. State clearly who will be placing orders on your behalf. 5. Insist on client registration form to be signed by the intermediary before commencing operations. 6. Enter into an agreement with your broker or sub-broker setting out terms and conditions clearly. 7. Insist on contract note/confirmation memo for trades done each day.	1. Do not deal with unregistered intermediaries. 2. Do not pay more than the approved brokerage to the intermediary. 3. Do not undertake deals for others. 4. Do not neglect to set out in writing, orders for higher value given over phone. 5. Do not sign blank delivery instruction slip(s) while

8. Insist on bill for every settlement. 9. Ensure that broker's name, trade time and number, transaction price and brokerage are shown distinctly on the contract note. 10. Insist on periodical statement of accounts. 11. Issue cheque/drafts in trade name of the intermediary only. 12. Ensure receipt of payment/deliveries within 48 hours of payout. 13. In case of disputes, file written complaint to intermediary/ Stock exchange/ SEBI within a reasonable time. 14. In case of sub-broker disputes, inform the main broker about the dispute within 6 months. 15. Familiarize yourself with the rules, regulations and circulars issued by stock exchanges/ SEBI before carrying out any transaction.	accept contract note/ confirmation memo signed by any unauthorized person. 8. Don't delay payment/ deliveries of securities to broker/sub-broker. 9. Don't get carried away by luring advertisements, if any. 10. Don't be lad by market rumors or get into shady transactions.

3.31.6 Stock Market Glossary

Let's take a quick tour of the various stock market terms to understand the meaning and their importance.

Equity Shares

An equity share in a company is a share in its ownership. Equity shareholders collectively constitute the ownership of the company and enjoy the fruits of ownership like dividends and voting in the meetings etc., but they are not liable for the debts of the company beyond the value that has already been subscribed through the share capital.

However, certain shares do not carry ownership privileges like voting in the meetings etc. These shares are either Preferential or non-voting shares. But Preferential shareholders get assured dividends if the company makes profits and they would get back their money invested after a specified period of time. Equity shareholders cannot redeem their investment in shares except by selling them at market prices to some other investors.

You can buy equity or preferential shares either in the primary market, i.e. when a company invites subscriptions from the general public through a public issue. Or you can buy in the secondary market, i.e. after the public issue when the share obtain listing in a stock exchange and through a broker of that stock exchange. Depending on the market appeal, shares are also called by different names.

Blue Chip Shares

Shares of large, financially strong and well-established companies which have stood up against all kinds of market conditions and which have a good profitability and dividend

track record are referred to as blue chip stocks. The volume of trading in these stocks is high and they enjoy any time liquidity in the exchange.

Growth Shares

These are shares of companies that have out-performed others in the industry. Shares of such companies grow at a rate faster than others in terms of sales and profitability.

Growth shares may be either fully-priced or even over-priced as investors buy these fancied stocks on expectations of even further growth. Sometimes the expected growth may not take place due to adverse internal and external factors, but generally these stocks give quick returns as compared to the value stocks.

Value Stocks

Value stocks are those that currently have a low market sentiment and are under-priced relative to their intrinsic worth. A major advantage of investing in value stocks is that it limits the downside risk of the portfolio since their prices may not dip further. On the flip side, however, the market may not take cognizance of the stock's potential worth for a long time in which case, the investor will have to hold them for a long period of time till its full worth is realized.

Defensive Shares

These stocks are generally neutral to business cycles. These shares have low fluctuations in their prices and are fairly stable. If you expect a downtrend in the economy, it may be a good idea to pick up defensive stocks so that your portfolio values may not erode. At present, stocks of FMCG and Pharma companies fall under this category.

Cyclical Shares

These shares are in commodity companies and their prices depend on cyclical fluctuations of the economy. If the economy is doing well, they appreciate otherwise, their prices would fall. Stocks of Cement, Steel and Petrochemical companies fall under this category.

Speculative Shares

Some shares tend to fluctuate widely in a short span of time on expectations of some major deals coming through in the companies that have issued them. For example, if markets expect a foreign tie-up, a merger or even an acquisition, the prices of their stocks rise to dizzy heights but may fall equally abruptly if the expected turn of events does not take place.

Turnaround Shares

These are shares in companies that have large accumulated losses but which show signs of recovery or making profits. Some examples of such stocks belong to those companies, which report profits for the first time after a long span of time.

Stock Quotes

Share prices both in BSE and NSE are regularly reported in all Business Newspapers, periodicals and on TV. Stock quotes are mostly reported as follows:

Company Price	[Vol. ,Val. ,(Rs.'000s,) Trades]	P/E	52-Wk H/L
Asian Paints (348.50) 348, 350, 335, 336	26482, 9034.06, 269	17.5	365/195
(344.30) 343.20, 347.10, 335.10, 336.85	12350, 4212.48, 181	17.6	375/196

BSE quotation is mentioned in the first line and the second line shows the rates on the NSE. The number in round brackets (348.50) next to the company's name in the closing price of the previous trading day. The next four numbers represent the opening, high, low and closing price for the day. The three numbers in the square bracket 26482, 9034.06, 269 represent the volume of shares traded, the value of the trades in '000s and the number of trades respectively. The number in the next column (17.5) is the Price - Earnings multiples for the company and the last column (365/195) shows the highest and lowest price for the stock in the preceding 52 weeks.

Book Closure and Record Date

Ownership in shares traded in the stock markets keeps changing hands amongst investors through buy and sell transactions. When corporate benefits like dividend, rights or bonus are announced, it becomes necessary to identify the owner at that given point of time so that only such owners can receive the corporate benefits. Problems arise because shares are often held by different buyers without sending them for registration to the company for registration. But to receive the benefits announced by the company, an investor needs to send them for registration. To facilitate this registration, companies usually announce cut-off dates from time to time. Only those members listed in the company's share register, as on such cut-off dates would alone be entitled to receive the corporate benefits. Such cut-off dates are referred to as Book Closure and Record Dates. Let's look at an example:

Company	Book Closure (BC)/ Record Date (RD)		No Delivery Period		Ex-date	Purpose
	Start date	End date	Start date	End date		
XYZ	6th Jul 2006	30th Jul 2006	12th Jun 2006	9th Jul 2006	12th Jun 2006	Bonus 3:5 & Dividend @40% (BC)
ABC	3rd Jan 2006	3rd Jan 2006	13th Dec 2005	26th Dec 2005	13th Dec 2005	Interim dividend @ 30% (RD)

XYZ Company declares bonus (shares in the ratio of 3:5 i.e. 3 shares for every 5 held) 3:5 and dividend @ 40% for its shareholders. To determine the number of members entitle to receive these benefits, it announces Book Closure (BC) dates from 6th July to 30th July 2006. During this period, the company has closed its register of shareholders. New buyers of XYZ Company shares who had not registered their share transactions in the company's shares earlier were allowed to lodge them for transfer till 5th July' 2006. The exchange announced a No Delivery Period from 12th June to 9th July 2006 before the book closure during which period, trading was permitted in the securities but the trades were settled only after 9th July.

Hence, buyer of the shares during the No Delivery Period was not eligible for the bonus 3:5 and 40% dividend. This is done to ensure that investor's entitlement for corporate benefits is clearly determined. The first day of the No Delivery Period is considered as an Ex date since the buyer of the shares is not eligible for the corporate benefits for this period of Book Closure. If there are any corporate benefits such as rights, bonus, dividend etc., announced for which book closure/record date is fixed, the buyer of the shares on or after the Ex date will not be eligible for such benefits.

What is the difference between book closure and the record dates? The same logic holds good for record date but there are two main differences; one, in case of a record date, the company does not close its register of shareholders but only fixes a cut-off date (3rd Jan, 2006 in the above example) for determining the number of its registered members eligible for the corporate benefits (interim dividend @ 30%, in the same example). Two, in case of a book closure, shares cannot be sold in an exchange with a date on the transfer deed earlier than the book closure date. This is not applicable to a record date.

Cum-Dividend And Ex-Dividend

When you buy with cum dividend (or cum bonus or cum rights or other benefits), you are entitled for the dividend, bonus shares or rights for which the books are about to be closed.

When you buy the shares ex dividend (or ex bonus or ex rights or other benefits), you are not entitled to these benefits but the previous owner would be entitled to them. Irrespective of whether you are buying cum or ex, the price you pay for the security would have normally got adjusted for the corporate benefits you may or may not immediately receive on the shares bought.

Stock Market Indices

Stock market indices are numbers that measure the general movement of the market. They represent the entire market or segments thereof. Presently the most popular index in the Indian markets is the Sensex (Sensitive Index) of the Bombay Stock Exchange which reflects the price movements of 30 selected shares on the BSE. The Sensex at any time reflects the aggregate market value of these 30 shares relative to the average aggregate market value in the base year 1978-79.

S&P CNX Nifty is an index developed by National Stock Exchange (in collaboration with Standard & Poor, a rating agency in USA) to reflect the price movement of 50 shares on the NSE. These 50 shares have been selected on the basis of market capitalization and liquidity. The base price for this index is the closing price on November 3, 1995.

Natex (or National Index) is another index developed by BSE, which is more broad-based index than the Sensex. Natex reflects the price movements of 100 actively traded shares of five major exchanges viz. Bombay, Calcutta, Delhi, Ahmedabad and Madras. Their base year is 1983. Whether the stock market is depressed or buoyant is reflected by either the downward or upward movement respectively of these indices.

Good or Bad Delivery

When shares are sold in the stock exchange, the seller delivers the shares along with a transfer deed to the buyer through his broker. Bad delivery refers to cases where the transfer deed or share certificate may have some problem like being torn, mutilated, overwritten, defaced, or spelling mistakes in the name of the company or the transferor, erasure or crossing out in the characters of the folio numbers, distinctive number range or certificate numbers. Bad delivery may also occur if the transfer deed is improperly stamped. In such cases, the delivery needs to be rectified by the seller's broker within a stipulated time. If the documents are complete and proper, it's a good delivery and the shares can be sent for transfer in the name of the buyer.

Transfer and Transmission

Shares like any other property can change hands by following the due process of law. Ownership of the shares can be transferred from one to another through a sale or gift when accompanied by a transfer deed. Otherwise, it can also be transmitted from one person to another by operation of the law in case of death or insolvency from the owner to his legal heirs or creditors.

Transfer Deed

Shares can be transferred only when the share certificate along with a proper transfer deed duly stamped and complete in all respects is sent to the issuing company for transfer in the name of the buyer. A transfer is complete in the books of the company after the transfer is registered in the share transfer register maintained by the company.

Settlement

At the end of a trading period, the obligations of each broker are calculated and the brokers settle their respective obligations as per the rules, bye-laws and regulations prescribed. This process is called Settlement.

Auction

When a broker selling shares defaults on the delivery, the exchange resorts to a mechanism

called auction to fulfill its obligation towards the broker buying the shares. In a particular settlement, if the selling brokers have delivered short (i.e. shares fewer than what they have sold), their deliveries are bad or if they have not rectified the company's objections reported against them, the stock exchange purchases the requisite quantity from the market through an auction and delivers them to the original member (i.e. buying party).

Company Objections

When investors send share certificates along with the transfer deeds to the company for registration, the registration is sometime rejected if the signature differs, shares are fake, forged or stolen, or if there is a court injunction preventing the transfer of the shares etc. In such cases, the company returns the shares along with a letter stating its objections. Such cases are identified as Company Objections.

Stock Lending

Stock lending is a mechanism through which a seller going short borrows stocks to meet his obligations. The present stock-lending scheme announced by SEBI is similar to badla in certain aspects, but the main distinction is that mutual funds can lend stocks while in badla they cannot participate. However, there is no provision for a long buyer to obtain funds through the stock lending mechanism. It only provides for the lending of securities for a price mainly to short sellers. The lender of the scrip earns additional returns by lending his stocks for a specified period to those who need them to discharge their delivery obligations. With the introduction of derivatives in the market, stock lending would help broad base the market.

Key Terms Introduced in the Chapter

- Turnover
- Warrants
- Liquidity
- Day Order
- Client Code
- GoI Bonds
- Depositories
- Brokers
- Brokerage
- Price Bands
- Underwriters
- Sensex
- Margins
- Free Pricing
- OTC Listing
- Stamp Duty
- Firm Basis
- Impact Cost
- Base Year
- Auction
- Mutual Funds
- Clearing Banks
- Grievance Cell
- Daily Volatility
- Balance Sheet
- Bonus Shares
- Market Depth
- Floating Stock
- Dematerialization
- Rematerialization
- Demutualisation
- Bad Deliveries
- Contract Note
- VaR Margins
- Growth Shares
- Value Stocks

- Defensive Shares
- Cyclical Shares
- Blue Chip Shares
- Stock Lending
- Primary Dealers
- Corporate Brokers
- Rolling Settlement
- Listed Companies
- Company Objection
- Licensed Dealers
- Base Capitalization
- Initial Index Value
- S&P CNX Nifty
- S&P CNX Defty
- S&P CNX 500
- CNX Nifty Junior
- CNX Mid-cap
- Floor Trading
- Stock Exchanges
- Governing Board
- Stop Loss Order
- Clearing Members
- Speculative Shares
- Transfer Deed
- Outstanding Securities
- Listing Requirements
- Transfer of Shares
- Price Time Priority
- Clearing and Settlement
- Market Capitalization
- Merchant Bankers
- Debenture Trustees
- Preferential Allotment
- Investor Protection
- Depository Participants
- Hedging Effectiveness
- CNX Segment Indices
- CNX IT Sector Index
- Good till Cancelled Order
- Good Till Days Order
- Mark-to-Market Margins
- Extreme Loss Margin
- Turnaround Shares
- Stock Quotes
- Open Outcry System
- Screen Based Trading
- Book Entry Segment
- Ministry of Finance
- Deep Discount Bond
- Share Price Indices
- Price Weighted Index
- Equally Weighted Index
- Venture Capital Funds
- Bankers to an Issue
- Credit Rating Agencies
- Disclosed Quantity Order
- Investor Protection Fund
- Cum and Ex-Dividend
- NSE
- BSE
- OTCEI
- NEAT
- BOLT
- SEBI
- NSDL
- CDSL
- FII
- NSCCL
- IISL
- NSE.IT
- NCDEX
- Securities Appellate Tribunal
- Market Capitalization Index
- Immediate or Cancel Order
- Fully Convertible Debentures
- Partially Convertible Debentures
- Self-regulating Organizations
- Employee's Stock Option
- Customer's Protection Fund
- Interconnected Stock Exchange
- Client Registration Application Form
- Member Constituent Agreement
- Professional Clearing Member
- Settlement Guarantee Fund
- Book Closure and Record Date

Summary with Reference to Learning Objectives

- Stock means ownership. As an owner, you have a claim on the assets and earnings of a company as well as voting rights with your shares.
- You can lose all of your investment with stocks. The flip side of this is you can make a lot of money if you invest in the right company.
- Outstanding securities are traded in the secondary market.
- Stock Markets are places where buyers and sellers of stock meet to trade. The NSE and BSE are the most important exchanges in India.
- The Ministry of Finance, SEBI and the Governing Board of the stock exchanges regulate Stock Exchanges.
- Stock indices reflect the stock market behavior.
- The un-weighted price index is a simple arithmetical average of share prices on base date.
- In the wealth index, prices are weighted by market capitalization.
- The indices differ from each other on the basis of the number, the composition of the stock, the weights and the base year.
- BSE sensitive index comprises of 30 scrips on the basis of industry representation, market capitalization, liquidity, the market depth, and the floating stock depth.
- S&P CNX Nifty, CNX Nifty Junior and S&P CNX 500 are some of the indices based on stocks traded on NSE.
- Stock prices changes according to supply and demand. There are many factors influencing prices, the most important being earnings. There is no consensus as to why stock prices move the way they do.
- To invest in stocks you can either use a brokerage firms or a Mutual Fund Equity Investment Scheme.
- Rolling settlement cycle is adopted for compulsory demat trades.
- Intra day price band fixes the price range for a scrip for a trading session.
- Brokers have to deposit daily margins and concentration margin on the amount of transaction undertaken in the stock exchange.
- Stock table/quotes actually aren't that hard to read once you know what everything stands for.
- Bulls make money, Bears make money, but Pigs get slaughtered.

Questions for Practice

Short Answers

1. What is meant by a Stock Exchange?
2. What care should one take while investing?

3. What is an Index?
4. What is a Depository?
5. What is Dematerialization?
6. Who regulates the Secondary Market?
7. Who are the participants in the Secondary Markets?
8. What does Market Capitalization mean?
9. How is a demutualisation exchange different from a mutual exchange?
10. Currently are there any demutualised stock exchanges in India?
11. What is NEAT?
12. What is a Contract Note?
13. What is the maximum brokerage that a broker can charge?
14. How to know if the broker or sub broker is registered?
15. What are the products dealt in the secondary market?
16. What has been the average return on Equities in India?
17. What is Bid and Ask price?
18. What is a Portfolio?
19. What is Diversification?
20. How is depository similar to a bank?
21. Which are the benefits of participation in a depository?
22. Who is a Depository Participant (DP)?
23. Does one need to keep any minimum balance of securities in his account with his DP?
24. What is a Custodian?
25. How can one convert physical holding into electronic holding i.e. how can one dematerialize securities?
26. Can odd lot shares be dematerialized?
27. Can electronic holdings be converted into Physical certificates?
28. Can one dematerialize his debt instruments, mutual fund units, government securities in his demat account?
29. What is a Clearing Corporation?
30. What is Pay-in and Pay out?
31. What is a Book-closure/Record date?
32. What is No-delivery period?
33. What is an Ex-dividend date?
34. What is an Ex-date?
35. What is an Investor Protection Fund?

36. List out the DOs and DON'Ts while dealing with brokers and sub-brokers?
37. List out the DOs and DON'Ts while investing in Mutual Funds?
38. List out the DOs and DON'Ts while investing in Derivatives?
39. List out the DOs and DON'Ts while investing in new issues?
40. What are the agencies involved in clearing and settlement?
41. What does Price Bands mean?
42. What is a Settlement Guarantee Fund?
43. What are the advantages of screen-based trading?
44. Who can become a member of a stock exchange?
45. What are credit rating agencies?
46. What are merchant bankers activities?
47. Who is a portfolio manager?
48. What are Foreign Institutional Investors?
49. List out the requirements of SEBI for providing registration as a stockbroker?
50. Who can become a Sub-broker?

Long Answers

1. Why does Financial Market need Regulators?
2. What is SEBI and what is its role?
3. Is it necessary to transact through an intermediary?
4. What does Listing of Securities mean?
5. What is a Listing Agreement?
6. What does De-listing of securities mean?
7. Does SEBI tag make one's money safe?
8. What is meant by Secondary market?
9. What is the role of the Secondary Market?
10. What is the difference between the Primary Market and the Secondary Market?
11. What is the role of a Stock Exchange in buying and selling shares?
12. What is Demutualisation of stock exchanges?
13. What is Screen Based Trading?
14. How to place orders with the broker?
15. How does an investor get access to internet based trading facility?
16. What details are required to be mentioned on the contract note issued by the stockbroker?
17. Why should one trade on a recognized stock exchange only for buying/selling shares?

18. What precautions must one take before investing in the stock markets?
19. Why should one invest in equities in particular?
20. How can one acquire equity shares?
21. What are the advantages of having a diversified portfolio?
22. What are the benefits of participation in a depository?
23. What is the Nifty Index?
24. What is Rolling Settlement?
25. What is an Auction?
26. What recourses are available to investor/client for redressing his grievances?
27. What is Arbitration?
28. What are margins and why are they required? List out different types of margins imposed on a daily basis?
29. Explain the clearing and settlement process?
30. Explain Price-Time Priority?
31. What are the eligibility criteria for brokers for trading on a stock exchange?
32. Explain the guidelines of the listing agreement entered into by the issuer (company) and the stock exchange?
33. How does S&P CNX Nifty compare with other indices?
34. What do you mean by liquidity? Explain using the concept of Impact cost.
35. Explain the factors that differentiate one index from other?
36. Explain the desirable attributes of an index?
37. Explain the economic significance of a index movement?
38. Elaborate the various methods of index construction?
39. Describe the necessity of a stock exchange in an economy?
40. Explain the growth and evolution of stock exchanges in India?
41. How to choose the right DP?
42. How does the demat system works?
43. Explain the SEBI reforms on stock exchanges?
44. Describe the role of various regulators of the secondary market?
45. Explain the Securities Contracts (Regulation) Act, 1956?

Problems to Solve

1. The market impact cost on a trade of Rs. 3 million of the S&P CNX Nifty works out to be about 0.06%. This means that if S&P CNX Nifty is at 4000, a sell order of that value will go through at a price of ____.

2. Assume that the base value of a market capitalization weighted index were 1000 and the base market capitalization were Rs.30,000 crore. If the current market capitalization is Rs.87,000 crore, the index is at _______.

3. Assume that the base value of a market capitalization weighted index were 1000 and the base market capitalization were Rs.30,000 crore. If the current market capitalization is Rs.1,00,000 crore, the index is at _______.

4. The impact cost on a trade of Rs.3 million of the full Nifty works out to be about 0.25%. This means that if Nifty is at 3000, a buy order will go through at roughly ____.

5. The market impact cost on a trade of Rs.3 million of the full Nifty works out to be about 0.35%. This means that if Nifty is at 4000, a sell order will go through at roughly ________.

CHAPTER 4

Financial Statement Analysis

LEARNING OBJECTIVES

After studying this chapter, you will be able:

- To understand the main types of assets and liabilities in the balance sheet of a company.
- To understand the principal elements in the profit and loss account statement of a company.
- To understand the methods of analyzing the financial statements of a company.
- To analyze the components of a company using trend analysis and other techniques.
- To understand the basic financial ratios to guide your thinking.
- To understand the relationship between the stock market and the economy and to analyze conceptually the determinants of the stock market.
- To assess the significance of industry analysis in the top-down approach to stock analysis before investing in the stocks.
- To recognize how industries are classified and the stages that industries go through over time and to understand the basic tenets of competitive strategy as it applies to industry analysis.
- To analyze companies using the financial and non-financial techniques of fundamental analysis.
- To locate and use the many sources of information about company performance, such as Annual Reports, Director's Reports etc.

In prior chapters, we concentrated on how the financial markets functions, the procedural issues and the products available for investing in these markets. But, how about knowing which company to invest into. This chapter, concentrates on how to collect financial data, and how to prepare and evaluate financial statements.

The accountant's goal in preparing financial statements is to provide usable information to anyone who wants it. Financial statement analysis involves using the information so that we fully understand the story it tells about the company.

Different people read financial statements for different reasons. Suppliers might want to see if a customer can afford a price hike. Customers might want to know if a company will still be around in a year to honor a warranty. Managers, creditors, investors, and the CEO's mother all have their purposes for reading the statements. Our focus is on the investor. Investors read financial statements either to check on their current investments or to plan their future ones. Investors analyze financial statements to determine whether their beliefs about the company have been borne out and to develop expectations about the future.

How do we get the future out of financial statements?

Throughout the chapter we have shown you various ratios and other tools of analysis, so you should have at least a clue as to how it is done. Ratios focus your attention and direct your questions. This chapter integrates some simple tools one should know before investing in a company's equity shares. Most of the chapter deals with ratios and how to understand the financial statements as prepared under Accounting Standard.

4.1 Financial Statements

Financial statements, as used in corporate business houses, refer to a set of reports and schedules, which an accountant prepares at the end of a period of time for a business enterprise. The financial statements are the means with the help of which the accounting system performs its main function of providing summarized information about the financial affairs of the business. These statements comprise Balance Sheet or Position Statement and Profit and Loss Account or Income Statement. Of course to give a full view of the financial affairs of an undertaking, in addition to the above, the business may also prepare a Statement of Retained Earnings and a Statement of Changes in Financial position. In India, every company has to present its financial statements in the form and contents as prescribed under Section 211 of the Companies Act 1956. The significance of these statements is given below:

4.1.1 Balance Sheet or Position Statement

Balance sheet is a statement showing the nature and amount of a company's assets on one side and liabilities and capital on the other. In other words, the balance sheet shows the financial conditions or state of affairs of a company at the end of a given period usually at the end of one-year period. Balance sheet shows how the money has been made available to the business of the company and how the money is employed in the business.

4.1.2 Profit and Loss Account or Income Statement

Earning profit is the principal objective of all business enterprises and Profit and Loss account or Income statement is the document, which indicates the extent of success achieved by a business in meeting this objective. Profits are of primary importance to the Board of directors in evaluating the management of a company, to shareholders or potential shareholders in making investment decisions and to banks and other creditors in judging the loan repayment capacities and abilities of the company. It is because of this that the profit and loss or income statement is regarded as the primary statement and commands a careful scrutiny by all interested parties. It is prepared for a particular period, which is mentioned along with the title of these statements, which includes the name of the business firm also.

4.1.3 Statement of Retained Earnings

This statement is also known as Profit and Loss Appropriation Account and is generally

a part of the Profit and Loss Account. This statement shows how the profits of the business for the accounting period have utilized or appropriated towards reserves and dividend and how much of the same is carried forward to the next period. The term 'retained earnings' means the accumulated excess of earnings over losses and dividends. The balance shown by Profit and Loss Account is to be transferred to the Balance Sheet through this statement after making necessary appropriations.

4.1.4 Statement of Changes in Financial Position

This is a statement, which summarizes for the period, the cash made available to finance the activities of an organization and the uses to which such cash have been put. This statement is also known as Cash Flow Statement, which summarizes the changes in cash inflows and outflows, by showing the various sources and applications of cash.

4.2 Analysis of Financial Statements

Published financial statements are the only source of information about the activities and affairs of a business entity available to the public, shareholders, investors and creditors and the governments. These various groups are interested in the progress, position and prospects of such entity in various ways. But these statements howsoever, correctly and objectively prepared, by themselves do not reveal the significance, meaning and relationship of the information contained therein. For this purpose, financial statements have to be carefully studied, dispassionately analyzed and intelligently interpreted. This enables a forecasting of the prospects for future earnings, ability to pay interest, debt maturities both current as well as long-term and probability of sound financial and dividend policies. According to Myers, "financial statement analysis is largely a study of relationship among the various financial factors in business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements".

Thus, analysis of financial statements refers to the treatment of information contained in the financial statement in a way so as to afford a full diagnosis of the profitability and financial position of the firm concerned.

The process of analyzing financial statements involves the rearranging, comparing and measuring the significance of financial and operating data. Such a step helps to reveal the relative significance and effect of items of the data in relation to the time period and/or between two organizations.

Interpretation, which follows analysis of financial statements, is an attempt to reach to logical conclusion regarding the position and progress of the business on the basis of analysis. Thus, analysis and interpretation of financial statements are regarded as complimentary to each other.

4.2.1 Types of Financial Statement Analysis

A distinction may be drawn between various types of financial analysis either on the

basis of material used for the same or according to the modus operandi of the analysis.

a) According to Nature of the Analyst and the Material used by him

External Analysis : It is made by those who do not have access to the detailed records of the company. This group, which has to depend almost entirely on published financial statements, includes investors, credit agencies and governmental agencies regulating a business in nominal way. The position of the external analyst has been improved in recent times owing to the government regulations requiring business undertaking to make available detailed information to the public through audited accounts.

Internal Analysis : The internal analysis is accomplished by those who have access to the books of accounts and all other information related to business. While conducting this analysis, the analyst is a part of the enterprise he is analyzing. Analysis for managerial purposes is an internal type of analysis and is conducted by executives and employees of the enterprise as well as governmental and court agencies, which may have regulatory, and other jurisdiction over the business.

b) According to Modus Operandi of Analysis

Horizontal Analysis : When financial statements for a number of years are reviewed and analyzed, the analysis is called 'horizontal analysis'. As it is based on data from year to year rather than one date or period of time as a whole, this is also known as 'Dynamic Analysis'. This is very useful for long-term trend analysis and planning.

Vertical Analysis : It is frequently used for referring to ratios developed for one date or for one accounting period. Vertical analysis is also called 'Static Analysis'. This is not very conducive to proper analysis of the firm's financial position and its interpretation, as it does not enable to study data in perspective. This can only be provided by a study conducted over a number of years so that comparisons can be affected. Therefore, vertical analysis is not very useful.

4.2.2 Methods of Analyzing Financial Statements

The analysis of financial statements consists of a study of relationship and trends, to determine whether or not the financial position and results of operations as well as the financial progress of the company are satisfactory or unsatisfactory. The analytical methods or devices, listed below, are used to ascertain or measure the relationships among the financial statements items of a single set of statements and the changes that have taken place in these items as reflected in successive financial statements. The fundamental objective of any analytical method is to simplify or reduce the data under review to more understandable terms.

Analytical methods and devices used in analyzing financial statements are as follows:

a) Comparative Statements

b) Common Size Statements
c) Trend Ratios
d) Ratio Analysis

4.2.2.1 Comparative Statements

These financial statements are so designed as to provide time perspective to the various elements of financial position contained therein. These statements give the data for all the periods stated so as to show:

1. Absolute money values of each item separately for each of the periods stated.
2. Increase and decrease in absolute data in terms of money values.
3. Increase and decrease in terms of percentages.
4. Comparison expressed in ratios.
5. Percentages of totals.

Such comparative statements are necessary for the study of trends and direction of movement in the financial position and operating results. This call for a consistency in the practice of preparing these statements, otherwise comparability may be distorted. Comparative statements enable horizontal analysis of figures.

4.2.2.2 Common-Size Statements

In the comparative financial statements it is difficult to comprehend the changes over the years in relation to total assets, total liabilities and capital or total net sales. This limitation of comparative statements makes comparison between two or more firms of an industry impossible because there is no common base of comparison for absolute figures. Again, for an interpretation of underlying causes of changes over time period a vertical analysis is required and this is not possible with comparative statements.

Common size financial statements are those in which figures reported are converted into percentages to some common base. For this, items in the financial statements are presented as percentages or ratios to total of the items and a common base for comparison is provided. Each percentage shows the relation of the individual item to its respective total.

4.2.2.3 Trend Ratios

Trend Ratios can be defined as index numbers of the movements of the various financial items in the financial statements for a number of periods. It is a statistical device applied in the analysis of financial statements to reveal the trend of the items with the passage of time. Trend ratios show the nature and rate of movements in various financial factors. They provide a horizontal analysis of comparative statements and reflect the behavior of various items with the passage of time. Trend ratios can be graphically presented for a better understanding by the management. They are very useful in predicting the behavior of the various financial factors in future. However, it should be noted that

conclusions should not be drawn on the basis of a single trend. Trends of related items should be carefully studied, before any meaningful conclusion is arrived at. Since trends are sometimes significantly affected by externalities, i.e. reasons extraneous to the organizations, the analyst must give due weight age to such extraneous factors like government policies, economic conditions, changes in income and its distribution, etc.

To gain insight into which direction the company is moving, a trend analysis should be performed. A trend analysis indicates a firm's performance over time and reveals whether its position is improving or deteriorating relative to other companies in the industry. A trend analysis requires that a number of different ratios be calculated over several years and plotted to yield a graphic representation of the company's performance.

Computation of trend percentages: For calculation of the trend of data shown in the financial statements, it is necessary to have statements for a number of years, and then proceed as under:

1. Take one of the statements as the base with reference to which all other statements are to be studied. In selection of the best statement, it should be noted that it belongs to a 'normal' year of business activities. Statement relating to an 'abnormal' year should not be selected as base, otherwise the trend calculated will be meaningless.
2. Every item in the base statement is stated as 100.
3. Trend percentage of each item in other statement is calculated with reference to same item in the base statement by using the following formula:

   {Absolute Value of item (say cash) in other statements / Absolute Value of same item (cash) in base statement} * 100

Illustration: From the following information extracted from the Balance Sheets of ... Company Ltd. for four previous financial years; calculate the trend percentages taking 2002-03 as the base year:

	2002-03	2003-04	2004-05	2005-06
				(Rs. In lakhs)
Current Assets:				
Cash	200	240	400	220
Bank	260	300	200	240
Debtors	400	600	1,000	1,600
Stock	800	1,200	1,800	2,000
Fixed Assets:				
Building	1,000	1,200	1,200	1,200
Plant and Machinery	2,000	2,400	2,400	2,800
	4660	**5,940**	**7,000**	**8,060**

	2002-03	2003-04	2004-05	2005-06
		(Trend percentage)		
Current Assets:				
Cash	100	120.00	200.00	110.00
Bank	100	115.38	76.92	92.30
Debtors	100	150.00	250.00	400.00
Stock	100	150.00	225.00	250.00
Fixed Assets:				
Building	100	120.00	120.00	120.00
Plant and Machinery	100	120.00	120.00	140.00
	100	**127.46**	**150.21**	**172.96**

Limitations of trend ratios: It should be noted that trend ratios are not calculated for all items. They are calculated only for logically connected items enabling meaningful analysis. For example, trend ratios of sales become more revealing when compared with the trend ratios of fixed assets, cost of goods sold and operating expenses. Trend ratios have the following limitations:

1. If the accounting practices have not been consistently followed year after year, these ratios become incomparable and thus misleading.

2. Trend ratios do not take into consideration the price level changes. An increasing trend in sales might not be the result of larger sales volume, but may be because of increased sales price due to inflation. In order to avoid this limitation, figures of the current year should be first adjusted for price level changes from the base year and then the trend ratios are calculated.

3. Trend ratios must be always read with absolute data on which they are based; otherwise the conclusions drawn may be misleading. It may be that a 100% change in trend ratio may represent an absolute change of Rs.1,000 only in one item, while a 20% change in another item may mean an absolute change of Rs.100,000.

4. The trend ratios have to be interpreted in the light of certain non-financial factors like economic conditions, government policies, management policies etc.

4.2.2.4 Ratio Analysis

An absolute figure often does not convey much meaning. Generally, it is only in the light of other information that significance of a figure is realized. A weighs 70 kg. Is he fat? One cannot answer this question unless one knows A's age and height. Similarly, a company's profitability cannot be known unless together with the amount of profit and the amount of capital employed. The relationship between the two figures expressed arithmetically is called a ratio. The ratio between 4 and 10 is 0.4 or 40% or 2:5. "0.4", "40%" and "2:5" are ratios. Accounting ratios are relationships; expressed in arithmetical

terms, between figures, which have a cause, and effect relationship or which are connected with each other in some other manner.
Accounting ratios are a very useful tool for grasping the true message of the financial statements and understanding them. Ratios naturally should be worked out between figures that are significantly related to one another. Obviously no purpose will be served by working out ratios between two entirely unrelated figures, such as discount on debentures and sales. Ratios may be worked out on the basis of figures contained in the financial statements.

Ratios provide clues and symptoms of underlying conditions. They act as indicators of financial soundness, strength, position and status of an enterprise.

Interpretation of ratios forms the core part of ratio analysis. The computation of ratio is simply a clerical work but the interpretation is a taste requiring art and skill. The usefulness of ratios is dependent on the judicious interpretations.

Uses of ratios: A comparative study of the relationship, between various items of financial statements, expressed as ratios, reveals the profitability, liquidity, solvency as well as the overall financial position of the enterprises.

Ratio analysis helps to analyze and understand the financial health and trend of a business, its past performance makes it possible to have forecast about future state of affairs of the business. Inter-firm comparison and intra-firm comparison becomes easier through the analysis. Past performance and future projections could be reviewed through ratio analysis easily. Management uses the ratio analysis in exercising control in various areas viz. budgetary control, inventory control, financial control etc. and fixing the accountability and responsibility of different departmental heads for accelerated and planned performance. It is useful for all the constituents of the company as discussed under:

1. **Management :** Management is interested in ratios because they help in the formulation of policies, decision-making and evaluating the performances and trends of the business and its various segments.

2. **Shareholders:** With the application of ratio analysis to financial statements, shareholders can understand not only the working and operational efficiency of their company, but also the likely effect of such efficiency on the working and operational efficiency of their company, but also the likely effect of such efficiency on the net worth and consequently the price of their shares in the Stock Exchange. With the help of such analysis, they can form opinion regarding the effectiveness or otherwise of the management functions.

3. **Investors:** Investors are interested in the operational efficiency, earning capacities and 'financial health' of the business. Ratios regarding profitability, debt-equity, fixed assets to net worth, assets turnover, etc., are some measures useful for the investors in making decisions regarding the type of security and industry in which they should invest.

4. **Creditors:** Creditors can reasonably assure themselves about the solvency and liquidity position of the business by using ratio-analysis. Such analysis helps to throw light on the repayment policy and capability of an enterprise.

5. **Government:** The Government is interested in the 'financial health' of the business. Carefully worked ratios will reflect the policy of the management and its consistency or otherwise with the overall regional and national economic policies. Such ratios help in better understanding of cost-structures and may justify price controls by the Government to save the consumers.

6. **Analysts:** Ratio analysis is the most important technique available to the financial analysts to study the financial statements to compare the progress and position of various firms with each other and vis-à-vis the industry.

Classification of ratios: Different ratios calculated from different financial figures carry different significance for different purposes. For example, for the creditors liquidity and solvency ratios are more significant than the profitability ratios, which are of prime importance for an investor. This means that ratios can be grouped on different basis depending upon their significance. The classification is rather crude and unsuitable to determine the profitability or financial position of the business. In general, accounting ratios may be classified on the following basis leading to overlap in many cases.

1. **According to the statement upon which they are based:** Ratios can be classified into three groups according to the statements from which they are calculated:

   a) Balance Sheet Ratios: They deal with relationship between two items appearing in the balance sheet, e.g., current assets to current liability or current ratio. These ratios are also known as financial position ratios since they reflect the financial position of the business.

   b) Operating Ratios or Profit and Loss Ratios: These ratios express the relationship between two individual or group of items appearing in the income or profit and loss statement. Since they reflect the operating conditions of a business, they are also known as operating ratios, e.g., gross profit to sales, cost of goods sold to sales, etc.

   c) Combined Ratios: These ratios express the relationship between two items, each appearing in different statements, i.e., one appearing in balance sheet while the other in income statement, e.g., return on investment (net profit to capital employed); Assets turnover (sales) ratio, etc. Since both the statements are involved in the calculation of each of these ratios, they are also known as inter-statement ratios.

Since the balance sheet figures refer to one point of time, while the income statement figures refer to events over a period of time, care must be taken while calculating combined or inter-statement ratios. For example while computing assets turnover ratio, average assets should be taken on the basis of opening and ending balance sheets.

2. **Functional classification:** The classification of ratios according to the purpose of its computation is known as functional classification. On this basis ratios are categorized as follows:

   a) **Profitability Ratios:** A Profitability ratio gives some yardstick to measure the profit in relative terms with reference to sales, assets or capital employed. These ratios highlight the end result of business activities. The main objective is to judge the efficiency of the business.

   b) **Turnover Ratios or Activity Ratios:** These ratios are used to measure the effectiveness of the use of capital/assets in the business. These ratios are usually calculated on the basis of sales or costs of goods sold and are expressed in integers rather than as percentages.

   c) **Financial Ratios or Solvency Ratios:** These ratios are calculated to judge the financial position of the organization from short-term as well as long-term solvency point of view. Thus, it can be sub-divided into: (a) Short-term Solvency Ratios (Liquidity Ratios) and (b) Long-term Solvency Ratios (Capital Structure Ratios).

   d) **Market Test Ratios:** These are of course, some profitability ratios, having a bearing on the market value of the shares.

3. **Classification according to "importance":** The British Institute of Management has recommended this classification for inter-firm comparisons. It is based on the fact that some ratios are more relevant and important than others in the process of comparisons and decision-making. Therefore, ratios may be treated as primary or secondary.

   a) **Primary Ratio:** Since profit is primary consideration in all business activities, the ratio of profit to capital employed is termed as 'Primary Ratio'. In business world this ratio is known as "Return on Investment". It is the ratio which reflects the validity or otherwise of the existence and continuation of the business unit. In case if this ratio is not satisfactory over long period, the business unit cannot justify its existence and hence, should be closed down. Because of its importance for the very existence of the business unit it is called 'Primary Ratio'.

   b) Secondary Ratios: these are ratios, which help to analyze the factors affecting "Primary Ratio". These may be sub-classified as under:

   (i) Supporting Ratios: These are ratios, which reflect the profit-earning capacities of the business and thus support the "Primary Ratio". For example sales to operating profit ratio reflects the capacity of contribution of sales to the profits of the business. Similarly, sales to assets employed reflect the effectiveness in the use of assets for making sales, and consequently profits.

   (ii) Explanatory Ratios: These are ratios, which analyze and explain the factors

responsible for the size of profit earned. Gross profit to sales, cost of goods sold to sales, stock-turnover, debtors turnover are some of the ratios, which can explain the size of the profits earned. Where these ratios are calculated to highlight the effect of specific activity, they are termed as 'Specific Explanatory Ratios'. For example, the effect of credit and collection policy is reflected by debtors' turnover ratio.

The classification of the structure of ratio analysis cuts across the various bases on which it has been made. The determinations of activity and profitability ratios are drawn partly from the balance sheet and partly from the profit and loss account. Ratios satisfying the test of liquidity or solvency take the items of the balance sheet and income statement, some activity ratios coincide with those satisfying the test of liquidity, some leverage ratios belong to the category of income statement. This clearly indicates that one basis of classification crosses into other category. However, for the purpose of consideration of individual ratios, a classification of ratio on functional basis is discussed further.

Advantages of ratio analysis: Ratio analysis is a powerful tool of financial analysis. An absolute figure generally conveys no meaning. It is seen that mostly figure assumes importance only in background of other information. Ratios bring together figures, which are significantly allied, to one another to portray the cause and effect relationship. From a study of the various ratios and their practical applications, the following advantages can be attributed to the technique of ratio analysis:

1. It helps to analyze and understand financial health and trend of a business, its past performance, and makes it possible to forecast the future state of affairs of the business. They diagnose the financial health by evaluating liquidity, solvency, profitability etc. This helps the management to assess the financial requirements and the capabilities of various business units. It serves as a media to link the past with the present and the future.
2. It serves as a useful tool in management control process, by making a comparison between the performance of the business and the performance of similar types of business.
3. Ratio analysis plays a significant role in cost accounting, financial accounting, budgetary control and auditing.
4. It helps in the identification, tracing and fixing of the responsibilities of managerial personnel at different levels.
5. It accelerates the institutionalization and specialization of financial management.
6. Accounting ratios summarize and systematize the accounting figures in order to make them more understandable in a lucid form. They highlight the inter-relationship, which exists between various segments of the business expressed by accounting statements.

Limitations of ratio analysis: Ratio analysis is a widely used technique to evaluate the financial position and performance of a business. But these are subject to certain limitations:

1. Usefulness of ratios depends on the abilities and intentions of the persons who handle them. It will be affected considerably by the bias of such persons.
2. Ratios are worked out on the basis of money-values only. They do not take into account the real values of various items involved. Thus, the technique is not realistic in its approach.
3. Historical values (especially in balance sheet ratios) are considered in working out the various ratios. Effects of changes in the price levels of various items are ignored and to that extent the comparisons and evaluations of performance through ratios become unrealistic and unreliable.
4. One particular ratio, in isolation is not sufficient to review the whole business. A group of ratios are to be considered simultaneously to arrive at any meaningful and worthwhile opinion about the affairs of the business.
5. Since management and financial policies and practices differ from concern to concern, similar ratios may not reflect similar state of affairs of different concerns. Thus, comparisons of performance on the basis of ratios may be confusing.
6. Ratio analysis is only a technique for making judgments and not a substitute for judgment.
7. Since ratios are calculated on the basis of financial statements, which are themselves, affected greatly by the firm's accounting policies and changes therein, the ratios may not be able to bring out the real situations.
8. Ratios are at best, only symptoms; they may indicate what is to be investigated - only a careful investigation will bring out the correct position.
9. Ratios are only as accurate as the accounts on the basis of which these are established. Therefore, unless the accounts are prepared accurately by applying correct values to assets and liabilities, the statements prepared there from would not be correct and the relationship established on that basis would not be reliable.

4.3 Balance Sheet

In formal bookkeeping and accounting, a balance sheet is a statement of the book value of all of the assets and liabilities (including equity) of a business or other organization or person at a particular date, such as the end of a "fiscal year". It is known as a balance sheet because it reflects an accounting identity, the components of the balance sheet

must (by definition) be equal, or in balance. In the most basic formulation, assets must equal liabilities, or assets must equal debt plus equity.

A balance sheet is often described as a "snapshot" of the company's financial condition on a given date. Of the four basic financial statements, the balance sheet is the only statement, which applies to a single point in time, instead of a period of time.

A simple business operating entirely in cash could measure its profits by simply withdrawing the entire bank balance at the end of the period, plus any cash in hand. However, real businesses are not paid immediately, they build up inventories of goods to sell and they acquire buildings and equipment. In other words, businesses have assets and so they could not even if they wanted to, immediately turn these into cash at the end of each period. Real businesses also owe money to suppliers and to tax authorities, and the proprietors do not withdraw all their original capital and profits at the end of each period. In other words, businesses also have liabilities.

A modern balance sheet usually has three parts - assets, liabilities and shareholder's equity. The main categories of assets are usually listed first and are followed by the liabilities. The difference between the assets and the liabilities is known as the "net assets" or the "net worth" of the company.

The net assets showed by the balance sheet equals the third part of the balance sheet, which is known as the shareholder's equity. Formally, shareholder's equity is part of the company's liabilities; they are funds "owing" to shareholders (after payment of all other liabilities). Usually, however, "liabilities" is used in the more restrictive sense of liabilities excluding shareholder's equity. The balance of assets and liabilities (including shareholder's equity) is not a coincidence. Records of the values of each account in the balance sheet are maintained using a system of accounting known as double - entry bookkeeping. In this sense, shareholder's equity by construction must equal assets minus liabilities, and are a residual.

4.3.1 Preparation of Balance Sheet

The Balance Sheet is prepared either in horizontal form (account form) or in vertical form (report form). In horizontal form various assets are shown on the right hand side and various liabilities including owner's equity (capital) are shown on the left hand side. In vertical form, however, assets and liabilities including owner's equity are shown one below the other.

An abridged format of the balance sheet under horizontal form and vertical form is given further.

HORIZONTAL FORM OR ACCOUNT FORM

.... Company Ltd.

Balance Sheet as at ....

Liabilities	**Rs.**	**Assets**	**Rs.**
Share Capital		Fixed Assets	
A. Authorized:		Good will	
...... Shares of Rs.... each Issued:		Land	
...... Shares of Rs..... each (Distinguishing		Buildings	
equity and preference shares)		Plant and machinery	
		Furniture	
B. Subscribed:		Vehicles	
...... Shares of Rs..... each		(Original cost plus additions and less	
Less: Calls in arrear		depreciation)	
Add: Forfeited shares			
Reserves and Surplus		Investments	
Capital reserves		Government securities	
Share premium		Shares and debentures	
Other reserves		Immovable properties	
Profit and Loss A/c			
Secured Loans		Current Assets, Loans and Advances	
Debentures		A. Current Assets:	
From Banks		Interest accrued	
Mortgages		Stores and spares	
		Loose tools	
Unsecured Loans		Stock-in-trade	
Fixed deposits		Work-in-progress	
Short-term loans		Sundry debtors	
		Cash and bank balances	
Current Liabilities and Provisions		B. Loans and Advances:	
A. Current Liabilities:		Prepayments	
Sundry Creditors		Bills of exchange	
Outstanding expenses			
Unclaimed dividends		Miscellaneous Expenditure	
Interest accrued		Preliminary expenses	
		Brokerage	
B. Provisions:		Underwriting commission	
Provision for taxation		Discount on issue of shares and	
Proposed dividend		debentures	
		Interest payment	
		Profit and Loss Account	

VERTICAL OR REPORT FORM

.... Company Ltd.
Balance Sheet as at ....

Schedule
No. Figures as at the end of the current year (Rs.)
I. Sources of Funds

(1) Shareholder's funds
(a) Capital
(b) Reserves and Surplus

(2) Loan Funds
(a) Secured Loans
(b) Unsecured Loans
Total

II. Application of Funds

(1) Fixed Assets
(a) Gross Block
(b) Less: Depreciation
(c) Net Block
(d) Work-in-progress

(2) Investments

(3) Current Assets, Loans and Advances
(a) Inventories
(b) Sundry Debtors
(c) Cash and Bank Balances
(d) Other Current Assets
(e) Loans and Advances
Less: Current Liabilities and Provisions
(a) Liabilities
(b) Provisions
Net Current Assets
(a) Miscellaneous Expenditure to the extent not written off or adjusted
(b) Profit and Loss Account

Total

4.3.2 Practices in Preparing and Presenting Balance Sheet

Regardless of the form of presentation used, the following practice should be observed in preparation and presentation of Balance Sheet:

a) The heading should include the recognized name of the business, and the name and date of the statement. Unless otherwise indicated, a Balance Sheet is assumed to be prepared at the close of the business on the date stated.

b) In the account form of Balance Sheet, the one side should be headed "assets", and the other "liability". Normally assets are shown on the right hand side and liabilities are shown on the left hand side.

c) In accordance with the Option No. 6 of Accounting Practices Board (APB), the accepted method of valuing property on the Balance Sheet is cost. Property, plant and equipment should not be written up to reflect appraisals, market or current values, which are above costs. Serious inflation may be an exception to this general rule. But, whenever, appreciation has been recorded in the books, income should be charged with depreciation on the written up amounts. Further, Opinion No. 12 of APB relates that, because of the significant effects on financial position and result of operation of the depreciation method or methods used, it is desirable to disclose depreciable assets by classes, depreciation for the period, accumulated depreciation by classes and methods used. Cost is also the accepted method to be used in valuing assets such as securities and inventories. Where the market value of these assets is less than cost, they may be written down to market value. Sometimes market values below cost are disclosed in parenthesis, without being incorporated in the final figures.

d) The various items appearing in the Balance Sheet should be classified accurately and logically in accordance with the purpose the statement is to serve. Generally speaking, assets in each group should be listed in order of their liquidity and the liabilities in the order in which they are payable in the ordinary course of business.

e) Items, which are not of similar nature, should not be combined in Balance Sheet. For example, combinations like cash and investments, or property and goodwill or securities and sinking funds are to be avoided.

f) Total for the various major groups and sub-divisions of the Balance Sheet should be clearly displayed.

g) Descriptive asset titles should be used and detailed information not essential to clear and concise presentation should be shown in footnotes and schedules.

h) As far as practicable, amounts should be rounded off to the nearest unit of money measurements used (i.e., Rupee, dollar, franc, etc.). Where the amounts are large, the statement may be stated in terms of hundreds, thousands or millions of such units used.

i) The statement should be mathematically correct.

j) The statement should be truthful and not misleading and should give a full disclosure of significant data. Additional information may be given parenthetically, in schedules, or in footnotes to the balance sheet for items not adequately explained in the body of the balance sheet.

k) The form of Balance Sheet may contain figures relating to previous period for the sake of comparison.

4.3.3 Comparative Balance Sheet Analysis

A comparative balance sheet shows the balance of accounts of assets and liabilities on different dates and also the extent of their increases or decreases between these dates throwing light on the trends and direction of changes in the position over the periods. This helps in predicting about the position of the business in future. A specimen of the comparative balance sheet is given below:

.... Company Ltd.
Comparative Balance Sheet (as on 31st March, 2005 and 2006)

Assets	31.3.2005	31.3.2006	Increase (+) Or Decrease (-) In amounts	Decrease (-) Or Increase (+) In %age
	Rs.	Rs.	Rs.	
Current Assets				
Cash in hand and at bank	118,000	10,000	(-) 108,000	(-) 92
Receivable on customer's Account and Bills	209,000	190,000	(-) 19,000	(-) 9
Inventory of materials, goods in process and finished stock	160,000	130,000	(-) 30,000	(-) 19
Prepaid expenses	3,000	3,000	-	-
Other current assets	29,000	10,000	(-) 19,000	(-) 66
Total Current Assets	519,000	343,000	(-) 176,000	(-) 34
Fixed Assets				
Land and buildings	270,000	170,000	(-) 100,000	(-) 37
Plant and machinery	310,000	786,000	(+) 476,000	(+) 150
Furniture and fixtures	9,000	18,000	(+) 9,000	(+) 100
Other fixed assets	20,000	30,000	(+) 10,000	(+) 50
Total Fixed Assets	609,000	1004,000	(+) 395,000	(+) 65
Investments	46,000	59,000	(+) 13,000	(+) 28
Total Assets	1174,000	1406,000	(+) 232,000	(+) 20

Liabilities and Capital				
Current Liabilities				
Accounts payables (sundry trade creditors and bills payable)	255,000	117,000	(-) 138,000	(-) 54
Other short-term liabilities	7,000	10,000	(+) 3,000	(+) 43
Total Current Liabilities	262,000	127,000	(-) 135,000	(+) 52
Debentures	50,000	100,000	(+) 50,000	(+) 100
Long-term loans on mortgage	150,000	225,000	(+) 75,000	(+) 50
Total Liabilities	462,000	452,000	(-) 10,000	(-) 2
Capital				
Equity share capital	400,000	600,000	(+) 200,000	(+) 50
Reserve and surplus	312,000	354,000	(+) 42,000	(+) 13
Total Liabilities and Capital	1174,000	1406,000	(+) 232,000	(+) 20

On analyzing and interpretation of the above comparative balance sheet we can list-out the following points:

- Current assets have decreased by 176,000 while current liabilities have decreased by 135,000, but this has no adverse effect on current ratio because the percentage decrease in current asset is 34%, which is much less than the percentage decrease of 52% in current liability.

- Fixed assets have increased by 395,000, major increase being plant & machinery of 476,000, which amounts to the increase in production and profit earning capacities. Increase in fixed asset appears to have been partly financed by increase in equity capital, which is 200,000 partly by release of working capital and partly by increase in debentures and long-term borrowings.

- The increase in reserves and surpluses of 42,000 may be the result of profits retained and has gone to account for increase in long-term loans and fixed assets.

- There has been a drastic fall in cash balance. This reflect an adverse cash position.

4.3.4 Common-Size Balance Sheet Analysis

In a common size balance sheet, total of assets or liabilities is taken as 100 and all the figures are expressed as percentage of the total. Comparative common size balance sheets for different periods help to highlight the trends in different items. If it is prepared for different firms in an industry, it facilitates to judge the relative soundness and helps in understanding their financial strategy.

A comparative common-size balance sheet for two firms in an industry is illustrated below:

Old Guards and Young Ones Companies
Comparative Balance Sheet (as on 31st March, 2006)

	Old Guards Co.		Young Ones Co.	
	Amount Rs.	% Of Sales	Amount Rs.	% Of Sales
(1)	(2)	(3)	(4)	(5)
Assets				
Current Assets:				
Cash	54,000	2.7	72,000	7.0
Sundry debtors	440,000	22.0	226,000	22.0
Trading stock	200,000	10.0	174,000	17.0
Prepaid expenses	22,000	1.0	21,000	2.0
Other current assets	20,000	1.0	21,000	2.0
Total Current Assets	736,000	36.7	514,000	50.0
Fixed Asses (less accumulated depreciation)	1270,000	63.3	513,000	50.0
Total	2006,000	100.0	1027,000	100.0
Liabilities and Capital				
Current Liabilities:				
Sundry creditors	84,000	4.2	134,000	13.0
Other current liabilities	156,000	7.8	62,000	6.0
Total Current Liabilities	240,000	12.0	196,000	19.0
Mortgage debentures	450,000	22.4	318,000	31.0
Total Liabilities	690,000	34.4	514,000	50.0
Capital and reserves	1316,000	65.6	513,000	50.0
Total Liabilities and Capital	2006,000	100.0	1027,000	100.0

On analyzing and interpretation of the above common-size balance sheets we can list-out the following points:

- Old Guard Co. has a better and efficient credit and collection system because its debtors & trading stock amounts to 32% of the total stock as compared to 39% of the Young Ones Co.

- The cash position on Young Ones Co. compares favorably with that of Old Guards.
- Old Guard Co. appears to be more traditionally financed with shareholder's equity of 65.6% of total liability against 50% of Young Ones. This reflects the financial value ability of the Young One.

4.4 Profit and Loss Account

Profit and Loss Account is a financial statement for companies that indicates how net revenue (money received from the sale of products and services before expenses are taken out, also known as the "top line") is transformed into net income (the result after all revenues and expenses have been accounted for, also known as the "bottom line"). The purpose of the income statement is to show managers and investors whether the company made or lost money during the period being reported. Because the Profit and Loss Account measures performance, in terms of revenues and expenses, over a period of time, whether it be a month, a quarter, or longer, it must always indicate the exact period covered.

Profit and Loss Account should help investors and creditors determine the past performance of the enterprise, predict future performance and assess the risk of achieving future cash flows. In essence, net income is one measure of the wealth created by an entity during the accounting period. By tracking net income from period to period and examining changes in the components of net income, investors and other decision makers can evaluate the success of the period's operations.

4.4.1 Preparation of Profit and Loss Account

The Profit and Loss Account is generally prepared in an account form with items of cost, expenses and losses appearing on the left hand (debit) side while items of revenue and income appearing on the right hand (credit) side. It consists of several stages:

a) 'Gross profit', which is calculated in the first stage by deducting cost of goods or services sold from the sales value of such goods and services.

b) 'Net profit on sales' or 'Net operating profit' is the residue left after deducting selling, general and administrative expenses from "Gross profit".

c) Total net profit before tax is arrived at after adding and subtracting non-operating and non-recurring gains and losses from the figure of "Net operating profits".

d) When income tax is deducted from this profit we arrive at net profit after tax.

The net profit so arrived is carried forward to an account known as Profit and Loss Appropriation Account. This account may also be presented as a part of main Profit and Loss Account. In this account appropriations to various funds and reserves are shown from the total net profits. It shows the uses to which the available net profits have been put or will be put, the balance being termed as "Retained Earnings". The Profit and Loss Account can also be prepared in a report/statement form.

ACCOUNT FORM

..... COMPANY LTD.
Profit and Loss Account for the year ended ....

	Rs.		Rs.
To Stock (opening)		By Sales	
To Purchases		By Stock (closing)	
To Coal and coke			
To Carriage inward			
To Gross Profit c/d			
To General and administration salaries		By Gross profit b/d	
To Sales salaries			
To Advertising			
To Travel and entertainment			
To Rates and taxes			
To Insurance			
To Freight and delivery			
To Depreciation			
To Net operating profit c/d			
To Interest paid		By Operating profit b/d	
To Provision for taxes		By Interest and dividend earned	
To Net profit c/d		By Income from rent	
		By Gain on sale of investment	

..... COMPANY LTD.
Profit and Loss Appropriation Account for the year ended ....

	Rs.		Rs.
To General reserves		By Net profit b/d	
To Sinking fund			
To Interim dividend			
To Final dividend-proposed			

The above specimen shows the multiple stages in preparing profit and loss account. However,

this is not required under the law. Hence most companies prepare a single step Profit and Loss Account. A specimen of single-step profit and loss accounts is given below:

..... COMPANY LTD.

Profit and Loss Account for the year ended ....

	Rs.		Rs.
To Cost of goods sold		By Sales (net of discount,	
To General and administrative expenses		returns and allowances)	
To Depreciation		By Dividends	
To Selling expenses		By Interest	
To Interest on bonds		By Royalties	
To Loss on sale of property		By Gain on sale of assets	
To Provisions for income-tax		By Miscellaneous receipt	
To Net income after taxes			

The single step arrangement, by eliminating the possibility of misleading subtotals of multi-step profit and loss account allows you to make your own combination of figures for analysis and conclusions. In most cases, the appropriation account is generally not prepared separately but is shown below the profit and loss account as its part after arriving at the net profits after taxes. Another form, in which the Profit and Loss Account or Income Statement is prepared, is the report from. A specimen is given as under.

REPORT FORM

..... COMPANY LTD.
Profit and Loss Account for the year ended ....

	Rs.	Rs.	Rs.
Sales:			
Cash			
Credit			
Less: Returns			
Net Sales			

Less: Cost of goods sold

Gross Profit

Less: Operating expenses
General and administrative expenses
Selling expenses

Net operating profit

Add: Non-operating incomes/
Less: Non-operating expenses

Net profit before interest and tax

Less: Interest on debentures

Net profit before tax

Less: Provision for taxation

Net profit after tax

Reserves
Sinking fund
Proposed dividend

Balance of profit carried forward

4.4.2 Characteristics of a well prepared Profit and Loss Account

An income statement, in whichever form used, must have the following characteristics if it has to achieve its objectives and be available for meaningful analysis and interpretation:

a) It should be headed by the name of the organization, title of the statement, and the period covered.

b) It should be prepared according to the accepted principles and practices of accounting prevailing in the specific line of business. Any deviation from such accepted practices should be clearly mentioned in the statement.

c) It should disclose the sources of revenue, costs and expenses or principal business operations.

d) It should indicate clearly the operating income or losses (preferably separately from each principal activities) and net income or loss for the period.

e) It should show separately and describe gain and loss items which are extraordinary and non-recurrent, and items which are related to previous periods.

f) It should state specifically the income tax.

g) It should give comparative data for prior periods.

h) It should disclose in parenthetical or foot note form important explanatory information, such as details of amounts and method of depreciation, inventory pricing methods, effect on net income of changes made in accounting practices during period, etc.

4.4.3 Comparative Profit and Loss Account or Income Statement Analysis

Comparative income statement shows the operating results for a number of accounting periods and changes in the data significantly in absolute periods and changes in the data significantly in absolute money terms as well as in relative percentage. A specimen income statement is given below:

.... Company Ltd.
Comparative Statement of Income (for year ended 31st March, 2005 and 2006)

	31.3.2005	31.3.2006	Amount of Increase (+) Or Decrease (-) during 2005-06	Percentage Increase (+) Or Decrease (-(during 2005-06
	Rs.	Rs.	Rs.	
Net sales	850,000	952,000	(+) 102,000	(+) 12
Cost of goods sold	525,000	600,000	(+) 75,000	(+) 14.3
Gross Profit on Sales	325,000	352,000	(+) 27,000	(+) 8.3
Operating Expenses/Selling Expenses				
Advertising	15,000	20,000	(+) 5,000	(+) 33.3
Delivery expenses	20,000	18,000	(-) 2,000	(-) 10
Salesmen salaries and commission	150,000	153,000	(+) 3,000	(+) 2
Packing and freight expenses	14,000	15,000	(+) 1,000	(+) 7
Other selling expenses	20,000	23,000	(+) 3,000	(+) 15
Total Selling Expenses	219,000	229,000	(+) 10,000	(+) 4.5

General and Administrative Expenses				
Office salaries	58,000	63,800	(+) 5,800	(+) 10
Office expenses	2,000	4,000	(+) 2,000	(+) 100
Stationery and postage	1,000	2,000	(+) 1,000	(+) 100
Insurance	2,000	1,000	(-) 1,000	(-) 100
Doubtful debts	3,000	4,000	(+) 1,000	(+) 33
Total administrative and general expenses	66,000	74,800	(+) 8,800	(+) 13.3
Total Operating Expenses	285,000	303,800	(+) 18,800	(+) 6.6
Operating Profit	40,000	48,200	(+) 8,200	(+) 20.5
Other Income				
Interest income	12,000	12,000	-	-
Rent income	8,000	16,000	(+) 8,000	(+) 100
Discount received	12,000	18,000	(+) 6,000	(+) 50
Total Other Income	32,000	46,000	(+) 14,000	(+) 43.7
Total of Operating Profit and Other Income	72,000	94,200	(+) 22,200	(+) 30.8
Other Expenses				
Interest expenses	26,000	17,000	(-) 9,000	(-) 34.6
Sales discount	8,000	7,000	(-) 1,000	(-) 12.5
Total Other Expenses	34,000	24,000	(-) 10,000	(-) 29.4
Income before income tax	38,000	70,200	(+) 32,200	(+) 84.7
Income tax	19,000	31,000	(+) 12,000	(+) 63.1
Income after Income Tax	19,000	39,200	(+) 20,200	(+) 106.3

On analyzing and interpretation of the above comparative income statement we can list-out the following points:

- There has been increase of 102,000 in sales but at the same time cost of goods sold has also increased by 75,000. In relative terms, sales increased by 12%, while cost of goods sold increased by 14.3%. It means, either the addition in sales has been due to lowering of sales prices or the increase in cost is due to operational inefficiency.

- Similarly, increase in advertising i.e. 33% has been much more than the increase in sales. But in absolute terms the amount of increase is only 5000.
- Operating profits have shown an increase of 20.5% but in absolute terms, profit has increased by 8200.
- There has been a substantial increase in other income both in relative and absolute terms i.e. 43.7% and 14,000 respectively. Similarly, there has been a substantial decrease in other expenses i.e. 29.4%. These items have gone to increase the total income before tax for the year by 32,200. Thus, reflecting that the management has been more concerned for the other incomes that operating profits.

4.4.4 Common-Size Income Statement Analysis

In a common size income statement the sales figure is assumed to be equal to 100 and all other figures of costs or expenses are expressed as percentages of sales. A comparative income statement for different periods helps to reveal the efficiency or otherwise of incurring any cost or expense. If it is being prepared for two firms, it shows the relative efficiency of each cost item for the two firms.

A comparative common-size income statement for two firms in an industry is illustrated below:

Old Guards and Young Ones Companies
Comparative Income Statement (period ending 31st March, 2006)

	Old Guards Co.		**Young Ones Co.**	
	Amount Rs.	% Of Sales	Amount Rs.	% Of Sales
(1)	(2)	(3)	(4)	(5)
Net sales	2538,000	100.0	970,000	100.0
Cost of goods sold	1422,000	56.0	475,000	49.0
Gross Profit on Sales	1116,000	44.0	495,000	51.0
Selling expenses	720,000	28.4	272,000	28.0
General and administrative expenses	184,000	7.2	97,000	10.0
Total Operating Expenses	904,000	35.6	369,000	38.0
Operating profit	212,000	8.4	126,000	13.0
Other income	26,000	1.0	10,000	1.0
	238,000	9.4	136,000	14.0
Other expenses	40,000	1.6	29,000	3.0

Income before tax	198,000	7.8	107,000	11.0
Income tax	68,000	2.7	28,000	2.9
Net Income after tax	130,000	5.1	79,000	8.1

On analyzing and interpretation of the above common-size income statements we can list-out the following points:

" The turnover of Old Guard is larger than Young One, but the cost of goods absorbs the larger i.e. 56% compared to 49% of Young One. This reflects a better pricing mark-up.

" Selling expenses and general administrative expenses is 35.6% of the net sales in Old Guard Co., while it is 38% in case of Young One. Administration cost in Young One is higher as compared to Old Guard. Reflecting a highly paid or over-staffed situation.

" When analyzed together with the common-size balance sheets discussed before, we can conclude that, the fixed assets of Old Guard is larger than the Young One but if this is compared with turnover of the two companies, we find that Old Guard has a lower asset turnover i.e. 50% than that of Young One, which is 53%. This reflects better asset utilization by the Young One Co.

4.5 Stock Market Related Ratios

The main ratios that you need to understand as an investor are:

Profit related ratios
- Liquidity related ratios
- Dividend related ratios
- Other ratios

The company's Annual Reports and Accounts help us in finding the figures that make up the ratios. Let's understand these ratios as per their functional classification in detail.

4.5.1 Profitability Ratios

A measure of 'profitability' is the overall measure of efficiency. In general terms efficiency of business is measured by the input-output analysis. By measuring the output as a proportion of the input and comparing result of similar other firms or periods the relative change in its profitability can be established.

The income (output) as compared to the capital employed (input) indicates profitability of a firm. Thus the chief profitability ratio is:

{Operating Profit (net margin)/Operating Capital Employed} x 100

Once this is known, the analyst compares the same with the profitability ratio of other firms or periods. Then, when he finds some contrast, he would like to have details of the reasons. These questions are sought to be answered by working out relevant ratios. The main profitability ratio and all the other sub-ratios are collectively known as 'profitability ratios'.

Profitability ratio can be determined on the basis of either investments or sales. Profitability in relation to investments is measured by return on capital employed, return on shareholder's funds and return on assets. The profitability on relation to sales is profit margin (gross and net) and expenses ratio or operating ratio.

4.5.1.1 Return on Investment (RoI)

This ratio is also known as overall profitability ratio or return on capital employed. The income (output) as compared to the capital employed (input) indicates the return on investment. It shows how much the company is earning on its investment. This ratio is calculated as follows:

Return on Investment = (Net Operating Profit x 100)/Capital Employed

Operating profit means profit before interest and tax. In arriving at the profit, interest on loans is treated as part of profit (but not the interest on bank overdraft or other short-term finance) because loans themselves are part of the input, i.e., the capital employed and hence, the interest on loans should also be part of the output and should not be excluded there from. All non-business income or rather income not related to normal operations of the company should be excluded. Thus profit figure shall be IBIT, i.e., Income Before Interest and Taxation (excluding non-business income).

The income figure is reckoned before taxation because the amount of tax has no relevance to the operational efficiency. Both interest and taxation are appropriations of profit and do not reflect operational efficiency. Moreover, to compare the profitability of two different organizations having different sources of finance and different tax burden, the profit before interest and taxation is the best measure.

Capital employed comprises share capital and reserves and surplus, long-term loans minus non-operating assets and fictitious assets. It can also be represented as net fixed assets plus working capital (i.e., current assets minus current liabilities). Thus capital employed may comprise:

Share Capital
\+ **Reserve and Surplus**
\+ **Long-term Loans**

- **Non-operating Assets**
- **Fictitious Assets**

In using overall profitability ratio as the chief measure of profitability, the following two notes of caution should be kept in mind:

a) First, the figure of operating profit shows the profit earned throughout a period. The figure capital employed on the other hand refers to the values of assets as on a balance sheet date. As the values of assets go on changing throughout a business period it may be advisable to take the average assets throughout a period, so that the profit are compared against average capital employed during a period.

b) Secondly, in making comparison between two different units on the basis of the overall profitability ratio, the time of incorporation of the two units should be taken care off. If a company incorporated in 1980 is compared with that incorporated in 1995, the first company's assets will be appearing at a much lower figure than those of second company. Thus the former will show a lower capital base and if profits of both the companies are the same, the former will show a higher rate of return. This does not indicate higher efficiency; only the capital employed is lower because of the reason that it started 15 years earlier. Hence, in such cases the present value of the fixed assets should be considered for calculating the capital employed.

In the end, it may be stated that the limitations of the ratio should be kept in mind while forming an opinion. The 'profits' and "capital employed" figures are the result of a number of approximations (example, depreciation) and human judgment (valuation of assets). The purpose of calculation of the ratio should be kept in view and appropriate figures should be selected having regard to impact of changing price levels. "Return on capital employed" is an instrument to be used cautiously with clear understanding of its limitations.

Ex: Suppose a company has the following items on the liabilities side and it shows underwriting commission of Rs.100,000 on the assets side:

	Rs.
13% Preference capital	10,00,000
Equity capital	30,00,000
Reserves	26,00,000
Loans @ 15%	30,00,000
Current Liabilities	15,00,000

Its profit, after paying tax @ 50% is Rs.14,00,000. Profit before interest and tax will be Rs.32,50,000 as shown below:

	Rs.
Profit after tax	14,00,000
Tax	14,00,000
Interest @ 15% on Rs.30,00,000	04,50,000
	32,50,000

The operating capital employed is Rs.95,00,000 i.e. total of all the items (excluding current liabilities) less Rs.100,000, a fictitious asset. The ROI comes to
{32,50,000/95,00,000} x 100 or 34.21%

The overall profitability ratio has two components. These are the net profit ratio (operating profit/sales x 100) multiplied by turnover ratio (sales/ capital employed). Therefore, ROI, in terms of percentage:

(Operating Profit/Capital Employed) x 100
= 100 x (Operating Profit/Sales) x (Sales/Capital Employed)

NOTE: If a management wants to maximize its profitability, it could do so by improving its net profit ratio and turnover ratio. The former refers to the margin made in each sale in terms of percentage whereas, the latter shows the utilization, i.e., rotation of the capital in making the sale. If the selling price of an article is Rs.10 whose cost is Rs.6, there is a margin of Rs.4 or 40%. This shows the gap between selling price and cost price in the percentage form. The overall profitability is also dependent upon the effectiveness of employment of capital. If in this case, sales Rs.200 were made with a capital of Rs.100 then the rotation, i.e., the turnover is 200/100 or 2 times. Thus the business has earned a total profit of Rs.80 with a capital of Rs.100, profitability ratio being 80%, i.e., Net profit ratio x Turnover ratio = 40% x 2 = 80

Illustration: Determine which company is more profitable:

	A Ltd.	B Ltd.
Net Profit Ratio	3%	4%
Sales/Capital Employed	5 times	3 times

Solution: Judging from the net margin ratio B Ltd. appears to be more profitable. But the criteria for determining profitability are return on capital employed which in this case works out to 15% and 12% respectively for A Ltd. and B Ltd. Hence A Ltd. is undoubtedly more profitable.

Return on investment is a good measure of profitability in as much as it is an extension of the input-output analysis. Moreover, it aids in comparing the performance efficiency of dissimilar enterprises.

4.5.1.2 Return on Shareholder's Funds

It is also referred to as return on net worth. In this case it is desired to work out the profitability of the company from the shareholder's point of view and it is computed as follows:

{Net Profit after Interest and Tax/Shareholders Funds} x 100

Modifications of the 'return on capital employed' can be made to adopt it to various circumstances. Thus if it is required to work out the profitability from the shareholder's point of view, then the profit figure should be after interest and taxation and the capital employed should be after deducting the long-term loans. The ratio would reflect the profitability for the shareholders. To extend the idea further, the profitability from equity shareholder's point of view can also be worked out by taking the profits after preference dividend and comparing against capital employed after deducting both long-term loans and preference capital.

4.5.1.3 Return on Assets

Here the profitability is measured in terms of the relationship between net profits and assets. It shows whether the assets are being properly utilized or not. It is calculated as:

{Net Profit after Tax/Total Assets} x 100

This ratio is a measure of the profitability of the total funds or investment of the organization.

4.5.1.4 Gross Profit Ratio or Gross Margin

Gross profit ratio expresses the relationship of gross profit to net sales or turnover. Gross profit is the excess of the proceeds of goods sold and services rendered during a period over their cost, before taking into account administration, selling and distribution and financing changes. Gross profit ratio is expressed as follows:

{Gross Profit/Net Sales} x 100

This ratio is important to determine general profitability since it is expected that the ratio would be quite high so as to cover not only the remaining costs but also to allow proper returns to owners.

Any fluctuation in the gross profit ratio is the result of a change either in 'sales' or the 'cost of goods sold' or both. The rise or fall in the selling price may be an external factor over which the management may have little control, especially when prices are controlled. The management, however, must try to keep the other end of the margin (i.e., cost) at least steady, if not reduce it. If the gross profit ratio is lower than what it was previously, when the selling price has remained steady, it can be reasonable concluded that there is an increase in the manufacturing cost. Since manufacturing overheads include

a fixed element as well, a fall in the volume of sales will also lower the rate of gross profit and vice-versa.

4.5.1.5 Net Profit Ratio or Net Margin

One of the components of return on capital employed is the net profit ratio (or the margin on sales) calculated as:

{Operating Profit/Sales} x 100

It indicates the net margin earned in a sale of Rs.100. Net profit is arrived at from gross profit after deducting administration, selling and distribution expenses; non-operating income, such as dividends received and non-operating expenses are ignored, since they do not affect efficiency of operations.

If the expenses met out of the gross profit are disproportionately heavy, the net profit ratio will go down. If gross profit ratio is 40%, but the net profit ratio is 15% it means the expenses ratio is 25%. Thus a complement of the net profit ratio is {(Administration expenses + Selling expenses)/Sales} x 100. Proceedings upwards from net profit, we can arrive at gross profit if administrative and selling expenses are added back. Similarly, if we add administrative and selling expenses ratio to the net profit ratio we can get the gross profit ratio.

4.5.1.6 Operating Profit Ratio or Operating Margin

The ratio of all operating expenses (i.e., materials used, labour, factory overheads, office and selling expenses) to sales is the operating ratio.

A comparison of the operating ratio would indicate whether the cost content is high or low in the figure of sales. If the annual comparison shows that the sales have increased, the management would be naturally interested and concerned to know as to which element of the cost has gone up.

It is not necessary that the management should be concerned only when the operating ratio goes up. If the operating ratio has fallen, though the unit selling price has remained the same, still the position needs analysis as it may be the sum total of efficiency in certain departments and inefficiency in others. A dynamic management should be interested in making a fuller analysis.

It is, therefore, necessary to break up the operating ratio into various cost ratios. The major components of cost are: material, labour and overheads. Therefore, it is worthwhile to classify the cost ratio as:

Material cost ratio = (Material consumed/Sales) x 100

Labour cost ratio = (Labour cost/Sales) x 100

Factory overheads cost ratio = (Overheads cost/Sales) x 100

Administrative expenses ratio = (Administrative expenses/Sales) x 100

Selling and distribution expenses ratio = (Selling and distribution expenses/Sales) x 100

Generally all these ratios are expressed in terms of percentage. They total up to the Operating Ratio. This, deducted from 100 will be equal to the Net Profit Ratio.

If possible, the total expenditure for effecting sales should be divided into two categories, viz., fixed & variable - and then ratios should be worked out. The ratio of variable expenses to sales will be generally constant; fixed expenses should fall if sales increase; it will increase if sales fall.

4.5.2 Activity Ratios or Turnover Ratios

The ratios used to measure the effectiveness of the employment of resources are termed as activity ratios. Since these ratios relate to the use of assets for generation of income through turnover they are also known as turnover ratios, as we have seen already, the overall profitability of the business depends on two factors i.e., (i) the rate of return on sales and (ii) the rate of return on capital employed i.e., the speed at which the capital employed in the business relates. More efficient the operations of an undertaking - the quicker and more number of times the rotation is. Thus the overall profitability ratio is calculated as - Net Profit Ratio x Turnover Ratio. The net profit ratio has already been discussed. Now the important turnover ratios as regards capital employed and assets are discussed further.

4.5.2.1 Capital Turnover (Sales to Capital Employed) Ratio

This ratio shows the efficiency of capital employed in the business and is calculated as follows:

Capital Turnover Ratio = (Net Sales/Capital Employed)

The higher the ratios the greater are the profits.

4.5.2.2 Total Assets Turnover Ratio

This ratio is ascertained by dividing the net sales by the value of total assets. Thus,

Total Assets Turnover Ratio = (Net Sales/Total Assets)

A high ratio is an indicator of overtrading of total assets while a low ratio reveals idle capacity. The total Assets Turnover Ratio can be segregated into:

a) Fixed Assets Turnover Ratio: This ratio indicates the number of times fixed assets are being turned over in a stated period. It is calculated as:

Fixed Assets Turnover Ratio = (Net Sales/Fixed Assets)

This ratio is an indicator of the extent to which investment in fixed assets contributes to generate sales. The fixed assets are to be taken net of depreciation. The higher is the ratio the better is the performance.

b) Working Capital Turnover Ratio: This ratio shows the number of times working capital is turned-over in a stated period. This ratio is calculated as:

Working Capital Turnover Ratio = (Net Sales/Working Capital)

It indicates to what extent the working capital funds have been employed in the business towards sales.

4.5.2.3 Stock Turnover Ratio (Inventory Turnover Ratio)

This ratio is an indicator of the efficiency of the use of investment in stock. It is calculated as:

Stock Turnover Ratio = (Cost of Goods Sold/Average Inventory)
Or Stock Turnover Ratio = (Sales/Average Inventory)

Too large an inventory will depress the ratio; control over inventories and active sales promotion will increase the ratio. If desired this ratio may be split into two ratios, for raw materials and for finished goods:

a) (Material consumed/Average raw material stocks); and
b) (Sale or Cost of goods sold/Average stocks of finished goods)

This analysis will throw a better light on the inventory position. Average inventory is calculated on the basis of the average inventory at the beginning and at the end of the accounting period.

4.5.2.4 Debtors Turnover Ratio (Debtor's Velocity)

These days some amounts of sales are always locked up in the form of book debts. Efficient credit control and prompt collection of amounts due will mean lower investments in book debts. This ratio measures the net credit sales of a firm to the recorded trade debtors thereby indicating the rate at which cash is generated by turnover of receivable or debtors. This ratio is calculated as:

Debtors Turnover Ratio = (Net sales/Average debtors)

Average debtors refer to the average of opening and closing balance of debtors for the period. Debtors include bills receivables but exclude debts, which arise on account of transactions other than sale of goods. While calculating debtors' turnover, it is important to note that provision for bad and doubtful debts are not deducted from total debtors in order to avoid the impression that a larger amount of receivables have been collected.

4.5.2.5 Debt Collection Period

This ratio indicates the extent to which the debts have been collected in time. This ratio is in fact, interrelated with and dependent upon the debtors' turnover ratio. It is calculated by dividing the days in a year by the debtors' turnover. This ratio can be computed as follows:

{(Months/Days in a Year)/Debtors Turnover} Or
{[(Average Debtors x Months)/Days in a Year]/Net Credit Sales for the Year} Or
{Average Debtors/(Average Monthly/Daily Credit Sales)}

Debtor's collection period shows the quality of debtors since it measures the speed with which money is collected from them. It is rather difficult to specify a standard collection period for debtors. It depends upon the nature of the industry, seasonal character of the business and credit policy of the firm etc.

Illustration: From the following information, calculate, debtors turnover ratio and average collection period.

	Rs.
Total debtors (on 1.4.2002)	200,000
Cash sales	150,000
Credit sales	1000,000
Cash collected	780,000
Sales returns	60,000
Bad debts	40,000
Discount allowed	20,000
Provision for bad debts	25,000

No. of days in a year - 360

Calculation of Closing Balance of Total Debtors

Total Debtors Account

Dr.			Cr.
	Rs.		Rs.
To Balance b/d	200,000	By Cash	780,000
To Credit sales	100,000	By Sales returns	60,000
		By Bad debts	40,000
		By Discount allowed	20,000
		By Balance c/d	300,000
	1200,000		1200,000

Debtors Turnover Ratio	= Credit Sales/Average Debtors
Average Debtors	= (Opening Debtors + Closing Debtors)/2
	= (Rs.200,000 + Rs.300,000)/2
	= Rs.250,000
Debtors Turnover Ratio	= Rs.1000,000/Rs.250,000
	= 4 times
Average Collection Period	= Days in the Year/Debtors Turnover Ratio
	= 360/4
	= 90 days.

4.5.2.6 Creditors Turnover Ratio (Creditor's Velocity)

Like debtor's turnover ratio, this ratio indicates the speed at which the payments for credit purchases are made to creditors. This ratio is computed as follows:

Creditors Turnover Ratio = (Credit Purchases/Average Creditors)

The term 'creditors' include, trade creditors and bills payable. In case the details regarding credit purchases, opening and closing balances of creditors are not available, then instead of credit purchases, total purchases may be taken and in place of average creditors, the balance available may be substituted.

4.5.2.7 Debt Payment Period

This ratio gives the average credit period enjoyed from the creditors. It can be computed as under:

{(Months/Days in a year)/Creditors Turnover} Or
{[(Average Creditors x Months)/Days in a Year]/Credit Purchases in the Year} Or
{Average Creditors/(Average Monthly/Daily Credit Purchases)}

Both above ratios determine the average age of payables, on the basis of which it can be compensated as to how prompt or otherwise the company is making payments for credit purchases affected by it. A high creditor's turnover ratio or low debt payment period shows that creditors are being paid promptly, hence enhancing the credit worthiness of the company. However, a very favorable ratio to this effect also shows that the business is not taking full advantage of credit facilities allowed by the creditors.

4.5.3 Financial Ratios

Financial statements of a firm are analyzed for ascertaining its profitability as well as financial position. A firm is said to be financially sound provided if it is capable of meeting its commitments both short-term and long-term. Accordingly, the ratios to be computed

for judging the financial position are also known as solvency ratios and those are computed for short-term solvency is known as liquidity ratios.

In a short period, a firm should be able to meet all its short-term obligations i.e., current liabilities and provisions. It is current assets that yield funds in the short period - current assets are those assets, which the firm can convert it into cash within one year or short run. Current assets should not only yield sufficient funds to meet current liabilities as they fall due but also to enable the firm to carry on its day-to-day activities. The ratios to test the short-term solvency or liquidity position of an enterprise are discussed further.

4.5.3.1 Current Ratio

Current Ratio also known, as the working capital ratio is the most widely used ratio. It is the ratio of total current assets to current liabilities and is calculated by dividing the current assets by current liabilities.

Current Ratio = (Current Assets/Current Liabilities)

Current assets are those assets, which can be converted into cash in the short-run or within one year. Likewise, current liabilities are those, which are to be paid off in the short run. Current assets normally include cash in hand or at bank, inventories, sundry debtors, loans and advances, marketable securities, pre-paid expenses, etc. while current liabilities consist of sundry creditors, bills payable, outstanding and accrued expenses, provisions for taxation, proposed and un-claimed dividend, bank overdraft etc.

Current ratio indicates the firms' commitment to meet its short-term obligations. It is a measure of testing short-term solvency or in other words, it is an index of the short-term financial stability of an enterprise because it shows the margin available after paying off current liabilities.

Generally 2:1 ratio is considered ideal for a concern. If the current assets are two times of the current liabilities, there will be no adverse effect on the business operations when the payment of liabilities is made. In fact a ratio much higher than 2:1 may be unsatisfactory from the angle of profitability, though satisfactory from the point of view of short-term solvency. A high current ratio may be taken as adverse on account of the following reasons:

- The stock might be piling up because of poor sales.
- The amount might be locked up in debtors due to slack collection policy.
- The cash or bank balances might be lying idle because of no proper investment.

4.5.3.2 Liquid Ratio

This ratio is also known as Quick Ratio or Acid Test Ratio. This ratio is calculated by relating liquid or quick assets to current liabilities. Liquid assets mean those assets,

which are immediately converted into cash without much loss. All current assets except inventories and prepaid expenses are categorized as liquid assets. The ratio can be computed as:

Liquid Ratio = (Liquid Assets/Current Liabilities)

Liquidity ratio may also be computed by substituting liquid liabilities in place of current liabilities. Liquid liabilities means those liabilities which are payable with a short period. Bank overdraft and cash credit facilities, if they become a permanent mode of financing are to be excluded from current liabilities to arrive at liquid liabilities. Thus:

Liquid Ratio = (Liquid Assets/Liquid Liabilities)

This ratio is an indicator of the liquid position of an enterprise. Generally, a liquid ratio of 1:1 is considered as ideal as the firm can easily meet all current liabilities. The main difference in current ratio and liquid ratio is on account of inventories and therefore a comparison of two ratios leads to important conclusions regarding inventory holding up.

4.5.3.3 Debt-Equity Ratio

Debt-equity ratio is the relation between borrowed funds and owner's capital in a firm; it is also known as external-internal equity ratio. The debt-equity ratio is used to ascertain the soundness of long-term financial policies of the business. Debt means long-term loans i.e., debentures or long-term loans from financial institutions. Equity means shareholder's funds i.e., preference share capital, equity share capital, reserves less loss and fictitious assets like preliminary expenses. It is calculated in the following ways:

{Debts/Equity (Shareholder's Funds)} Or
{Debts/Long-term Funds (Shareholder's Funds + Debts)}

The main purpose of this ratio is to determine the relative stakes of outsiders and shareholders. Normally in India a debt equity ratio of 2:1 if it is calculated as (i) above or 0.67:1 if calculated as (ii) above is considered as ideal. This means that a company may borrow up to twice the amount of its capital and reserves or it may raise two-thirds of its long-term funds by way of loans. Generally loans are very profitable for shareholders since interest at a fixed rate only is payable whereas the yield generally is much higher and income-tax authorities allow interest as a deductible expenses, thus effectively reducing the interest burden of the company. A higher proportion would be risky because loans carry with them for obligation to pay interest at a fixed rate, which may become difficult if profit is reduced. However a lower proportion of long-term loans would indicate an undue conservation and unwillingness to take every normal risk. Both these affect the image of the company and the value placed by the market on shares.

4.5.3.4 Proprietary Ratio

This ratio is a variant of debt-equity ratio, which establishes, the relationship between shareholders funds and total assets. Shareholder's fund means, share capital both equity and preference and reserves and surplus less losses. This ratio is worked out as follows:

Proprietary Ratio = (Shareholder's Funds/Total Assets)

This ratio indicates the extent to which shareholder's funds have been invested in the assets.

4.5.3.5 Fixed Assets Ratio

The ratio of fixed assets to long-term funds is known as fixed assets ratio. It focuses on the proportion of long-term funds invested in fixed assets. The ratio is expressed as follows:

Fixed Assets Ratio = (Fixed Assets/Long-term Funds)

Fixed assets refer to net fixed assets (i.e., original cost-depreciation to date) and trade investments including shares in subsidiaries. Long-term funds include share capital, reserves and long-term loans.

This ratio should not be more than 1. It is the principle of financial management that not merely fixed assets but a part of working capital also should be financed by long-term funds. As such it is desirable to have the ratio at less than one i.e., say 0.67 to indicate the fact that the entire fixed capital plus a portion of the working capital are financed by long-term funds.

4.5.3.6 Debt-Service Ratio

This ratio is also known as Fixed Charges Cover or Interest Cover. This ratio measures the debt servicing capacity of a firm in so far as fixed interest on long-term loan is concerned. It is determined by dividing the net profit before interest and taxes by the fixed charges on loans. Thus:

Debt Service Ratio = (Net Profit before Interest and Tax/Interest Charges)

This ratio is expressed as 'number of times' to indicate that profit is number of times the interest charges. It is also a measure of profitability. Since higher the ratio, higher the profitability. The ideal ratio should be 6 to 7 times.

4.5.3.7 Capital Gearing Ratio

The proportion between fixed interest or dividend bearing funds and non-fixed interest or dividend bearing funds in the total capital employed in the business is termed as

capital gearing ratio. Debentures, long-term loans and preference share capital belong to the category of fixed interest/dividend bearing funds. Equity share capital, reserves and surplus constitute non-fixed interest or dividend bearing funds. This ratio is calculated as follows:

Capital Gearing Ratio = (Fixed Interest Bearing Funds/Equity Shareholder's Funds)

In case the fixed income bearing funds are more than the equity shareholder's funds, the company is said to be highly geared. A low capital gearing implies that equity funds are more than the amount of fixed interest bearing securities. This ratio indicates the extra residual benefits accruing to equity shareholders. Whether the concern is operating on trading on equity can be judged by this ratio.

4.5.4 Market Test Ratios

These ratios are calculated generally in case of such companies whose shares and stocks are traded in the stock exchanges. Shareholders, present and probable, are interested not only in the profits of the company but also in the appreciation of the value of their shares in the stock market. The value of shares in the stock market, besides other factors, also depends upon factors like dividends declared, earnings per share, the payout policy, etc., of the companies. The following ratios reflect the effect of these factors on the market value of the shares.

4.5.4.1 Earning Per Share (EPS)

This ratio measures the profit available to the equity shareholders on a per share basis. This is calculated as under:

EPS = (Net profit/No. of equity shares)

Ex: Suppose, the net income of company after preference dividend is Rs.40,000 and the number of equity shares is 6000 then,

EPS = (Rs.40,000/6000) = Rs.6.66 per share.

It should be noted that net income here is the net income in income statement for the period, after taking into consideration operating, non-operating and other items like income tax. It should be remembered that if any dividend is payable to the preference shareholders, it has to be deducted before arriving at net income for this purpose. This ratio is of considerable importance in estimating the market price of the shares. A low EPS means lower possible dividends and so lower market value, while a high EPS has a favorable effect on the market value of the shares.

However, the EPS alone does not reflect the effect of various financial operations of the business. Also, its calculation may be affected, to a considerable extent, by different

accounting practices and policies relating to valuation of stocks, depreciation, etc. Therefore, this ratio should be cautiously interpreted.

4.5.4.2 Price Earning Ratio

This ratio establishes relationship between the market price of the shares of a company and it's earning per share (EPS). It is calculated as under:

Price Earning Ratio (PER) = (Market value per equity share/Earning per share)

Ex: Assuming the market value of a share to be Rs.40 and the EPS Rs.6.66 per share as calculated in EPS example above, then the PER comes to (Rs.40/6.66) or 6 times.

This ratio helps in predicting the future market value of the shares within reasonable limits. It also helps in ascertaining the extent of under and over - valuation in the market price, thus pointing to the effect of factors generated by the company's financial position. This can be illustrated by the following example:
Ex: Suppose, the actual market value per share is Rs.45 while on the basis of PER and EPS it should be 6 times of EPS, i.e., Rs.6.66 x 6 = Rs.40. The excess of Rs.5 between anticipated and actual market price reflects the effect of general economic and political conditions, the image of the company, etc... which cannot be made out from company's financial statements.

A reciprocal of this ratio gives the capitalization rate of current earnings per share.

4.5.4.3 Payout Ratio

This ratio expresses the relationship between what is available as earnings per share and what is actually paid in the form of dividends out of available earnings. It is a good measure of the dividend policy of the company. A higher payout ratio may mean lower retention and plough-back of profits, a deteriorating liquidity position and little or no increase in the profit-earning capacity of the company. This ratio is calculated with the help of the following formula:

Pay-out Ratio = (Dividend per equity share/Earnings per share)

Ex: From the following statements, calculate the various ratios:

Condensed Income Statement of XYZ Co. for year ending March 31, 2007

(in Rs. '000)

	Rs.	% sales
Net Sales	600	100.0
Less: Cost of goods sold	360	60.0

Gross Profit	240	40.0
Operating expenses	156	26.0
Operating Profit	84	14.0
Interest	8	1.3
Income before tax	76	12.7
Income tax provision	38	6.4
Net Income after tax for the year	38	6.3

Balance Sheet of XYZ Co. (as on March 31, 2006 and 2007)

(in Rs. '000)

	March 31, 2006	March 31, 2007
Assets:		
Current Assets:	60	80
Cash	60	60
Account receivables (net)	100	120
Inventories	20	20
Pre-paid expenses		
	240	280
Total Current Assets		
Fixed Assets:		
Land	60	60
Building and structures	240	240
Less: Accumulated depreciation	120	140
Net Buildings structures	120	100
Total Fixed Assets	180	160
Other Assets:		
Goodwill and patents	---	20
Total Assets	420	460
Liabilities and Equities:		

Current Liabilities:		
Accounts payable	50	60
Wages and taxes outstanding	30	20
Income-tax payable	20	40
Total Current Liabilities	100	120
Long-term Liabilities:		
10% Mortgage debentures	80	80
Total Liabilities	180	200
Shareholder's Equity:		
Share capital (6000 shares of Rs.20 each fully paid)	120	120
Retained earnings	120	140
Total Shareholder's Equity	240	260
Total Liabilities and Equities	420	460

Solution:

(i) Current Ratio = Current Assets/Current Liabilities

2005-2006 = Rs.240,000/Rs.100,000 = 2.4

2006-2007 = Rs.280,000/Rs.120,000 = 2.3

It is clear from the above calculations that liquidity has slightly deteriorated in 2006-2007. However, it is still above the ideal current ratio, which is suggested as 2:1.

(ii) Debt-Equity Ratio (Debt/Equity)

2005-2006 = Rs.80,000/Rs.240,000 = 0.33

2006-2007 = Rs.80,000/Rs.260,000 = 0.31

The position has improved.

(iii) Acid Test Ratio or Quick Ratio

= Liquid or Quick Assets/Current Liabilities

2005-2006 = Rs.120,000/100,000 = 1.2

2006-2007 = Rs.140,000/120,000 = 1.17

This means that there has been a slight change in the quick ratio for the two periods. The ideal or standard acid test ratio is often taken to be 1:1 (or 100%) for a safe current financial position.

(iv) Debtor's Turnover Ratio

= Net Sales/Average Debtors

= Rs.600,000/Rs.60,000 = 10 times

It means that 10% of sales effected always remain to be realized.

Debt Collection Period:

= (Average Debtors x Days in a year)/Net Credit Sales

= (Rs.60,000 x 365)/Rs.600,000 = 36.5 days

This shows that the company's debts are collected after an average of 36.5 days.

(v) Inventory Turnover Ratio

This ratio is an important indication of the speed with which inventories are converted into sales. In other words, it reflects the degree of liquidity of inventories and their relationship with the turnover. It is calculated as:

Cost of Goods Sold/Average Inventory at cost

Average inventory is calculated by adding opening and closing inventory figures and dividing the total by 2. Thus, inventory turnover for 2006-2007

= Rs.360,000/Rs.110,000 = 3.27 times.

(vi) Sales Ratios

a) Sales to fixed assets or fixed assets turnover ratio:

Net Sales/Net Fixed Assets = Rs.600,000/Rs.160,000

= 3.75 times.

b) Sales to net worth:

Sales/Capital Net Worth = Rs.600,000/Rs.260,000

= 2.3 times.

c) Sales to working capital or working capital turnover ratio:

Sales/Working Capital = Rs.600,000/Rs.160,000

= 3.75 times.

(vii) Operating Ratio

= (Cost of Goods Sold + Operating Expenses x 100)/Sales

= (Rs.360,000 + Rs.156,000)/Rs.600,000 x 100

= 86%

(viii) Profit Ratios

a) (Gross Profit/Net Sales) x 100 = (Rs.240,000/Rs.600,000) x 100

= 40%

b) (Net Operating Profit/Net Sales) x 100 = (Rs.84,000/Rs.600,000) x 100

= 14%

It should be noted that fixed interest charges are not considered as a charge against net operation profits. Some writers calculate this ratio with net income (including non-operating items). In both cases income-tax is ignored.

Ex: You are given the following figures:

Current ratio	2.5
Fixed assets turnover ratio (on cost of sales)	2 times
Liquidity ratio	1.5
Net working capital	Rs.300,000
Average debt collection period	2 months
Stock turnover ratio (cost of sales/closing stock)	6 times
Fixed assets/shareholders net worth	0.80
Gross profit ratio	20%
Reserve and surplus/capital	0.50

Draw up the balance sheet of the company.

Solution:

Balance Sheet as on ....

	Rs.		Rs.
Share capital	500,000	Fixed assets	600,000
Reserves and surplus	250,000	Stock	200,000
Long-term borrowings (balancing figure)	150,000	Debtors	250,000
Current liabilities	200,000	Bank	50,000
	1100,000		1100,000

Workings:

If current liabilities	=	1
Current assets	=	2.5
It means the difference or working capital	=	1.5
Working capital or 1.5	=	Rs.300,000
Therefore, Current assets	=	Rs.500,000
Current liabilities	=	Rs.200,000
Liquidity ratio	=	1.5
And current liabilities	=	Rs.200,000
Liquid assets (bank and debtors) (200,000 x 1.5)	=	Rs.300,000
Stock (500,000 - 300,000, i.e., current assets - liquid assets)	=	Rs.200,000
Cost of sales (as stock turnover ratio is 6)	=	Rs.1200,000
Sales (as GP ratio is 20%, [1200,000 + (20/80 x 1200,000)])	=	Rs.1500,000
Fixed assets, 1200,000/2 as fixed assets turnover is 6	=	Rs.600,000
Debtors, 1500,000/6 Debt collection period being 2 months	=	Rs.250,000

Shareholder's net worth, (600,000/0.80) x 1	=	Rs.750,000
Out of shareholder's net worth, reserves and surplus	=	Rs.250,000
Therefore, Share capital	=	Rs.500,000

Ex: From the following information make out a statement of proprietor's funds with as much details as possible:

Current ratio	2.5
Liquidity ratio	1.5
Proprietary ratio (fixed assets/proprietary fund)	0.75
Working capital	Rs.60,000
Reserves and surplus	Rs.40,000
Bank overdraft	Rs.10,000

There is no long-term loan or fictitious asset.

Solution:

If current ratio is 2:5 it means that if current liabilities are 1, the current assets are 2.5. Therefore, difference = Rs.60,000, which is "1.5"

Therefore, Current liabilities	=	Rs.40,000
Current assets	=	Rs.100,000
Liquid assets (on 1.5 basis)	=	Rs.60,000
Stock	=	Rs.40,000 i.e., 100,000-60,000

To determine the fixed assets and capital figure:

If we take proprietary fund as x, then fixed assets = 0.75x

Proprietary fund + Current liabilities = Fixed assets + Current assets.

x + 40,000	=	0.75x + 100,000
0.25x	=	Rs.60,000 or
x	=	240,000

Out of Rs.240,000, reserves and surplus = Rs.40,000

Therefore, Capital is Rs.200,000/-

Ex: From the final accounts of Prudent Ltd. given below, calculate the following:

(i) Gross profit ratio; (iii) Current ratio;

(ii) Liquid ratio; and (iv) Return on investment ratio.

Trading and Profit and Loss Account for the year ended 31st March 2007.

		Rs.		Rs.
To Material consumed:			By Sales	85,000
Opening stock	9050		By Profit	600
Purchases	54,525		By Interest on investment	300
	63,575			

Less: Closing stock	14,000	49,575			
To Carriage inwards		1,425			
To Office expenses		15,000			
To Sales expenses		15,000			
To Financial expenses		3,000			
To Loss on sales of fixed assests		400			
To Net profit		15,000			
		85,900			85,900

Balance Sheet as on 31st March, 2007

		Rs.			Rs.
Share capital:			Fixed assets:		
2,000 equity shares of Rs.10 each,					
fully paid	20,000		Buildings	15,000	
General reserve	9,000		Plant	8,000	23,000
Profit and loss account	6,000		Current assets:		
Bank overdraft	3,000		Stock-in-trade	14,000	
Sundry creditors			Debtors	7,000	
For expenses	2,000		Bills receivable	1,000	
For others	8,000	10,000	Bank balance	3,000	25,000
	48,000		48,000		

Solution:

(i) Gross Profit Ratio = (Gross Profit/Sales) x 100

Gross Profit = Sales - Material consumed - Carriage inwards
= Rs.85,000 - Rs.49,575 - Rs.1,425
= Rs.34,000

Sales = Rs.85,000

Gross Profit Ratio = (Rs.34,000/Rs.85,000) x 100
= 40%

(ii) Current Ratio = Current Assets/Current Liabilities

Current Assets = Stock+Debtors+Bills Receivable+Bank Balance
= Rs. (14,000 + 7,000 + 1,000 + 3,000)
= Rs.25,000

Current Liabilities = Sundry Creditors + Bank Overdraft
= Rs. (10,000 + 3,000)
= Rs.13,000

Current Ratio = Rs.25,000/Rs.13,000
= 1.92 : 1

(iii) Liquid Ratio = Liquid Assets/Current Liabilities

Liquid Assets = Debtors + Bills Receivable + Bank Balance
= Rs. (7,000 + 1,000 + 3,000)
= Rs.11,000

Current Liabilities = Sundry Creditors + Bank Overdraft
= Rs. (10,000 + 3,000)
= Rs.13,000

Liquid Ratio = Rs.11,000/Rs.13,000
= 0.84 : 1

Note: Bank overdraft is treated as current liability.

(iv) RoI Ratio = (Operating Profit/Capital Employed) x 100

Operating Profit = Net Profit + Non-operating expense/loss - Non-operating income
= Net Profit + Loss on sale of fixed assets + Financial expenses - (Profit + Interest on investment)
= 15,000 + 400 + 1,500 - 900
= 16,000

Capital Employed = Share Capital + General Reserves + Profit and Loss Account
= (20,000 + 9,000 + 6,000)
= Rs.35,000

RoI Ratio = (Rs.16,000/Rs.35,000) x 100
= 45.71%

Note: Its assumed that 'profit' Rs.600 as an item of non-operating income and financial expenses as an item of non-operating expense. Since details are not given, these two items are excluded while calculating operating profit.

Ex: Syntex Limited's financial statements contain the following information:

	31/3/2006	**31/3/2007**
Cash	200,000	160,000
Sundry debtors	320,000	400,000
Temporary investments	200,000	320,000
Stock	1840,000	2160,000
Prepaid expenses	28,000	12,000
Total current assets	2588,000	3052,000

Total assets	5600,000	6400,000
Current liabilities	640,000	800,000
10% debentures	1600,000	1600,000
Equity share capital	2000,000	2000,000
Retained earnings	468,000	812,000

Statement of Profit for the year ended 31st March, 2007

	Rs.
Sales	4000,000
Less: Cost of goods sold	- 2800,000
Less: Interest	- 160,000
Net Profit	1040,000
Less: Taxes @ 50%	- 520,000
Profit after taxes	520,000
Dividends declared on equity shares	220,000

From the above, appraise the financial position of the company from the points of view of: (i) liquidity, (ii) solvency, (iii) profitability, and (iv) activity.

Solution:

(i) Liquidity ratios:

(a) Current ratio = Current Assets/Current Liabilities

2005-2006 = Rs.2588,000/Rs.640,000 = 4.04 : 1

2006-2007 = Rs.3052,000/800,000 = 3.81 : 1

(b) Acid test ratio = Quick Assets/Current Liabilities

2005-2006 = Rs.720,000/Rs.640,000 = 1.13 : 1

2006-2007 = Rs.880,000/Rs.800,000 = 1.10 : 1

(ii) Solvency ratios:

(a) Debt equity ratio: = 1. Total outsider's debts/Equity funds
2. Long-term debts/Equity funds

2005-2006 = 1. Rs.2240,000/Rs.2468,000 = 0.91 : 1
2. Rs.1600,000/Rs.2468,000 = 0.65 : 1

2006-2007 = 1. Rs.2400,000/Rs.2812,000 = 0.85 : 1
2. Rs.1600,000/Rs.2812,000 = 0.57 : 1

(b) Interest coverage ratio = EBIT/Interest charges
= Rs.1200,000/Rs.160,000
= 7.5 times

(iii) Profitability ratios:

(a) Gross profit ratio = (Gross profit/Sales) x 100
= (Rs.1200,000/Rs.4000,000) x 100
= 30%

(b) Net profit ratio = (Net profit/Sales) x 100
= (Rs.520,000/Rs.4000,000) x 100
= 13%

(c) Return on total assets = (Net profit/Total assets) x 100
= (Rs.520,000/Rs.6400,000) x 100
= 8.13%

(d) Return on capital employed
= (PBIT/Total capital employed) x 100

Capital Employed:	Rs.
Equity capital	2000,000
Retained Earnings	812,000
10% Debentures	1600,000
	4412,000

= (Rs.1200,000/Rs.4412,000) x 100
= 27.2%

(e) Return on equity funds = (PAT/Equity funds) x 100
= (Rs.520,000/Rs.2812,000) x 100
= 18.5%

(iv) Activity ratios:

(a) Debtors turnover ratio = Credit sales/Average accounts receivable
= Rs.4000,000/Rs.360,000
= 11.11 times

Note: In the absence of any information, all sales have been treated as credit sales.

(b) Stock turnover ratio = Cost of sales/Average stock
= Rs.2800,000/Rs.2000,000
= 1.4 times

(c) Total asset-turnover ratio
= Cost of goods sold*/Total assets

= Rs.2800,000/Rs.6400,000
= 0.44 times

* The sales figure can also be used.

The company's position is quite sound from the point of view of liquidity, solvency and profitability. However, its activity ratios particularly in terms of the utilization of total assets and holding of stock do not seem to be adequate.

4.6 Simple Analysis before Investing in the Shares

In order to win in Dalal Street, you have to carefully study the company you are interested in, the industry it belongs to, as well as the overall state of the economy. Typically, in a booming economy the stock markets are also buoyant. When the economy is down beat, on the other hand, the stock markets too grow subdued.

If a certain industry is doing well, the scrips of several companies in that industry record impressive gains. On the other hand, if an industry is facing serious problems, the companies in that industry register a decline in their share prices. The general investor's fundamental approaches to investment in equity shares is to find answers to the following questions:

- What are the current trends for the economy as a whole?
- How is the performance of selected industries?
- What is the current performance of a specific company?

TABLE: The 3-phase Fundamental Analysis

Phase	Nature of analysis	Purpose	Tools & Techniques
First	Economic analysis	To assess the general economic situation both within the country and internationally.	Economic indicators lead, lag and coincidental indicators.
Second	Industry analysis	To review prevailing conditions within a specific industry and its segments.	Performance indicators, aggregate demand and supply position, internal and external competition, government policies.
Third	Company analysis	To analyze the financial and non-finance aspects of a company to determine whether to buy, sell, or hold onto the shares of a particular company.	Non-financial aspects analysis like the promoter, management, product quality, corporate image, location, etc. Financial aspects like earnings per share, sales, profitability, dividend record, asset growth, etc.

Fundamental analysis is a time-honored, value-based approach based on a careful assessment of the fundamentals of an economy, industry and company. A fundamental analyst is not unduly influenced by what happens on a particular day on Stock Exchanges. He studies the general economic situation, makes an evaluation of an industry, and finally does an in-depth analysis, both financial and non-financial, of the company of his choice. Thus, it is a three-phase analysis of: (i) the economy, (ii) industry, and (iii) the company as shown in Table 6.1.

There is another approach, followed ardently by market operators and aggressive investors, called technical analysis.

A technical analyst believes that greater importance should be given to the technical aspects of the market such as prices, price alterations, and trading volume. The time perspective of a technical analyst is short term. Technical analysts follow the charts of share prices and interpret them in the context of various technical features of the market as a whole.

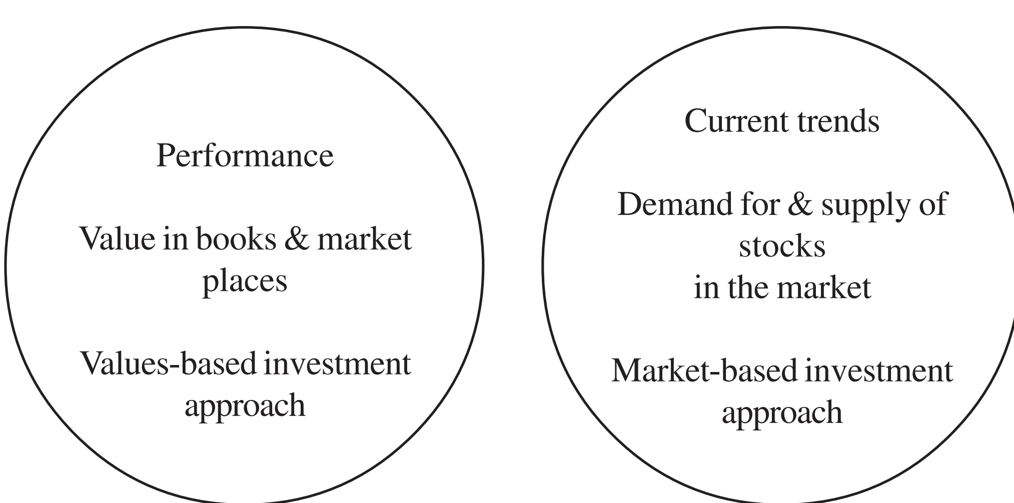


Chart: The two sides of the investment coin

Both these approaches to investment analysis - fundamental analysis and technical analysis, are like two sides to the investment coin as shown in the chart above.

4.6.1 Economic Analysis

The stock market does not operate in a vacuum. It is an integral part of the whole economy of a country, more so in a free economy like that of the United States and to some extent in a mixed economy like ours.

To gain an insight into the complexities of the stock market, one needs to develop a sound economic understanding and be able to interpret the impact of important economic indicators, which may be studied to assess the national economy as a whole. Some known as leading indicators predict what is likely to happen to the economy. Perfect examples of leading indicators are the unemployment position, rainfall and agricultural production, fixed capital investment, corporate profits, money supply, credit position and index of equity share prices.

Then there are the coincidental indicators, which highlight the current position. Some examples of coincidental indicators are Gross National Product, Index of Industrial Production, money market rates, interest rates and reserve funds with commercial banks.

Finally, there are lagging indicators, which explain what has already taken place. Some examples of lagging indicators are large-scale unemployment, piled-up inventories, outstanding debt, interest rates of commercial loans, etc.

While these indicators are useful, they are by no means infallible. One must use them with caution. These indicators can only be helpful in understanding economic trends and outlining your investment strategy intelligently.

TABLE: Economic indicators and their impact on the stock market

Indicator	Favorable impact	Unfavorable impact
Gross National Product	High growth rate	Slow growth rate
General employment position	Full or almost full employment	Underemployment and unemployment
Domestic savings rate	High	Low
Interest rates	Low	High
Tax rates	Low	High
Foreign exchange position	High	Low
Balance of trade	Positive	Negative
Balance of payments	Positive	Negative
Deficit financing	Low	High
Inflation	Low	High
Agricultural production	High	Low
Industrial production	High	Low
Power supply	High	Low
Freight movement of railways	High	Low
New house construction	High	Low

The table above summarizes the impact of some economic indicators on the stock market.

Forecasting economic trends has never been an easy exercise. Even well trained economists cannot do so accurately. Obviously, then, it is unrealistic to expect any individual investor to do so. One can refer to economic report, which are periodically published in newspapers and magazines. What we have attempted is to give you a broad idea about the importance of economic analysis in relation to stock markets. Interested readers may refer to the Economic Survey published every year by the Government of India, the RBI Report on Currency and Finance and many surveys and reports published from time to time by individual economists and financial experts.

4.6.2 Industry Analysis

The second phase of fundamental analysis consists of a detailed analysis of a specific industry; its characteristics, past record, present state and future prospects. The purpose of industry analysis is to identify those industries with a potential for future growth, and to invest in equity shares of companies selected from such industries.

4.6.2.1 Life Cycle of an Industry

Every industry, and company within a particular industry, undergoes a life cycle with four distinct phases as shown in chart: (a) pioneering stage, (b) expansion stage, (c) stagnation stage, and (d) declining stage. You would benefit by investing in an industry only in its pioneering and expansion stages. One should get out of industries, which have reached the stagnation stage, before they lapse into decline. The specific phase of an industry can be understood in terms of its sales (volume and value) and profitability.

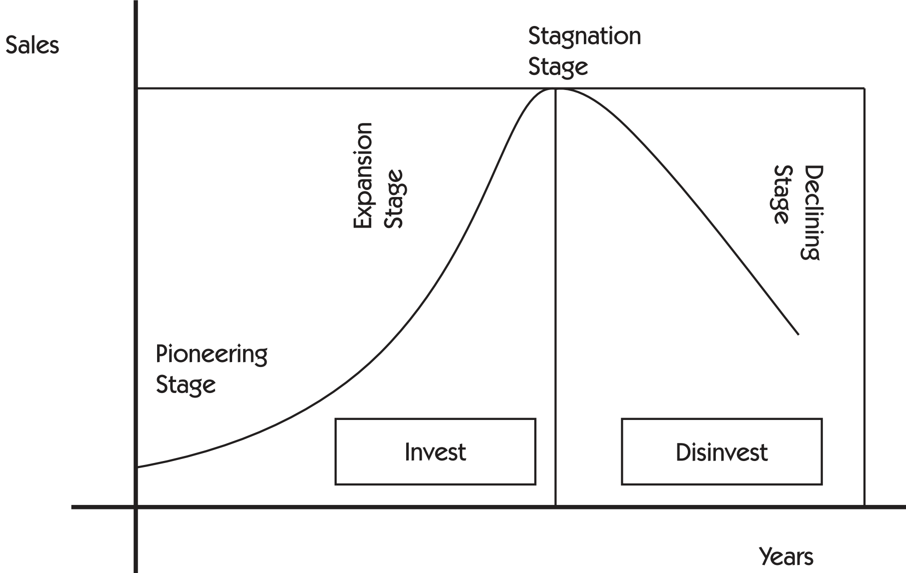


Chart: Life cycle of an industry and investment approach

Industries doing well today, may be faced with stagnation and decline in future, as a result of changes in social habits (e.g., the film industry is bound to suffer with the growing popularity of pirated VCDs), or from changes in statutory controls (e.g., the Indian Liquor Industry has been a victim of uncertain state-level policies on prohibition), or from excess capacity and consequent cut-throat competition, or as a result of rising prices. Such analytical insights into various industries are essential for investors.

Evaluation of an industry should encompass four critical areas:
1. What are the strengths of the industry?
2. What are its vulnerabilities?
3. What are the opportunities available to it?
4. What are the threats faced by it?

Such a comprehensive analysis is obviously not a simple exercise. You need to evaluate an industry with the help of all the financial and non-financial data you have access to. Relevant questions, which may be asked in conducting an industry analysis, are suggested below for illustrative purpose:

1. Are the sales of the industry growing or are they stagnant in relation to the growth in GNP?
2. What are the profit margins enjoyed by the industry? What is the important cost component? How likely is it to go up? What is the overall Return on Investment (ROI) for the industry?
3. Does the success or failure of the industry depend upon any single factor? If so, it could be very risky. In the past, the impressive success of certain companies in the ferro-silicon industry was due to the availability of power from certain state electricity boards at cheap rates.
4. Is the industry dominated by one or two major companies? Are they Indian or multinational companies?
5. What is the impact of taxation on the industry? Is the industry crippled by excessive doses of excise duties and other forms of direct and indirect taxes?
6. Is the industry affected very strongly by business cycles?
7. Are there any rigorous statutory controls in matters of raw materials allotment, price controls or distribution controls, etc.?
8. Is the industry highly competitive? How are the new entrants faring? Is it necessary to spend large sums of money on advertisement, selling, distribution, etc.?
9. Is there sufficient export potential? Is it being fully exploited? Are international prices comparable to domestic prices?
10. Is the industry highly technology oriented? What is the present stage of technological advance in the field?

11. How does the stock market estimate the industry? How are the leading scrips in the industry evaluated by the stock market?

Referring to the industry-wise equity index published by the financial dailies one can assess the market evaluation of an industry.

Industry analysis can be of immense help to an investor. When a particular industry is enjoying a boom, not only the leaders but even the laggards benefits. Similarly, when a particular industry is in the doldrums the marginal firms become extinct and the leaders suffer as well.

An intelligent investor, therefore, has to make a detailed industry analysis before he decides to buy or sell shares of a company in that industry.

4.6.2.2 Analysis of Competitive Conditions

In a free market environment, which is rapidly emerging in India, analysis of competitive conditions prevailing in an industry becomes crucial in the context of investment.

Market Structure: Competitive conditions may vary from industry to industry. Competitiveness is continuous from absolute monopoly to perfect competition, as shown in the Chart below.

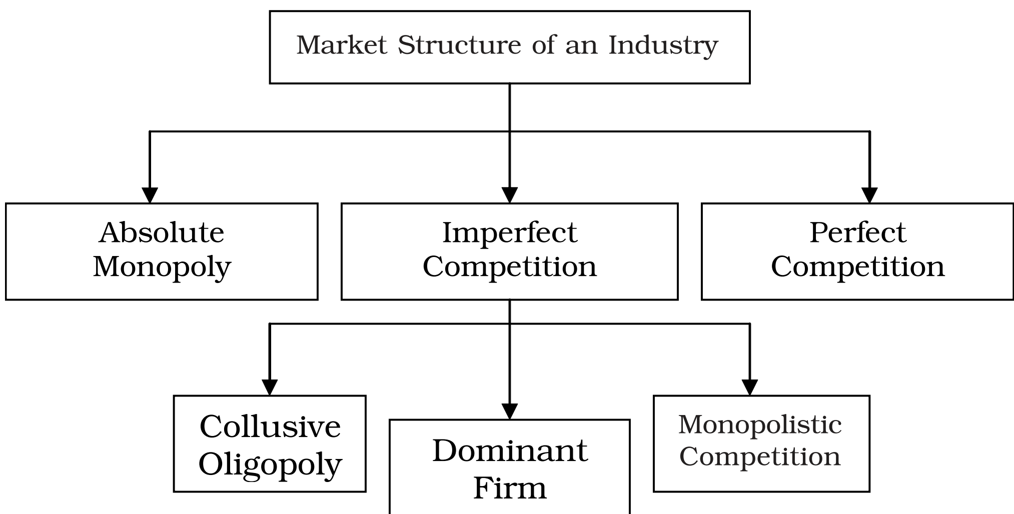


Chart: Market structure of an industry

Absolute monopoly is exercised through market dominance and lack of choice for customers. Eventually, these monopolies are destroyed by high costs, inefficiencies and powerful competition. Perfect competition occurs when no producer can affect the market price because there are numerous small firms offering an identical product or service. At the going market price, a perfect competitor can sell any amount of products. In a

perfectly competitive industry, profit margins tend to be very low and unattractive for newcomers. Imperfect competition lies between absolute monopoly and perfect competition. You have an intermediate form of imperfect competition. There are a few suppliers who can exercise some degree of control over price. It is said that most industries are imperfectly competitive - a blend of monopoly and competition. There are three models of imperfect competition:

- Collusive oligopoly : A few suppliers collude to form a cartel in order to avoid competition and maximize profits. Tyre manufacturers in India are often accused of cartelization.
- Dominant firm oligopoly : There is a dominant leader surrounded by a number of small competitors. The toothpaste market in India is a classic case of dominant firm oligopoly.
- Monopolistic competition : Products are differentiated under monopolistic competition, whereas they are identical under perfect competition. The bath soap industry is a good example of monopolistic competition in India with several differentiated soaps being marketed by a number of producers.
- Competitive Conditions : Salient factors, which influence competitive conditions prevailing in an industry are outlined below:

" Product differentiation advantages through patents, brand-value, technology, market-access, after-sales service, and specification in purchase orders, etc.

" Absolute cost advantages through lower costs, high volumes, control over key resources, learning and experience curves.

" Economies of scale through high capital costs, large scale operations, massive logistics management, etc.

Competitive Forces and Industry Profitability: Michael Porter of Harvard Business School identified five competitive forces that determine industry profitability:

" Entry of new competitors

" The threat of substitutes

" The bargaining power of the buyers

" The bargaining power of the suppliers

" The rivalry among the existing competitors.

According to Porter, the collective strength of these five competitive forces determine the ability of a firm in an industry to earn, on average, rates of return on investment in excess of the cost of capital. The five forces determine industry profitability because they influence the prices, costs and required investment of firms in an industry - the elements of return on investment.

4.6.2.3 Industry - wise Classification and Identification of Profitable Segments

There are numerous ways to classify and segment industries. Capital Market classifies listed companies into 200 categories. It may be observed from the table below, that there are certain segments like terry towels, woolen processing, silk weaving which are quite profitable, while segments like nylon and readymade apparel are not that attractive. Intelligent investors should understand and analyze the segments of each industry and identify profitable segments for investment.

TABLE: Textile Industry Classification

The textile industry is classified into 18 segments with the gross profit margins in %:

Segment	Margin	Segment	Margin
Textile machinery	15.1%	Acrylic fibre	10.8%
Composite mills	6.3%	Processing/Texturising	6.2%
Spinning mills	11%	Synthetic/Blended spinning	8.3%
Cotton yarn	17.5%	Synthetic weaving	7%
Terry Towels	44.9%	Silk weaving	18.2%
Manmade fibres - PFY/PSF	4.9%	Woolen processing	21.9%
Manmade fibres - Nylon	-5.4%	Worsted fabrics	12.2%
Manmade fibres - Poly yarn	7.6%	Hosiery & knitware	15.1%
Rayon	7.2%	Readymade apparel	2%

Source: Capital Market

4.6.3 Company Analysis

Even though a particular industry may be thriving, certain companies in that industry may not be doing very well. On the other hand, it is quite likely that a few companies would do well despite the rest of the companies in that industry facing difficulties. Hence, selecting individual companies for investment based on the industry performance is terribly tricky.

TABLE: A framework for general (non-financial) analysis of companies

Aspects	Review Questions
History, Promoters and Management	How old is the company? Who are the promoters? Is it family managed or professionally managed? What is the public image and reputation of the company, its promoters and its products?

Technology, Facilities and Production	Does the company use relevant technology? Is there any foreign collaboration? Where is the unit located? Are the production facilities well balanced? Is the size the right economic size? What are the production trends? What is the raw material position? Is the process power- intense? Are there adequate arrangements for power?
Product range, Marketing, Selling and Distribution.	What is the company's product range? Are there any cash cows among the product portfolio? And How distribution effective is the marketing network? What is the brand image of the products? What is the market share enjoyed by the products in the relevant segments? What are the effects and costs of sales promotion and distribution?
Industrial relations, Productivity and Personnel	How important is the labour component? What is the labour situation in general?
Environment raw government	Are there any statutory controls on production, price, distribution, material, etc? Is there any major legal constraint? What are the policies on the industry (domestic as well as related to imports and exports of the final products and raw materials)?

There are two major components of company analysis: financial and non-financial. A good analyst tries to give balanced weight age to both these aspects. Overemphasis on either may lead to distorted analysis.

Numerous non-financial aspects of a company have to be evaluated by investors. An investor should take qualitative impression of a company, Such information may be gathered from various sources like a prospectus, a stock exchange, annual reports of the company, news papers and magazine reports, etc. a useful framework is suggested in the table above. There could be various other aspects (e.g., research and development, new licenses issued, imports of foreign goods, emergences of substitutes, etc.), which may be included in such an analysis.

A very useful tool of the company analysis is SWOT analysis, which examines the strengths, Weaknesses, Opportunities And Threats in the specific context of a company, whereas opportunities and threats are incumbent upon the external environment. A typical SWOT analysis is presented in the Chart below.

	Positive	Negative
INTERNAL	**Strengths**	**Weaknesses**
	Latest Technology Lower delivered Cost Established products Committed manpower Advantageous location Strong finances Well- known brand names	Loose controls Untrained labour force Strained cash flows Poor product quality Family funds Poor public image
EXTERNAL	**Opportunities**	**Threats**
	Growing domestic demand Expanding export markets Cheap labour Booming capital markets Low interest rates	Price War Intensive competition Undependable component Suppliers Infrastructure bottlenecks Power cuts.

Chart: SWOT analysis

- High investment situations: Companies with growing strengths and opportunities are ideal for investment. The inherent strength of a company coupled with encouraging opportunities in the business environment provides an excellent backdrop for success.
- Medium Investment situations: Companies with a balanced profile of strengths and weaknesses on one hand and opportunities and threats on the other hand, may be considered for investment on the condition that the management is dynamic and experienced. A dynamic management can build on its strengths over a period of time exploiting opportunities to the full.
- Disinvestments situation: Three disinvestments situations are outlined below:

Disastrous Situations	Practically no worthwhile strengths and no real opportunities have only weaknesses and faces major threats, Very difficult to survive.
Chaotic Situations	High level of opportunities but bogged down by serious internal weaknesses. Management is tempted by opportunities and launches new projects and products. As a result of lack of internal strength, their projects fail one after another.
Complacent Situations	Has a fair degree of internal strength, but is crippled by lack of adequate opportunities. Slowly the strengths evaporate and the company becomes a shadow of its past.

Note: You should get out of these disinvestments situations as fast as possible.

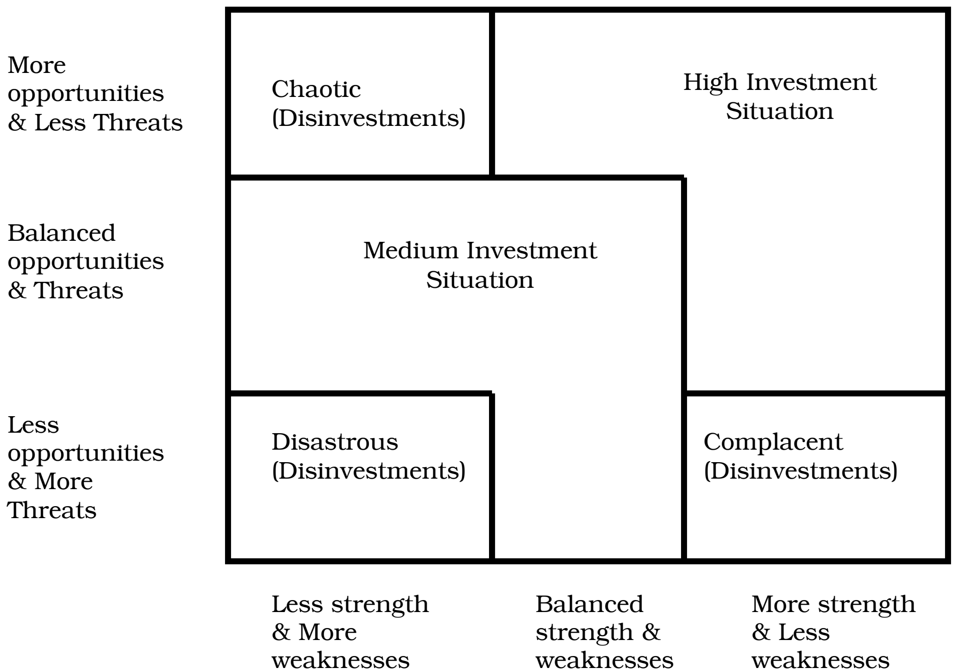


Chart: Investors and SWOT Analysis

4.6.3.1 The 'S' Curve Approach to Company Analysis

Numerous emerging blue chips companies undergo a typical life cycle, which resemble the 'S' curve, as shown in the chart below there are four clearly identifiable phases in the 'S' curve.

Initial Phase: The Company has recently been set up. The initial years include a lot of hard work to survive against all odds. Many companies suffer a great deal during this initial phase. Quite often, the entire equity may be wiped out during the first few years. These initial years are marked three distinguish features:

" High level of uncertainty regarding markets and technology.
" Slow rate of sales growth.
" Need for rapid changes in product design and manufacture.

Companies, which are able to withstand the pressure of the initial years slowly, enter the second phase, namely, the growth phase.

Note: The 'S' curve cannot strictly be compared with technical charts of share prices, because the later may not truly reflect the on-going financial situation prevailing in a company. The 'S' curve helps you to achieve a board perspective of the 4 phases in the life cycle of a company, and understand how well-managed companies create new 'S' curves in a planned manner.

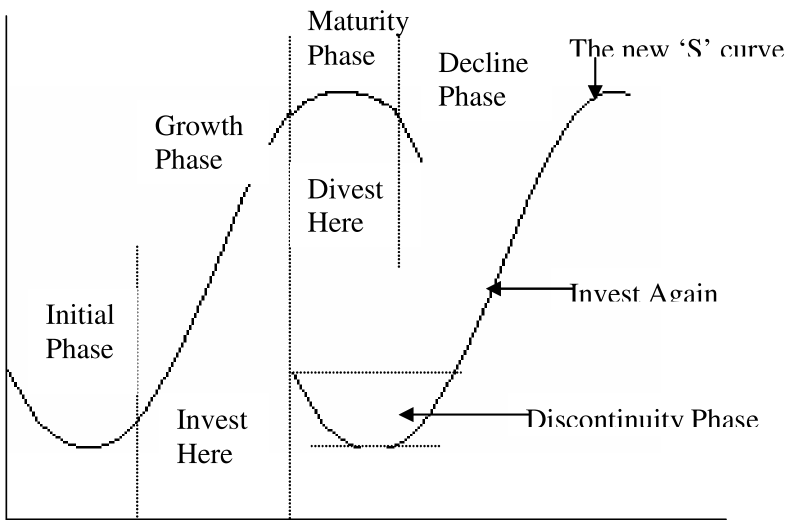


Chart: The 'S' Curve

Growth phase: The units which are able to survive the shocks of the first few years, stabilizes and grow rapidly capturing new markets, introducing new products and making new investments. This growth phase is characterized by:

- Rising demand.
- Greater predictability in market demands and technology.
- Entry of competition.

Note: This is the time to invest in emerging blue chips.

Maturity phase: In the third phase, the company stabilizes its operations after a hectic period of growth. The maturity phase is marked by four characteristics:

- Low market growth rate.
- Relative stability in technology.
- Intense competition.
- Imbalance in capacity related to business cycle.

Note: During this phase, things tend to slow down sometimes with an emphasis on increasing profit rather than achieving growth. Debts are normally rapid out of internal accruals. However, maturity slowly degenerates into stagnation and sometimes-even creeps into decline. When a company enters the maturity phase, it is time for the smart investor to quit.

Decline phase: The last phase in the life cycle of a company is the fatal decline, caused by new competition from aggressive players. This phase has three unique features:

- Emergence of substitutes leading to a decline in sales volume.
- Chronic over capacity.
- Low or negative industry profits.

Note: As a typical mature company loses its competitive nerve, it declines over a period of time into bankruptcy and winding up. At this bleak stage, there will be no takers for the scrip.

The discontinuity phase: Before an eventual decline sets in, you often find certain discontinuities intervening in the management of companies. The ownership may be transferred, a new management takes charge, fresh funds are pumped in, and new collaboration agreements are entered into. Such changes often lead to a turn-around and the companies fortune suddenly look up. A new 'S' curve starts, signaling a fresh investment opportunity for smart investors.

The new 'S' curve: The new 'S' curve can come after an unplanned discontinuity (like change of ownership and subsequent revival by the new team) or by planned change through sound corporate planning strategies.

But, The word of caution about the dangers of unrelated diversification. When large, established companies like ITC, HLL, Reliance, and etc. diversify into unrelated areas, they can manage their existing business well even if the diversification fails. When ITC had to write off the losses in its deep-sea fishing business, its basic corporate viability was not in any way jeopardized. But if relatively new companies like NCL Industries were to make a serious mistake in diversification (e.g. into Bison Boards), its basic function could be destroyed. Unrelated diversification is a luxury exclusively reserved for large companies, small companies can't afford it.

Note: When an emerging company diversifies into an unrelated area, no matter how promising it may appear, it is a clear signal for the smart investor to quit.

4.6.3.2 Sustainable Competitive Advantage and Leadership Analysis

Real profits are made in the long run only by those companies, which emerge as leaders and sustain their leadership position through a significant competitive advantage.

In the emerging free market system, companies aim to attain leadership in three phases as shown in the chart below.

Phase I: Cost Leadership	:	Produce the best quality goods and services at the lowest delivered cost. Increase the volume and gain a high market share
Phase II: Profit Leadership	:	Improve profitability and achieve profit leadership in terms of return on sales and return on capital employed by optional utilization of resources.

Phase III: Investment Leadership : Plough back the profits by investing in modernization and up gradation of hardware and software, which will keep your business ahead of competition. Today's investment leadership ensures tomorrow's cost leadership and day after tomorrow's profit leadership. Thus, the knowledge of finance holds the key for future success.

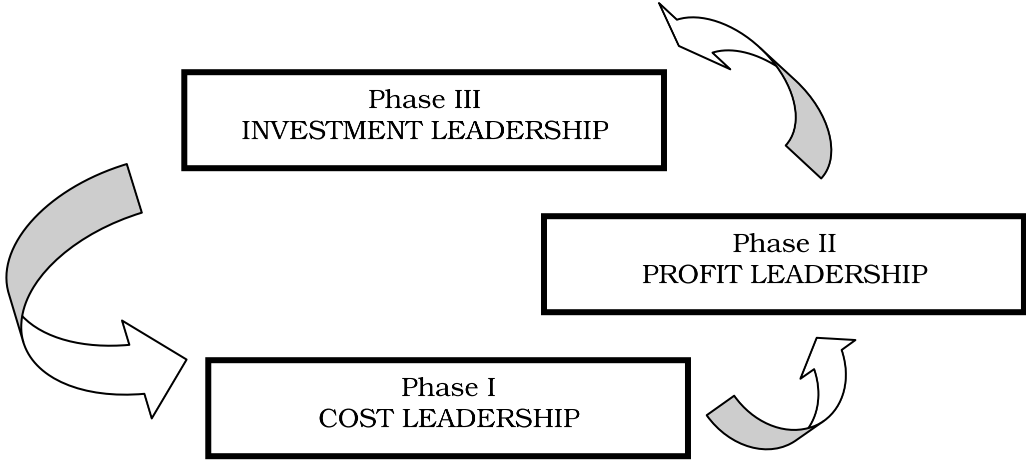


Chart: Three types of leadership positions

Sustainable Competitive Advantage : All leadership positions can, at best, be temporary unless they are backed by a sustainable competitive advantage. According to Michael Porter, the fundamental basis of above average performance in the long run is sustainable competitive advantage. Competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating value. Porter developed a simple model to explain three generic strategies, which companies follow to gain a sustainable competitive advantage.

Cost Leadership : Companies, which enjoy cost leadership, produce a standardized product at a low price, and then under-cut the competition.

Differentiation : Companies often market at a higher than average price goods or services that customers perceive as being unique in quality, design, brand or some other salient feature. They bank on differentiation for success.

Focus : Some companies concentrate on a small specialty market (a particular consumer group or geographic market), or a segment of the product line. They achieve success by focusing on specialty markets.

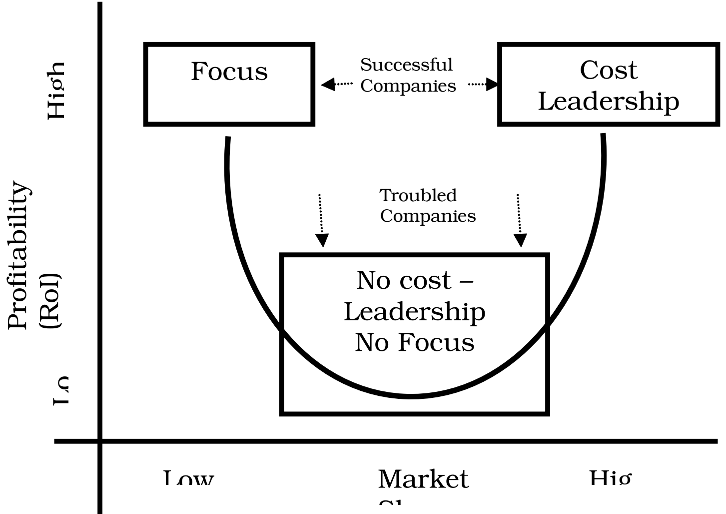


Chart: Generic strategies

From the above chart, it may be observed that:

- Companies in the upper left end of the curve (Focus) are profitable despite a small market share because their products or markets are specialized and command above average prices.
- Companies at the upper right end of the curve (cost leadership and Differentiation) are also successful because they either differentiate their products or have a large market share because of low prices and low costs.
- Companies in the lower mid-portion of the curve (Troubled companies) have low profits and a modest market share. They have nothing unique in their products or markets. They are also-ram

An extension of Porter's model further demonstrates that cost leadership leads to profit leadership, which, in turn, leads to investment leadership. A regenerative self-sustaining cycle is set in motion.

Troubled companies without cost leadership; focus and differentiation eventually perish as they get caught in the vicious cycle.

Relevance to investors: Analysis of competitive advantage and leadership of companies is very crucial for investors. They should ask the following questions and invest only if they are satisfied with the answers:

- Does the company enjoy any leadership position in terms of

  a. Cost leadership

  b. Profit leadership

  c. Investment leadership?

- Does the company enjoy any competitive advantage? Is it sustainable?
- Does the company follow any of the generic strategies to achieve leadership:
  - a. Cost advantage in a mass market
  - b. Differentiation in mass and niche markets
  - c. Focus in a niche market?

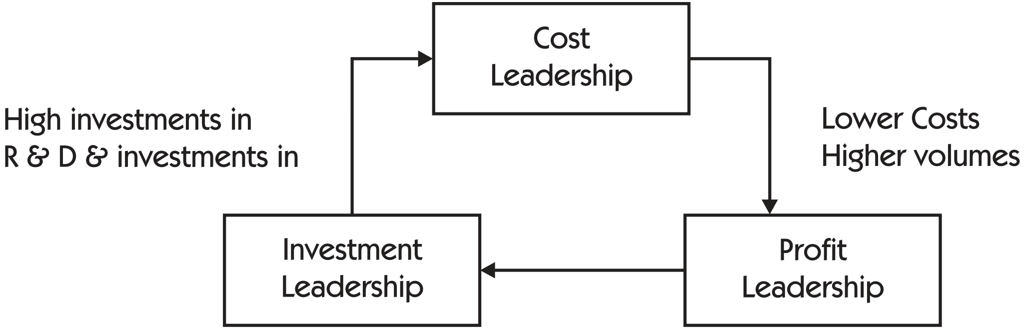


Chart: A Self - Sustaining Virtuous Cycle of Leadership

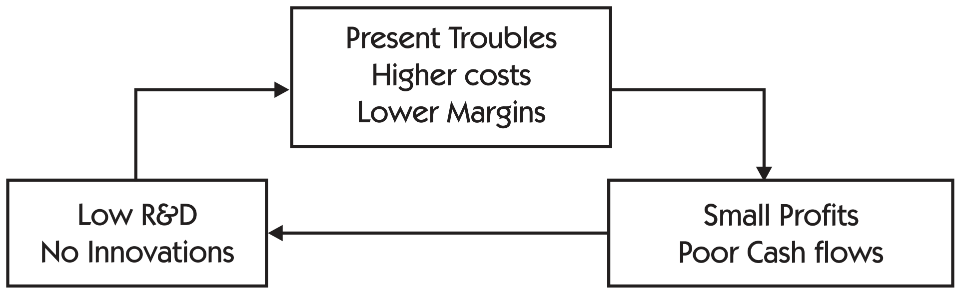


Chart: A vicious cycle snares also - ran companies

4.6.3.3 Financial Analysis of Companies

Equity analysts attach great importance to the following ratios in financial analysis:

1. Earnings per share (EPS): This indicates the post-tax profits earned per share. The higher the better.

EPS = (Profit after tax/No. of equity shares)

2. Price-Earnings ratio (P/E ratio): This ratio indicates the relationship between the market price of the share and the earnings per share. Whether a particular company's P/E ratio is high or low may be understood with reference to the all-industry averages, and also with reference to the specific industry average.

   P/E ratio = (Market price of the share/Earnings per share)

3. Book value per share: This ratio indicates the asset backing available for each share. The higher the book value per share, the better it is for the company.

   Book value per share = (Shareholder's funds/No. of equity shares)

4. Return on net worth: This indicates the post-tax return on the shareholder's funds. The higher the better.

   Return on net worth (%) = (Profit after tax/Shareholder's funds) x 100

5. Dividend cover: This indicates the extent to which equity dividends are protected by the earnings. The higher the better.

   Dividend cover = (Earnings per share/ Dividend per share)

6. Profitability of sales: This indicates the profitability or otherwise of the sales. The higher this ratio, the better the profitability.

   Profitability of sales (%) = (Profit before tax/Sales) x 100

7. Debt-Equity ratio: Debt (i.e., loans) is measured as a percentage of equity (i.e., shareholder's funds). The lower the ratio, the better.

   Debt-Equity ratio (%) = (Loans/Shareholder's funds) x 100

Several financial ratios can be added to the above list. For example: gross profit margin, cash earnings per share, interest cover, etc.

An equity investor is interested not so much in a historical P/E ratio, but a projected P/E ratio. The current market price has to be evaluated in the context of a projected P/E ratio for the current year, not based on the past year's data. Similarly, cash EPS is becoming more popular among investors in assessing the cash flow position of a company.

Inter-firm Comparisons: Financial ratios of firms operating in the same industry can be compared to assess their relative strengths and weaknesses. Obviously no two companies will be identical in all respects. However, if they are operating in the same industry, catering to the same type of customers, selling the same class of goods and services, it is necessary to compare their financial performance so that a meaningful appraisal can be attempted. Such an exercise is called Inter-firm comparison.

Inter-firm comparison of key financial ratios alerts one as to what is happening in a company vis-à-vis its competitors. Companies seek to identify their strengths and build on them. Also, be on guard against their vulnerabilities, to be forewarned is to be

forearmed: inter-firm comparison provides a business such a perspective in comparative terms.

After making a critical appraisal of the financial and non-financial dimensions of a company, the investor should combine the results of company analysis with the totality of fundamental analysis by relating it to economic and industry analysis. If such a comprehensive view is not taken, you may make wrong investment decisions.

4.6.4 How to Pick Good Stocks?

Picking profitable stock is not an easy job. As compared to other investment options, for investments in stock the process is long, variables many and as a result the burden of intelligent choices is heavy. Yet, perhaps no other product in the financial world can out perform a good equity product in the long run. Since the stakes are high and the temptation strong, what should an amateur investor do?

The advice is simple: stay away from stocks and instead choose mutual funds. The risks are less, and returns are comparable. At least for the common man with limited investible funds direct equity investment may be a strict no no. But what about the big investors who have a healthy appetite for risk?

If you have a large investible corpus, the time, skills and attitude just right for stock picking, probably you can earn more through direct investing in equities. Let's see how you can do this.

The essence of any trading business - be it securities or any other commodities - is buy low and sell high. But how can you sell the same stock at a price higher than the price you paid to buy it? It is possible only if you could spot a security which is under-priced relative to its true potential and the price moves as per your expectations during the period of your holding.

If a security's estimated value is above its market price, you can buy the stock and if it is below the market price, the security should be sold before its price drops. While you and many investors like you are simultaneously doing this buying and selling - the market price of the security settles down to equal its "estimated worth". If the stock price is higher than it's estimated worth, the price is driven down by sell orders and vice versa. Thus, in a perfectly efficient securities market, prices always equal values as a result of such buying and selling activities mentioned above. In reality however, what happens, is that the "estimated worth" of the security gets constantly adjusted as more news (be it positive or negative) about the securities comes pouring in and this flux is what makes securities analysis a very exciting but painstaking process. Unless you are up-to-date with the market information, your estimates of true worth of the security may go for a toss and consequently you may end up buying or selling securities at the wrong prices.

Therefore, how do you keep yourself up-to-date? What information is relevant for security analysis? Well, as discussed earlier in this chapter, there are essentially two main approaches to analyzing securities: Fundamental analysis and Technical analysis. Lets first acquaint ourselves with Fundamental Analysis again.

If you are studying earnings of companies, their management, the economic outlook, the individual company's competition, market conditions and several other factors - what you are making is a fundamental analysis. While on paper it may appear simple, it is not easy to spot under-priced or over-priced securities. Since the market is driven more and more by institutional players who employ professional equity-analysts, the stock prices are responding fairly swiftly to any announcements of growth in corporate earnings - expected or actual - much before the amateur investor has the time to react. Institutional investors monitor companies on a daily basis, through visits to companies and by interacting with other informed sources and thus come to possess unpublicized information first-hand. This enables them to reach at a buy or sell decisions soonest. This explains why security prices sometimes react noticeably to announcements of changed levels of income and/or dividends.

Many stock market veterans agree that in the long term, stock prices ultimately revolve around their intrinsic worth. This reinforces the necessity of making a complete, painstaking fundamental analysis, based on relevant facts, as the only logical way of estimating the true value of a going concern.
But you may ask, if the above is true, why do prices sometimes deviate from their projected path? This happens for several reasons:

- Not all the buyers and sellers in the market always have the up-to-date and precise information.
- Even if they do have it, they would have analyzed it differently.
- There are some times overwhelming, and mostly sentimental, reasons for the stock markets to go berserk like it happened recently when announcements of USA's sanctions on India or of the fall of the Union Government or of the Kargil war or of the Sep, 11th attack reached the marketplace.

So you now know from the above that while meticulous fundamental analysis can throw up a range of prices, it can never pinpoint a specific value for any stock at a given point of time. There, analysts adopt another approach known as Technical Analysis. This approach attempts to deal with this problem in the following manner: once a fundamentally strong stock is identified, Technical Analysis provides the tools that indicate the right levels to buy or sell stocks. Let's examine how this works and how far reliable these tools are.

As against a fundamental analyst, a technical analyst does not study the fundamental facts affecting a stock's value but follows a series of statistical charts on the past price behavior to arrive at a buy-sell recommendation.

For him, the maze of financial numbers about the company, such as its earnings and its competitive strengths or the Government policies affecting its business are all of little concern. Instead, he believes that all these facts and figures are easily and quickly summed up in the market price of the stock he tracks down. By totally focusing on charts of security market prices and on data relating to business volumes, he believes that he can make forecasts about security price. Is this approach right?

Today, there is a voluminous literature available on how to do technical analysis with some very advanced quantitative and graphical tools. Technical Analysis has become a big profession buy doubts still persist whether it has any value in predicting share price movements.

The key weakness of the approach lies in the method itself. Technical tools attempt to measure the supply and demand for a given market, presuming that the shifts in supply and demand occur gradually rather than instantaneously. Since these shifts are expected to continue as the price gradually reacts to both corporate and non-corporate news, the pattern in price changes is extrapolated to predict further price changes. But experienced stock market pundits confirm that technical analysis can neither measure supply nor demand nor predict prices.

They say so because markets are getting more efficient, any news is factored into share prices instantaneously without delay. That is, news that causes changes in the supply and/or demand for a security is supposed to cause sudden changes rather than gradual adjustments in supply and demand. As a result, many veterans agree that security price changes are a series of random numbers, which occur in reaction to the random arrival of news. Even if the share price moves in a set pattern, these movements could be a series of independent changes in supply and demand - all of which coincidentally happen to move the price in the same direction. It is wrong to assume that these movements can be used for predicting future prices.

4.6.5 Top-Down or Bottoms-Up?

Having accepted that fundamental research is a superior method of spotting opportunities, how do you go about it? Essentially there are two approaches to fundamental analysis. One is the top down and the other is bottoms up approach.

A top down approach means that if you want to invest in a particular share, it is better to first find about the economy, the industry in which the company is operating and then move on to analyze the company's performance. Each economy and each industry will have typical characteristics that affect the risk and return of a particular company, so understanding the macro variables provides a bird's eye view of all full picture to enable you to spot good investing opportunities.

The bottoms up approach on the other hand, is not concerned with the economy and

industry. It is assumed that the impact of these variables is reflected in the fundamentals of the company which if studied carefully, will reveal to you whether the scrip is a good buy or not.

In fact, irrespective of whether you are adopting a top down or bottoms up approach, you will still be studying not just the company but its industry and the economy as well. The approaches differ only in the sense that the order of the study is either company, industry and economy or the reverse. Why are economic and industry analysis so important? In markets like in India where Government policies still holds way over company's fortunes, understanding the implications of economic policies is a vital necessity for any stock market analyst.

Similarly industry analysis complements company analysis. Within a particular industry all firms are not homogenous units. They differ from each other in quality of products, brand image, managerial skill and scale of operations. These differences can cause significant deviation in their true worth. So it's essential that you go beyond industry analysis to focus on the company you want to invest in. Whether you do industry first and go to company next (top down) or vice versa (bottom up) is a matter of your individual style and doesn't matter much as long as you meticulously cover all the three subjects - economy, industry and company in which ever order that suits you the best.

4.6.6 Who can make huge money by Tracking Stocks?

Whether you do fundamental research or technical analysis, the idea is to spot good bargains - so that you can buy low and sell high. Do you have fair chance to do this?

Let's look who you are pitted against. There are essentially two types of investors in the market - the professionals and the naïve ones. If you are a naïve investor, you are more likely to invest on the basis of "hot tips" which in all probability are circulated by vested interests or on the basis of publicly available information, which must already have been factored in the valuations. If you are a professional investor, you obviously possess the resources to discover news and develop clear-cut estimates of intrinsic value, you can recognize significant deviations from intrinsic value and buy or sell shares that you feel are under or over priced.

When markets are driven by naïve investors who are most likely to buy at prices above the share's intrinsic value or vice versa, the share prices tend to move aimlessly as they deviate away from intrinsic values. Whereas, should the deviations be large enough, professional investors find it profitable to correct them by stepping into the markets. They buy shares, which are under priced or sell shares which are over priced thus bringing the prices back in line with the share's intrinsic worth. When the deviations are small, they do not bother to step in and allow prices to fluctuate freely in a narrow band.

The interesting thing is that while fundamental analysis helps to estimate the intrinsic

value of share, the estimate itself will not remain constant. No sooner that fresh news of a company's performance trickles in, professional investors accordingly revise their estimates of the share's true worth and bid accordingly. This explains why technical analysts who study price movements on the basis of historical data may always miss the bus. By the time they notice a strong price movement and respond, market might have already factored in the latest news. The effort is akin to trying to chase one's own shadow.

On the other hand, if you could discover news through fundamental analysis, interpret it and quickly respond to it, you can earn average returns. But the stock market game is so curious, many times fundamental analysis will not earn you a return more than what could be achieved with a naïve buy and hold strategy.

Earning returns beyond the above average levels is possible only if you carry out the most expert fundamental analysis and discover new information that is not readily available in the market and hence not factored in the prices as yet.

Now to the big question, is it worthwhile for you to learn about stock market research devoting all your time, energy and resources which you could otherwise gainfully employ in your career or profession and earn a handsome salary or income?

The truth in a nutshell is, unless you have the professional expertise and resources to undertake painstaking research, it's not worth your time to directly invest in stocks. You may as well choose a good equity mutual fund, which can easily earn the same above average returns without much of a bother.

4.7 Sources of Information

Fortunately, you need not worry about calculating all these ratios for all the companies. The BSE and NSE publish an Official Directory, which has a very comprehensive and loose-leaf weekly update service. Several leading magazines like Capital Market, Dalal Street Journal, Fortune India, Express Investment Week, Business India, Business World, Business Today, Chartered Financial Analyst, Outlook Money, etc., publish the fundamental data of a large number of companies periodically. If you can find time to analyze the financial data readily available from these sources it should be quite sufficient. Ready-to-use software packages are also available.

4.7.1 Understanding Annual Reports, Director's Reports etc.

The primary and most important source of information about a company is its Annual Report. By law, this is prepared every year and distributed to the shareholders.

Annual Reports are usually very well presented. A tremendous amount of data is given about the performance of a company over a period of time. Multicolored bar and pie charts are presented to illustrate and explain the growth of the company and the manner in which the revenues earned have been utilized. There are pictures of the factories; of newly acquired machines; of the Chairman cutting a ribbon and of the Board of Directors looking responsible.

The average shareholder looks no further. If an Annual Report is impressive, if the company has made a profit and if a reasonable dividend has been paid, he is typically content in the belief that the company is in good hands.

This must not be the criteria by which to judge a company. The intelligent investor must read the annual report in depth; he must read between and beyond the lines; he must peep behind the figures and find the truth and only then should he decide whether the company is doing well or not.

The Annual Report is broken down into the following specific parts:

- The Director's Report,
- The Auditor's Report,
- The Financial Statements, and
- The Schedules and Notes to the Accounts

Each of these parts has a purpose and a tale to tell. The tale should be heard.

A good analyst looks at the overall quality of the Annual Report before attempting a detailed analysis. Some pointers in this direction:

- Are there any serious qualifications in the report of auditors?
- Are there any important notes in the fine print at the end of the balance sheet?
- Are there any changes in accounting policies during the year?
- Are there any important observations in the report of directors?
- Do you notice any window-dressing of the balance sheet by manipulating inventories, depreciation, loans and advances, etc.?

Key Terms Introduced in the Chapter

- Trend Ratios
- Ratio Analysis
- Trend Percentage
- Operating Ratios
- Combined Ratios
- Sinking Funds
- Turnover Ratios
- Activity Ratios
- Financial Ratios
- Solvency Ratios
- Primary Ratios
- Secondary Ratios
- Supporting Ratios
- Net Margin
- Liquidity Ratio
- Gross Margin
- Sundry Debtors
- Cost of Good Sold
- Capital Employed
- Return on Asset
- Debtor's Velocity
- Economic Analysis
- Industry Analysis
- Company Analysis
- Pioneering Stage
- Expansion Stage
- Stagnation Stage
- Declining Stage
- SWOT Analysis
- Cost Advantages
- Collusive Oligopoly
- Assets
- Liabilities
- Investments
- Provisions
- Gross Block
- Depreciation
- Net Block
- Inventories
- Schedules
- Footnotes
- Debit
- Credit
- Sales
- Cash Sales
- Credit Sales
- Returns
- Net Sales
- Reserves
- Gross Profit
- Fixed Assets
- Share Capital
- Current Assets
- Secured Loans
- Liquid Ratio
- Quick Ratio
- Payout Ratio
- Top Down
- Bottoms Up
- Cost Ratios
- Income Tax
- Interest Cover
- Balance Sheet
- Operating Margin
- Income Statement
- Work-in-Progress
- External Analysis
- Internal Analysis
- Position Statement
- Vertical Analysis
- Acid Test Ratio
- Debt-Equity Ratio
- Proprietary Ratio
- Fixed Assets Ratio
- Unsecured Loans
- Current Liabilities
- Sources of Funds
- Gross Profit Ratio
- Net Profit Ratio
- Retained Earnings
- Horizontal Analysis
- Profitability Ratios
- Explanatory Ratios
- Debt-Service Ratio
- Price Earning Ratio
- Economic Indicators
- Lagging Indicators
- Leading Indicators
- Profit Leadership
- Cost Leadership
- Leadership Analysis
- Competitive Forces
- Absolute Monopoly
- Financial Statement
- Operating Expenses
- Cash Flow Statement
- Selling Expenses
- Interest on Debentures
- Balance Sheet Ratios
- Profit and Loss Ratios
- Market Test Ratios
- Reserves and Surplus
- Loans and Advances
- Proposed Dividend
- Operating Profit Ratio
- Application of Funds
- Return on Investment
- Return on Networth
- Capital Turnover Ratio
- Goods and Services
- Net Profit on Sales
- Net Operating Profit
- Net Profit after Tax
- Stock Turnover Ratio
- Working Capital Ratio
- Fixed Charges Cover
- Annual Reports
- Director's Reports
- Auditor's Reports
- Mixed Economy
- Economies of Scale
- Free Economy
- Technical Analysis
- Perfect Competition

• Book Value per Share • Window Dressing • Product Differentiation • Net Profit After Tax • Provision for Taxation • Input-Output Analysis • Earnings per Shares • Capital Gearing Ratio • Imperfect Competition • Fundamental Analysis • Profit and Loss Account • Cash and Bank Balance • Non-Operating Incomes	• Debt Collection Period • Coincidental Indicators • A-three Phase Analysis • Debtors Turnover Ratio • Life Cycle of an Industry • Sales to Capital Employed • Inter-firm Comparisons • Total Assets Turnover Ratio • Monopolistic Competition • Competitive Conditions • Dominant Firm Oligopoly • Inventory Turnover Ratio • Investment Leadership • Miscellaneous Expenditure	• Return on Capital Employed • Accounting Practices Board • General and Administrative Expenses • Net Profit before Interest and Tax • Profit and Loss Appropriation Account • Working Capital Turnover Ratio • Return on Shareholder's Funds • Comparative Statements • Common-size Statements • Sustainable Competitive Advantages • Fixed Assets Turnover Ratio • External-Internal Equity Ratio • Market Structure of an Industry • Non-Operating Expenses

Summary with Reference to Learning Objectives

" Financial and operating information is available from many sources, including daily newspapers. Various regulations in India require the issuance of annual reports and govern their content. In addition, publicly traded companies must disclose particular information on a quarterly basis. Financial information is provided to aid investors in assessing the risk and return of a potential investment. Creditors are particularly concerned about the solvency and liquidity of the issuer, while equity investors are more interested in profitability.

" Trend analysis is a form of financial statement analysis that concentrates on changes in the financial statements through time. It involves comparing relationships for a period of years or quarters. We can construct common-size financial statements by expressing the elements of the balance sheet as a percentage of total assets and the elements of the income statement as a percentage of total revenue. They enhance the ability to compare one company with another or to conduct a trend analysis over time.

" The basic financial ratios allow us to put numbers in perspective. By relating one part of the financial statements to another, they facilitate questions such as "Given the change in revenues, was the change in accounts receivable reasonable?" and "Is the company's inventory level, given its size, comparable to industry norms?" Liquidity ratios deal with the immediate ability to make payments. Solvency ratios

deal with the longer-term ability to meet obligations. Creditors often incorporate such ratio into debt covenants to protect lenders' rights. Investors use profitability ratios to assess operating efficiency and performance. Return on equity (ROE) is the most fundamental profitability ratio for equity investors because it relates income to the shareholder's investment. An earnings per share (EPS) is a fundamental measure of performance.

" If you are studying earnings of companies, their management, the economic outlook, the individual company's competition, market conditions and several other factors - what you are making is a fundamental analysis. As against a fundamental analyst, a technical analyst does not study the fundamental facts affecting a stock's value but follows a series of statistical charts on the past price behavior to arrive at a buy-sell recommendation. A top down approach means that if you want to invest in a particular share, it is better to first find about the economy, the industry in which the company is operating and then move on to analyze the company's performance. The bottoms up approach on the other hand, is not concerned with the economy and industry. It is assumed that the impact of these variables is reflected in the fundamentals of the company which if studied carefully, will reveal to you whether the scrip is a good buy or not.

Questions for Practice

Short Answers

1. What is an Annual Report?
2. Which features of an Annual Report should one read carefully?
3. What do these sources of funds represents?
4. What is the difference between Equity shareholders and preferential shareholders?
5. What is the difference between secured and unsecured loans under Loan Funds?
6. What is meant by application of funds?
7. What are Current Liabilities and Provisions and Net Current Assets in the balance sheet?
8. What do the sub-headings under the Fixed Assets like 'Gross Block', 'Depreciation', 'Net Block' and 'Capital-Work in Progress' mean?
9. What is top-down or bottoms-up approach?
10. What is the relevance of sustained competitive advantage to an investor?

Long Answers

1. Which are the factors that influence the price of a stock?
2. What is meant by the terms Growth Stock/Value Stock?
3. How to go about systematically analyzing a company?
4. What is a Balance Sheet and Profit and Loss Account Statement? What is the difference between Balance Sheet and Profit and Loss Account Statements of a company?
5. How is balance sheet summarized?
6. What does a Profit and Loss Account statement consists of?
7. What should one look for in a Profit and Loss account?
8. Explain the significance of ratio analysis in financial market management.
9. Explain briefly the different ratios that are commonly used and show how they are useful in financial analysis.
10. Explain different ratios coming under: (a) Profit ratios; (b) Overall measures ratio.
11. Explain the uses of ratio analysis. What are limitations of ratio analysis?
12. Write short notes on: (a) Liquidity test ratio; (b) Acid test ratio; (c) Profitability test ratios; (d) Turnover ratios.
13. What is the difference between internal and external balance sheet analysis?
14. What do you know about: (a) Solvency ratios? (b) Equity ratios? (c) Operating ratios? (d) Cover? (e) Current ratio?
15. What is the formula for cover?

16. In what ways can "profit" and "capital employed" be interpreted?
17. What are the following and how are they recognized? (a) Over trading; (b) Under trading.
18. On what two different bases can shares be valued, and which basis should be selected for a given share valuation?
19. Are non-financial items an important consideration in balance sheet analysis?
20. Explain the concept of interpretation and criticism of financial statements?
21. What are the objectives of financial statements?
22. Explain the various ways of presentation of financial statements.
23. How will you interpret and analyze financial statement presented to you?
24. What is the common size balance sheet and income statement? Explain the technique of preparing common size balance sheet.
25. What are the trend ratios? Explain the technique of computing trend ratios.
26. How to pick good stocks? Who can make huge money by tracking stocks?
27. Explain the types of leaderships for sustainable competitive advantages?
28. Explain the 'S-Curve' approach to company analysis?
29. Explain the framework for general (non-financial) analysis of companies?
30. Explain the competitive conditions and the five-force model for Industry analysis?

Problems to Solve

1. On the basis of the following figures derived from the accounts of a company, prepare a report on the level of efficiency of financial and operational management of the company:

Year	Capital Turnover Ratio	Net Profit on	ROI (%) Sales (%)	Current Ratio
1	1.0	8	8	6.0
2	2.0	10	20	4.0
3	3.0	11.5	34.5	2.0
4	5.0	13	65	0.5

2. The profit and loss and balance sheet of Happy Ltd. is given below:

P&L Account for the year ended 31st March, 2007

	Rs.		Rs.
To Opening stock	90,000	By Sales	900,000
To Purchases	560,000	By Closing stock	90,000
To Wages	214,000		
To Gross profit	126,000		
	990,000		990,000
To Salaries	16,000	By Gross profit	126,000
To Electricity	10,000		
To Mis. expenses	10,000		
To Depreciation	30,000		
To Net profit	60,000		
	126,000		126,000

Balance Sheet as on 31/3/2007

	Rs.			Rs.
Share capital:		Fixed assets		540,000
Equity shares	180,000	Less: Depreciation	150,000	390,000
Reserves and surplus	120,000			
Secured loans	210,000	Current assets:		
		Stock	90,000	
Current liabilities:		Sundry debtors	105,000	
Sundry creditors	90,000	Cash	15,000	210,000
	600,000			600,000

Discuss under the following important functional groupings the usual ratios and comment on the financial strength of the company:

(i) Liquidity and solvency test ratios;

(ii) Profitability test ratios; and

(iii) Overall measures ratios.

3. Prepare Balance Sheet and Profit and Loss Account from the following information:

Capital	Rs.400,000
Working capital	Rs.180,000
Bank overdraft	Rs.30,000

There is no fictitious asset. Current assets contain only stock, debtors and cash. The following additional data is also available:

(i) Closing stock is 20% higher than opening stock.

(ii) Current ratio - 2.5

(iii) Quick ratio - 2.0

(iv) Proprietary ratio - 0.6 (Fixed assets: Proprietary fund)

(v) Gross profit ratio - 20% (of sales)

(vi) Stock velocity - 5

(vii) Debtor's velocity - 73 days

(viii) Net profit ratio - 10% (to average capital employed).

4. Prepare a proforma income statement for the month of April, May and June for Eastern Ltd. from the following information:

a. Sales are projected at Rs.450,000, Rs.480,000 and Rs.430,000 for April, May and June respectively.

b. Cost of goods sold is Rs.100,000 plus 30% of selling price per month.

c. Selling expenses are 4% of sales.

d. Rent Rs.15,000 per month.

e. Administrative expenses for April are expected to be Rs.120,000 but are expected to rise 2% per month over the previous month's expenses.

f. The company has Rs.500,000 of 12% loan, interest payable monthly.

g. Corporate tax expected is 40%.

5. The Newman Company Ltd. is in the midst of a promotional campaign to boost sales. In 2006-2007 an additional Rs.70,000 was spent on advertising. Presented below are revenue and expense data for the company.

	2006-2007 (Rs.)	**2005-2006 (Rs.)**
Sales	816,000	656,500
Sales returns and allowances	16,000	6,500
Cost of goods sold	400,000	312,000
Selling expenses	200,000	130,000
General expenses	120,000	78,000
Miscellaneous income	6,400	6,500
Income-tax	32,000	67,600

You are required to prepare a comparative statement for the year 2006-2007 and 2005-2006 for the company. Also comment on the relationships revealed in the comparative income statements.

CHAPTER 5

Commodities Markets - Introduction

LEARNING OBJECTIVES

After studying this chapter, you will be able:

- To track the development of commodity markets in India.
- To understand the basic fundamentals of physical and futures commodity markets.
- To understand the main difference between the physical and futures markets.
- To understand how commodity futures market perform the price risk management function of an economy.
- To understand the salient features of select agricultural and precious metal commodities.

Commodities have been in our lives ever since the civilization started. The very reason for this lies in the fact that commodities represent the fundamental elements of utility for human beings. The term commodity refers to any material, which can be bought and sold. Commodities in a market's context refer to any movable property other than actionable claims, money and securities. Commodity can be understood as a basic good used in commerce that is interchangeable with other commodities of the same type. Commodities are most often used as inputs in the production of other goods or services. The quality of a given commodity may differ slightly, but it is essentially uniform across producers. A commodity can be a physical substance, such as food, grains, metals, oils, etc. The term is sometimes used more generally to include any product, which trades on a commodity exchange (an exchange for buying and selling commodities for future delivery). The price of the commodity is subject to supply and demand factors. The trading of the basic agricultural commodities in futures form began in order to avoid risk. For example, a farmer risks the cost of producing a product ready for market at sometime in the future because he doesn't know what the selling price will be. This resulted in trading mechanism called trading in futures. Commodity futures are contracts to buy or sell a commodity at a specific price and on a specific delivery date in future.

In the early days people followed a mechanism for trading called Barter System, which involved exchange of goods for goods. This was the first form of trade between individuals. The absence of commonly accepted medium of exchange had initiated the need for Barter System. People used to buy those commodities, which they lack and sell those commodities, which were in excess with them. The commodities trade is believed to have its genesis in Sumeria. The early commodity contracts were carried out using clay tokens as medium of exchange. Animals are believed to be the first commodities, which were traded, between individuals. The internationalization of commodities trade can be better understood by observing the commodity market integration occurred after the European Voyages of Discovery. The development of international commodities trade is characterized by the increase in volumes of trade across the nations and the convergence and price related to the identical commodities at different markets. The major thrust

for the commodities trade was provided by the changes in demand patterns, scarcity and the supply potential both within and across the nations.

5.1 Development of Commodities Markets

In the view of the development of commodities markets, integration plays a major role in surmounting the barriers of trade. The development of trading mechanisms in the commodities market segment largely helped the integration of commodities markets. The major thrust for the integration of commodities trading was given by the European discoveries and the march of the world trade towards globalization. The commodities trade among different countries was originated much before the voyages of Columbus and Vasco Da Gama. During the first half of the second millennium, India and China had trading arrangements with Southeast Asia, Eastern Europe, the Islamic countries and the Mediterranean nations. The advancements in shipping and other transport technologies had facilitated the growth of the trade in this segment. The unification of the Eurasian continent by the Mongols led to a wide transmission of people, ideas and goods. Later, the Black Death of 1340s, the killer plague that reduced the population of Europe and Middle East by one-third, has resulted in more per capita income for individuals and thus increased the demand for Eastern luxuries like precious stones, spices, ceramics and silks. This augmented the supply of precious metals to the East. This entire scenario resulted in the increased reliance on Indian Ocean trade routes and stimulated the discovery of sea route to Asia.

The latter half of the second millennium is characterized by the connectivity of the markets related to the Old and the New worlds. In the year 1571, the city of Manila was found, which linked the trade between America, Asia, Africa ad Europe. During the initial stages, because of the high transportation costs, preference of trade was given to those commodities, which had high value to weight ratio. In the aftermath of the discoveries huge volumes of silver was pumped into world trade. With the discovery of the Cape route, the Venetian and Egyptian dominance of spice exports was diluted. Subsequently, Asia has become the prime trader of spices and silk and Americas became the prominent exporter of silver.

With the establishment of commodity exchanges, a shift in the investment patterns of individuals has occurred as investors started recognizing commodity investments as an alternative investment avenue. The establishment of these exchanges has benefited both the producers and traders in terms of reaping high profits and rationalizing transaction costs. Commodity exchanges play a vital role in ensuring transparency in transactions and disseminating prices. The commodity exchanges ensured the standard of trading by maintaining settlement guarantee funds and implementing stringent capital adequacy norms for brokers. In the light of these developments, various commodity based investment products were created to facilitate trading and risk management. The commodity based products offer a huge array of benefits that include offering risk-return trade-offs to investors, providing information on market trends and assisting in framing asset allocation

strategies. Commodity investments are always considered as defensive because during the times of inflation, which adversely affects the performance of stocks and bonds, commodities provide a defense to investors, maintaining the performance of their portfolios.

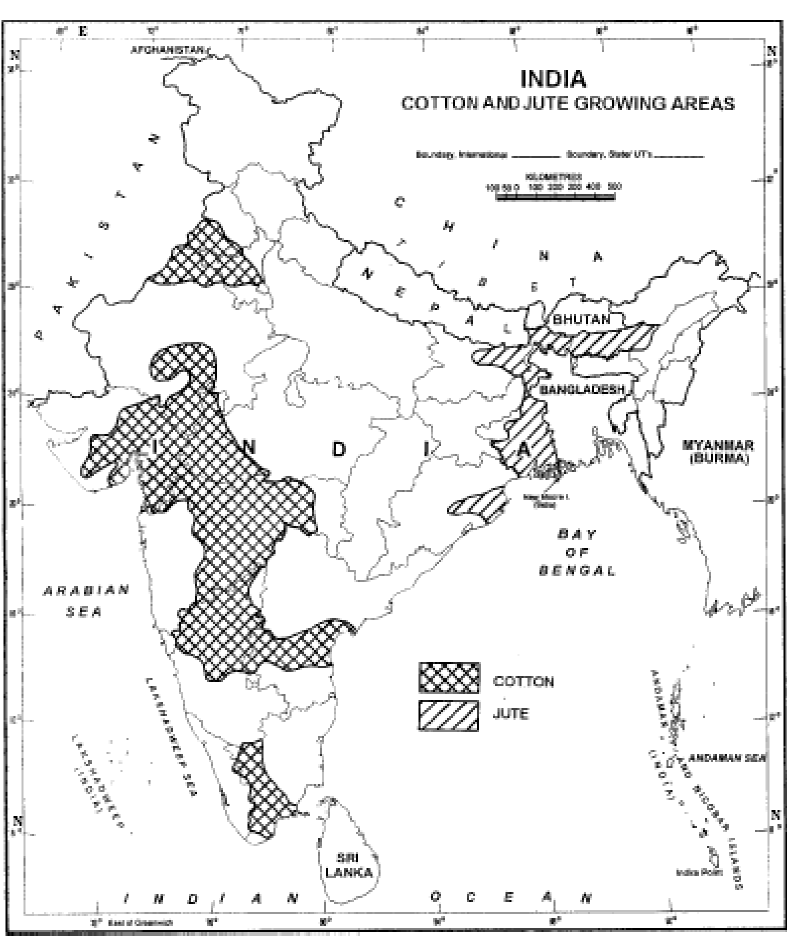
In the eighteenth and nineteenth century, commodity trade was largely influenced by the shifts in macro economic patterns, the changes in government regulations, the advancement in technology, and other social and political transformations around the world. The 19th century has seen the establishment of various commodities exchanges, which paved the way for effective transportation, financing and warehousing facilities in this arena. In a new era of trading environment, commodities exchanges offer innumerable economic benefits by facilitating efficient price discovery mechanisms and competent risk transfer systems.

5.2 Agricultural Commodities

The National Commodity and Derivatives Exchange Ltd. (NCDEX) started trading in the following agricultural commodities – Refined soy oil, mustard seed, expeller mustard oil, RBD palmolein, crude palm oil, medium staple cotton and long staple cotton. Of these we study cotton in detail and have a quick look at the others.

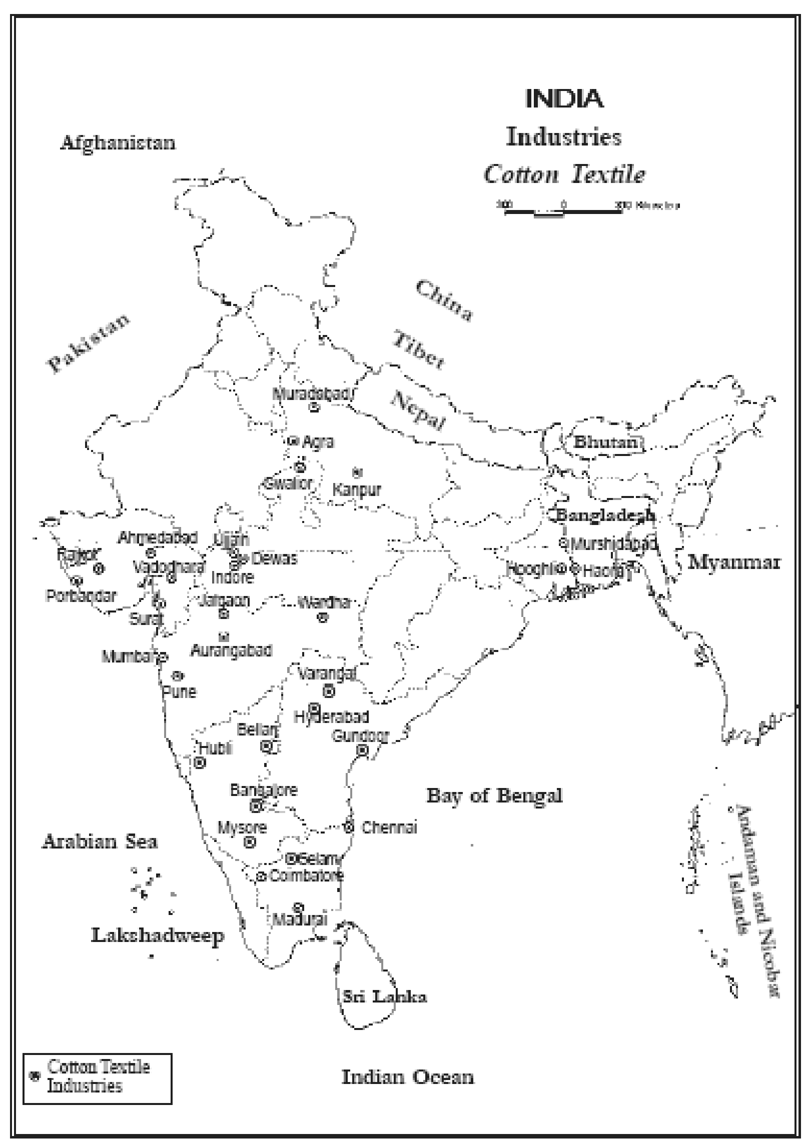
5.2.1 Cotton

Areas where Cotton is Cultivated in India



Cotton has a marked importance among the agricultural products, as it is the major source of clothing to the world. Besides this use of cotton, it is also used in various industrial applications. Hence, it is among the most cultivated and traded commodities on the planet. Cotton is a creamy white soft fiber that is primarily used to manufacture textile and garments throughout the world. Cotton is derived from around the seeds of the cotton plant, which is somewhat bushy in appearance and grows well in tropical and semi-tropical climates. The plant has leaves divided in three parts and capsule shaped seeds around which the soft white fiber grows. Cotton fiber obtained from the plant is first processed to remove proteins from it. The remaining is a natural polymer having properties like strong, durable and absorbent, which is spun into threads for further use. The by-products of cotton include cottonseed, staple cotton, cotton yarn and cottonseed oilcake.

Cotton Textile Industries in India



5.2.1.1 Cultivation

Cotton is a tropical crop as it grows in hot and humid climatic conditions. These conditions are present in the areas close to the equator like southern part of North America, Northern Africa and Asia. At the time of harvesting it needs a dry weather to get a good yield. There are a whole lot of methods present to protect the cotton crops from weeds and diseases. The planting time of cotton crops in the world varies vastly from February to June. In India, the crop is cultivated as a khariff crop as it is sown in the months of March to September. The mature crop is harvested in the months of November to March. The crop starts reaching to the Indian markets from the months of November to March.

5.2.1.2 Major Producers of Cotton

Country	2004-05			2005-06		
	Area	Prodn.	Yield	Area	Prodn.	Yield
World	35,976	120,232	728	35,194	111,529	690
India	9,000	18,900	457	9,125	18,400	439
China	5,690	29,000	1,110	5,100	25,500	1,089
USA	5,284	23,251	958	5,533	22,282	877
Brazil	5,284	23,251	958	5,533	22,282	877
Pakistan	3,190	11,300	771	3,150	10,000	691
Uzbekistan	1,456	5,200	778	1,450	4,800	721
Turkey	700	4,150	1,291	630	3,700	1,279
EU	466	2,301	1,075	456	2,201	1,051
Australia	314	3,000	2,080	285	2,400	1,833
Egypt	307	1,300	922	270	1,150	927
Syria	234	1,600	1,489	220	1,375	1,361
Cameroon	220	500	495	200	465	506
Kazakhstan	216	680	685	200	625	680
Israel	14	119	1851	10	100	2,177

Source: USDA, September 2005.

Global Scenario: China, United States of America, India, Pakistan, Brazil, Uzbekistan, Turkey, European Union and Australia.

Indian Scenario: The cotton producing states in India is: Maharashtra, Gujarat, Andhra Pradesh, Haryana, Punjab, Rajasthan, Karnataka, Tamil Nadu and Madhya Pradesh.

States	2004-05		
	Area	Production	Yield
All India (Total)	89.60	232.00	440
Maharashtra	30.49	52.00	290
Gujarat	19.95	62.00	528
Andhra Pradesh	11.42	32.50	484
Punjab	5.08	16.50	552
Karnataka	5.33	9.00	287
Haryana	6.50	15.00	392
Rajasthan	2.48	10.50	720
Madhya Pradesh	5.86	16.00	464
Tamil Nadu	1.63	5.50	574
Others	0.86	1.00	-

5.2.1.3 Factors Influencing Cotton Market

- Relationship with other competitive fibers and world demand for consumer textile;
- Discovery of new cotton markets
- Fluctuations in domestic cotton production in response to the vagaries of weather and pest attacks. Delays in the arrival of cottonseed for crushing.
- Price and other policies of the government regarding the cotton sector (for example Government fixes Minimum Support Price in India)
- Import-export scenario in the country
- Fluctuation in currency value

5.2.2 Crude Palm Oil

Palm oil is fatty edible oil, yellowish in color, derived from the flesh and the kernel of the fruit of the oil palm tree. The oil palm tree is a tropical, single stemmed tree having feather like leaves and a height of around 20 meters. The fruits of this tree grow in bunches, are reddish in color, and have a single seeded kernel inside.

Palm oil is used in various forms such as crude palm oil, crude palmolien, refined bleached deodorized (RBD) palm oil, RBD palmolien and palm kernel oil.

Besides being used as edible oil, it is used in the manufacturing of soaps, ointments, cosmetics, detergents, and lubricants.

5.2.2.1 Cultivation

Palm trees are generally grown in the tropical (hot and humid) conditions. It can survive in flood conditions and a high water table. It can be cultivated on a various types of soil but the plantation requires a well-drained soil and if it is not provided like in the sandy or clayey soil, the yield of the crop is adversely affected. The propagation of the tree is done with the help of its seed after providing proper treatment. The tree produces a little or no fruit in the first three years. But after that, the tree begins to produce fruits, which are harvested when they become ripe.

5.2.2.2 Major Producers of Crude Palm Oil

Global Scenario: Palm oil is derived from the oil palm tree, which is cultivated in over 42 countries of the world and is largely used as edible cooking oil. The major producing countries are: Malaysia, Indonesia, Nigeria, Thailand, Colombia, Papua New Guinea, Ecuador, Costa Rica, Congo, etc. Malaysia is the largest producer of palm oil in the world. Malaysia and Indonesia taken together contribute around 83% of the world's production.

The major consuming countries of palm oil are: China, Indonesia, European Union, India, Malaysia, Pakistan, Nigeria, Bangladesh, Thailand, Egypt, etc.

The major importers of palm oil are: China, European Union, India, Pakistan, Bangladesh, Egypt, Russia, Turkey, etc.

Major markets in the world for crude palm oil trading are: Bursa Malaysian Derivatives (BMD), Malaysia and Indonesia

Indian Scenario: India holds a very small share in world palm oil production. It hardly contributes to the world production and is not able to satisfy its domestic consumption demand. It produces a mere 70000 tons of palm oil annually i.e. just 0.2% share in the total world's produce. Kerala is the largest palm producing state in India with 30% share in the total production of the country. Godrej is the maximum oil palm plantation company in India producing over 20000 tons per year.

India is basically an importer of palm oil. The countries from which palm oil is imported are Malaysia and Indonesia. Regarding consumption, India ranks fourth in the world. The major demand arises from the food and cooking oil industries.

Major markets in India for crude palm oil trading are: Kandla, Mumbai, Kakinada, Chennai, Vijaywada, Haldia and Indore.

5.2.2.3 Factors Influencing Palm Oil Market

- The demand-supply and price scenario of competitive oils like Soyoil;
- The demand-supply scenario of oil consuming nations, viz. India, China and EU;
- Climatic/ weather conditions and production cycle: April-December (peak production period) &
- Import policies of importing nations.

5.2.3 RBD Palmolein

RBD Palmolein is a palm-based product which is suitable for human consumption as it is naturally rich in vitamin e. It is refined, bleached and deodorized form of palm oil which is extracted after crushing palm fruit. It is obtained from fractionating of refined palm oil to separate liquid parts (olein) from solid parts (stearin). It is a clear yellow liquid at room temperature. RBD palmolein is used as cooking oil as well as frying oil for food industries such as snack food and ready-to-eat food.

5.2.4 Soya Oil

Soyabean Oil/Soya Oil is the natural oil extracted from whole soyabeans. It is the most widely used oil in the United States, and is sold as either pure soyabean oil or as a main ingredient in vegetable oil. Processed into margarine and shortenings, soyabean oil's 85 percent-unsaturated fat profile is among the highest of the vegetable oils. About 97 percent of soyabean oil is used in a wide range of products for human use, such as cooking oils, salad dressings, sandwich spreads, margarine, salad oils, coffee creamer, mayonnaise, shortenings, chocolate coatings and flour ingredient medicines.

Soyabean oil is also used in such industrial products as printing inks, cosmetics, linoleum, vinyl plastics, paints, compounds, pesticides, glue, protective coatings, yeast, soaps, shampoos and detergents, rubber.

Soya beans on crushing and solvent extraction yield soya oil at 18% recovery and soyameal. In the global edible oil market, soya oil is leading vegetable oil after palm oil. Palm and Soyabean oils together constitute around 68% global edible oil trade volume, with soyabean oil constituting 22.85%

5.2.4.1 Indian Soy Oil Market and Price Fluctuations

Major vegetable oils used for culinary purpose in India are sunflower, groundnut, palm, soy, safflower, mustard etc. Among these sunflower oil finds its first place because of its healthy properties. In the recent past, soy oil usage has gathered momentum as it also contains healthy properties.

Like soya beans, the rate of production of soya oil in India is on an increasing level. Soya oil is considered as one of the most important edible oil in the country. It accounts for about 18% of total consumption of oils in the country. Production of soy oil in India

is not sufficient to meet the domestic demand. So in order to meet these shortages India imports soy oil. Edible oil market in India is highly price sensitive in nature. Hence, the quantity of soyabean oil imports mainly depends on the price competitiveness of soyabean oil vis-à-vis its sole competitor, palm oil. This also means that soyabean oil prices are highly influenced by palm oil prices in Malaysia, the market leader in palm oil production and exports.

In India, spot markets of Indore and Mumbai serve as the 'reference' market for soyabean oil prices. While the Indore price reflects the domestically crushed soybean oil, Mumbai price indicates the imported soy oil price. Futures trading in soyabean oil is also prevalent in many futures exchanges in the country, the prices of which are largely influenced by the international edible price movements (especially Malaysian palm oil and soyabean oil at CBOT), soyabean availability in domestic markets, demand for meal and other associated supply-demand factors of soyabean and its derivatives.

Soyabean oil is among the most vibrant commodities in terms of 'price volatility'. Its prominence in the international edible trade scene, concentration of production base in limited countries as against its widespread consumption base, its close link with several of its substitutes and its base raw material (soyabean) in addition to its co-derivative (soya meal), the nature of the existing supply and value chain, etc. throw tremendous opportunity for 'trade' in this commodity. The opportunity is further enhanced by the expected rise in consumption base and the consequent increase in imports of vegetable oils in the years to come.

5.2.5 Rapeseed Oil

Rapeseed oil is of vegetable origin and is obtained from crushed rapeseed by pressing or extraction. It is third leading edible oil after soy oil and palm oil. On crushing rapeseed, oil and meal are obtained. The average oil recovery from the seed is about 33%. The remaining is obtained as cake, which is very rich in protein and is used as animal feed. Rapeseed oil is a light yellow to brownish yellow oil. It is one of the most important vegetable oils. It has been used for cooking for centuries in Europe, India, China and Japan.

In India traditionally rapeseed/mustard oil is the most important oil. The pungency of the oil is considered as the major quality-determining factor. Therefore traditional millers producing unrefined oil are still more favored. But this results in adulteration. However with time refined oil is gaining popularity in India. Indian production of rapeseed oil is over 1.5 million tons.

5.2.6 Soyabean

Soyabean is a nutritious and versatile legume. Soyabeans range in size from as small as a pea to as large as a cherry. Soyabean pods are covered with a fine fuzz and range in color from tan to black while the beans themselves, can come in a variety of colors from red, yellow or black. Their flavor is bland but they are high in protein and low

in carbohydrates. Soyabean byproducts are used in making margarine, as emulsifiers in many processed foods, and in non-food items such as soaps and plastics. Soya bean belongs to the legume family of East Asia and is related to peas and clove. It is an oilseed bean, oval in shape, which is produced on a bush-like, green soyabean plant. Size of soya bean is like the size of a common pea. As, it provides oil and protein in bulk; soya bean is also called a miracle crop. It comprises around 45% proteins and 18% oil.

History: Origination of soya bean lies in the northeastern areas of China. It was cultivated about 5000 years ago and was considered as one of the sacred crops. Asian people have been eating soya beans and also using it in different medicines. Soya beans started to become popular and reached Japan and China by 1st century A.D. When introduced to U.S.A, soya bean was not given the due importance. In the early 1900's, it was a subject of testing for the American scientists. America introduced more varieties of soya bean during this period. After the 2nd world war, production of soya bean increased dramatically and since then the same scenario continues.

5.2.6.1 Cultivation

Soyabean is basically a summer crop (kharif), as it needs a hot and humid climate to prosper. Soyabean crop is usually sown in June in India. The harvesting period for soyabean crop in India comes around October-November. It is highly dependent on rain and a change in the rainfall pattern affects the production of soyabean.

Soyabean can be grown in from sandy soil to clay loam soil at different type of soils. Sandy clay loam, which is rich in organic matter, is suitable for soybean cultivation. Natural pH of soil should be 6.0-6.5 so the micro organism fixes the nitrogen from air easily and reach it to root nodules soil should be well drained because stagnant water for soybean crop is not good.

5.2.6.2 Major Producers of Soyabean

Major producers of soyabean are United States, Brazil, Argentina, China, India, Paraguay, Canada and Indonesia.

Country-wise area, production and productivity of Soybean in the world during 2004

Country	Area Harv (Ha)	Production (Mt)	Yield (Kg/Ha)
World	91,443,054	204,266,176	2233
Argentina	14,320,000	31,500,000	2199
Brazil	21,475,148	49,205,384	2291
Canada	1,177,500	3,048,000	2588
China	9,800,150	17,600,340	1795
India	7,200,000	5,500,000	763
Paraguay	1,870,000	3,583,680	1916
USA	29,930,060	85,483,904	2856

Indian Soya Market: Madhya Pradesh is the leading producing state of India and contributes to around 75% of the total Indian production and is also called the soya bean bowl in India. The other soya producing states include Maharashtra, Rajasthan, Karnataka, Uttar Pradesh, Andhra Pradesh, Nagaland and Gujarat. In India, Soyabean is traded at Indore, Ujjain, Dewas, Mandsore, Astha, Nagpur, Sangli and Kota. Besides soy is also traded in various Indian exchanges like NCDEX, MCX & NMCE.

International Trading centers of Soy: Chicago Board of Trade (CBOT); Dalian Commodity Exchange, China; Argentina; Brazil are few of the major trading centers.

5.2.6.3 Factors Affecting Soya

- Weather most importantly during the pod bearing period.
- Prices of the competitive commodities including oils.
- Movement in prices in the international market.
- Pests and diseases.
- Fundamentals of the feed sector.
- Infections affecting poultry and cattle.

5.2.7 Rapeseed

Rapeseed (Brassica napus), is a bright yellow flowering member of the family Brassicaceae (mustard or cabbage family). It is also known as Canola in many countries. Rapeseed/ mustard seed have great importance in many countries as spices. But, these seeds have important by-products too. Rapeseeds and mustard seeds are sources of rapeseed/ mustard seed oil and oilcake. Yellow colored oil is obtained by extraction process of the crushed rape/mustard seeds. In the market, rapeseed oil is not distinguished from mustard oil as both of these come from the same species and possess same properties. During the production of oil, pressed cakes of the seeds are left over that have some amount of oil content. These cakes are distilled to make oil cakes, which serves as an animal feed.

5.2.7.1 Cultivation

Rapeseed cultivation is done widely throughout the world. It is basically a winter crop and it requires a temperate climate to prosper. The planting season or the sowing period in India is during the Rabi season i.e. October to November. The crop starts flowering in the months of November, December, January and February. The harvesting period is from February to March. It needs a right proportion of rainfall.

5.2.7.2 Major Rapeseed Producing Countries

Global Scenario: Major rapeseed producing countries across the world are: China, Canada, India, Germany, France, Australia, Pakistan, Poland, Japan, Australia, Bangladesh, Belgium, Denmark, Mexico, Austria, Nepal, Russia, Bhutan, Finland, Myanmar and UK.

Indian Scenario: India produces around 5 million tones of rape/mustard annually and contributes around 11% of the world's total production. Also it is third largest producer of rape/mustard oil in the world. Rajasthan is the leading rape/mustard producing state in India. Other producing states of India are: Uttar Pradesh, Haryana, Punjab, Gujrat, Mafhya Pradesh, Jammu and Kashmir, West Bengal, Punjab, Assam, Bihar, Himachal Pradesh and Orissa.

India is an exporter of rape/mustard oilcake and exports it to Bangladesh, China, Italy, Japan, Malaysia and Thailand.

5.2.7.3 Market Influencing Factors

- Demand supply scenario and prices of other edible oils;
- Weather concerns, pests and diseases;
- Hoarding and speculation;
- Consumption of by-products and
- Production fluctuations.

5.3 Precious Metals

The NCDEX started trading in following precious metals - gold and silver. We will look briefly at both.

5.3.1 Gold

Gold has been a highly sought-after precious metal for many centuries and has been used as money, a store of value and in jewellery. It is one of the coinage metals. It is a dense, soft, shiny, yellow metal, and is the most malleable and ductile of the metals. The Latin name for gold is aurum which means glowing dawn. Gold has been used as a symbol for purity, value and royalty. Its value has been used as the standard for many currencies (known as the gold standard) in history.

Gold has been known from prehistoric times and was possibly the first metal used by humans. It was valued for ornaments and magical efficacy was attributed to it. In the Middle Ages alchemists sought to transmute base metals into gold. During the 19th century the quest for gold stimulated many a gold rush. The first major gold rush in the US occurred in a small north Georgia town called Dahlonega. Further gold rushes occurred in California, Colorado, Otago, Australia, Witwatersrand, Black Hills and Klondike.

Pure gold is too soft for ordinary use Gold. So it is hardened by alloying with copper, silver or other metals. White gold, a substitute for platinum, is an alloy of gold with platinum, palladium, nickel, or nickel and zinc. Green gold, also used by jewelers, is usually an alloy of gold with silver. Alloys of gold with copper are a reddish yellow and are used for coinage and jewelry.

5.3.1.1 Applications of Gold

In various countries, gold, and its many alloys, are most often used in jewelry, coinage and as a standard for monetary exchange. Because of its high electrical conductivity and resistance to corrosion and other desirable combinations of physical and chemical properties, gold has emerged in the late 20th century as an essential industrial metal, particularly when used as a thin plating on printed circuit board contacts and electrical connectors. As gold is a good reflector of both infrared and visible light, it is used for the protective coatings on many artificial satellites and on astronauts' helmets to prevent blindness from the Sun. Gold is also used by dentists in tooth restoration.

5.3.1.2 Major Gold Producers

The chief producers are South Africa, the United States (especially in Nevada and Alaska), Australia, Canada, Russia, China, Brazil, Uzbekistan, Papua New Guinea, and Indonesia.

5.3.1.3 Indian Gold Market

In India Gold is considered as a savings and investment vehicle and is the second preferred investment after bank deposits. The gold holding tendency is well ingrained in Indian society.

India is the world's largest consumer of gold in jewellery as investment. India consumes around 18% of the total world's production.

Domestic demand and consumption is dictated by monsoon, harvest and marriage season. Indian jewellery buying is quite sensitive to price fluctuations. Indian demand for gold also exhibits income elasticity, particularly in the rural and semi-urban areas.

In the cities gold is facing competition from the stock market and a wide range of consumer goods.

5.3.1.4 Market Moving Factors

- Supplies from mine production, reclaimed scrap
- Purchases and sales by central banks, official gold loans
- Producer / miner hedging interest
- World macro-economic factors - US Dollar, Interest rate, Geo political tensions, etc.
- Comparative returns on stock markets
- Domestic demand based on monsoon and agricultural output

Gold Price Linkages: There is a significant positive correlation between the movements of gold prices and EURO levels. The demand for gold as well as the prices also goes up with an increase in oil prices. Increases in oil prices have a major impact on inflation as most of the inflation indices give a lot of weight to the increase in oil prices (30-

35 per cent). Hence, increase in oil prices result in an increase in inflation and people buy gold to hedge against inflation. Research indicates that there is a fair degree of positive price correlation between gold and silver, although this has lessened in the recent years.

5.3.2 Silver

The word Silver is derived from the Anglo-Saxon word seolfor. Silver's chemical symbol (Ag) comes from the Latin word for silver, Argentum. Silver can be obtained from pure deposits, from silver ores such as argentite and horn silver, and in conjunction with deposits of ores containing lead, gold or copper.

Mankind's timeless fascination with silver stretches long back. As early as 700 B.C., the Mesopotamian merchants used silver as a form of exchange. Later, many other civilizations also came to recognize the inherent value of silver as a trading metal. Today, millions of people throughout the world recognize silver's intrinsic value and have made it popular as an affordable investment.

Silver is a commodity that is traded 24 hours a day in the world's market centers - London, Zurich, New York, Chicago and Hong Kong. Although London remains the true center of the physical silver trade for most of the world, the most significant paper contracts trading market for silver in the United States is the COMEX division of the New York Mercantile Exchange.

5.3.2.1 Demand

Demand for Silver is broadly based on three main pillars; i.e. industrial and decorative uses, photography and jewelry & silverware. The reasons for being in such demand is because silver has a number of unique properties that include its strength, malleability and ductility, its electrical and thermal conductivity, its sensitivity to and high reflectance of light and the ability to endure extreme temperature ranges. Silver's unique properties restrict its substitution in most applications.

Following are some of the various Applications of Silver: Batteries, Bearings, Brazing and Soldering, Catalysts, Coins, Electrical, Electronics, Electroplating, Photography, Medical Applications, Jewelry and Silverware, Mirrors and Coatings, Solar Energy, Water Purification, etc.

5.3.2.2 Supply

Top 20 Silver producing Countries are: Peru, Mexico, Australia, China, Chile, Russia, Poland, United States, Canada, Kazakhstan, Bolivia, Indonesia, Sweden, Morocco, Argentina, Turkey, South Africa, Iran, Uzbekistan and India.

Some of the world's leading Silver Mines are: Cannington (operated by BHP Billiton) in Australia; Fresnillo in Mexico; Dukat in Russia; Uchucchacua in Peru; Greens Creek in US; Arcata in Peru; Imiter in Morocco; Rochester in US; Tayahua in Mexico, Lunnoye in Russia; etc.

5.3.2.3 Factors Affecting Silver Prices

A primary factor affecting the price of silver is the available supply versus fabrication demand. As the available sources continue to decline, silver's fundamentals continue to strengthen. However, since silver is a tangible asset, and is recognized as a store of value, its price can also be affected by changes in things such as inflation (real or perceived), changing values of paper currencies, fluctuations in deficits and interest rates, and geo-political tensions, etc.

Key Terms Introduced in the Chapter

• Commodities • Barter System • Cotton Fiber • Cotton Seed • Staple Cotton • Cotton Yarn • Tropical Crop • Khariff Crop • Soyabean Oil • Rapeseed Oil	• NCDEX • Cotton • Soyabean • Rapeseed • Gold • Silver • Soya Oil • Mustard Oil • Rabi Season Mustard Seed	• Commodity Exchange • Crude Palm Oil • Crude Palmolien • RBD Palmolien • Palm Kernel Oil • Reclaimed Scrap • Hedging Interest • Fabrication Demand	• Commodity Futures Contract • Price Discovery Mechanism • Risk Transfer System • Cotton Seed Oilcake • Minimum Support Price • Single Stemmed Tree • Refined Bleached Deodorized Palm Oil • Standard for Monetary Exchange • World Macro-economic Factors

Summary with Reference to Learning Objectives

- In 1875, the setting up of "Bombay Cotton Trade Association Ltd." evolved the organized futures market in India. In 1994, Kabra committee assessed the role of futures trading in India and recommended it in certain commodities. MCX and NCDEX were established in Nov. and Dec. 2003 respectively. Forward Market Commission (FMC) is the regulating body.
- The main difference between physical and futures commodity market is the organized nature of trading and the quality specifications. While the physical market's price can vary depending on the centers of trading, futures have the same price all over India and the quality specifications are stringent.
- The main difference between physical and futures markets in normal sense is that the futures are the price determinates of the physical market. The futures market includes the cost of carry in their prices over the spot (cost of carry being the gains subtracted from storage cost and interest of financing for purchasing the asset).
- Commodity futures market perform the price risk management function of an economy as the futures trading determine the prices of the physical market in advance and ensure that there are no larger deviations from the prices that the buyers and sellers opt for (helpful in the sense that the participants are from all over India and not localized and limited to the commodity center only)
- Apart from the perception of market participants, agricultural commodities' prices are dependant on the agricultural conditions such as rainfall, production, consumption patterns etc. whereas precious metals are dependant on world prices and have strong correlation with dollar, euro etc. Other metals are also dependant on mining practices etc.

Questions for Practice

Short Answers

1. List out the producing regions of cotton in India?
2. What are the factors that influence the prices of cotton?
3. List the top three consumed edible oil worldwide?
4. What are the factors that influence the prices of edible oils?
5. What makes gold special?
6. What are the factors that influence the prices of gold?
7. List the producing countries of silver in the world?
8. What are the factors that influence the prices of silver?
9. List out the producing regions of soya bean in India?
10. What are the factors that influence the prices of soya?

Long Answers

1. What is Commodity Exchange?
2. What is meant by Commodity?
3. What is Commodity derivatives market?
4. What are the benefits of trading in commodities?
5. What is the meaning of 'futures contracts'?
6. What are the salient features of a 'commodity futures contract'?
7. What are the main differences between the physical and futures market?
8. Explain the suitability of gold futures contracts?
9. What is price risk management? How does a commodity futures market perform this economic function?
10. How does a commodity futures exchange help in price discovery and price risk management?

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